

Capacity Gaps



Capacity gap: Azerbaijan

Overview

Azerbaijan's overall capacity score is in the low range based on the ECI 2025. Azerbaijan is positioned in the lower-left quadrant of the Engineering Capability Matrix, indicating a potentially elevated risk of harm because of unsafe engineering practices. Although Azerbaijan ranks relatively well on safety outcomes measured in the SQI, it ranks relatively low on engineering quality indicators. For example, it ranks at 101 out of 115 geographies on transportation and logistics infrastructure.

Azerbaijan experienced significant growth in the 2000s due to its expanding oil and gas industry. Over the years, the government has invested heavily in the oil and gas sector. However, a lack of government spending in nonenergy sectors combined with a relatively strong currency, the manat, as a result of large export earnings from oil has weakened the international competitiveness of many other Azerbaijani production sectors. Going forward, the economy is expected to remain largely undiversified and highly commodity dependent, which may limit opportunities for developing engineering capacity outside of the oil and gas sector.¹

Professional engineers

According to the ECI 2025, the largest capacity gap for Azerbaijan's professional engineers is in skills and experience compared to the regional benchmark; compared to the global benchmark, the largest gap is in academia. Although Azerbaijan's tertiary engineering graduation rate ranks in the top half of the 115 geographies in the ECI 2025, these are not necessarily translating into engineering jobs. The size of the engineering labour force relative to the size of its population ranks in the bottom half. The energy sector employs few Azeris. The best-paid jobs are often held by the elite and foreigners, providing little benefit to the majority of the population.

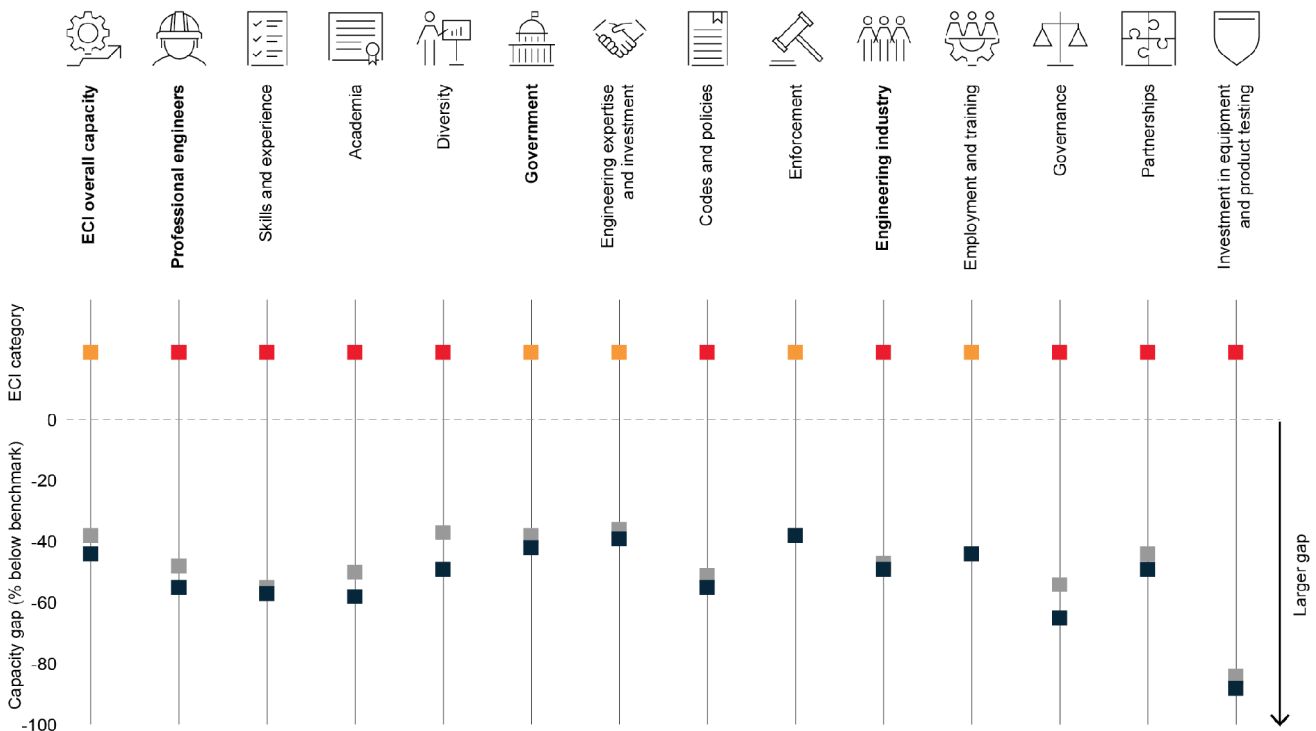
¹ Here and throughout, we reference S&P Global Market Intelligence country reports. These reports are updated monthly by a team of country analysts. Country reports between September 2023 and September 2025 were used for the capacity gap analyses.

Government

The largest capacity gap for Azerbaijan's government compared to both the regional and global benchmarks in the ECI 2025 is in codes and policies.

Azerbaijan capacity gap

■ Global benchmark ■ Regional benchmark ■ Advanced capacity ■ High capacity ■ Adequate capacity ■ Low capacity ■ Inadequate capacity



As of Jan. 5, 2024.
If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.
Source: S&P Global Market Intelligence.
© 2025 S&P Global.

Data from the World Bank ranks Azerbaijan's perceptions of regulatory quality at 70 out of the 115 geographies. Furthermore, there is a gap in the government's engineering expertise and investment that is likely interdependent with the codes and policies capacity. Data from the World Bank reveals that Azerbaijan allocates approximately 0.1% of total government spending to water, electricity and fuel systems, significantly lower than the global average of 3.6%.

Engineering industry

According to the ECI 2025 scores, the largest capacity gap for Azerbaijan's engineering industry is in investment in equipment and product testing compared to the regional and global benchmarks. Azerbaijan ranks in the bottom 20 of 115 geographies in the value of engineering safety equipment imported and exported. Industry governance is also scored as inadequate and has the second largest gap, which may contribute to the gap in safety and product testing. Azerbaijan could potentially use its relatively stronger capacity in partnerships to help inform better governance standards. This could help close some of the largest gaps for its engineering industry.

Capacity gap: Kazakhstan

Overview

Kazakhstan's overall engineering capacity score is in the low range based on the ECI 2025. It is in the lower-left quadrant of the Engineering Capability Matrix, indicating a high risk of harm from unsafe engineering practices. Kazakhstan has a relatively high average number of fatal and nonfatal injuries in the construction, manufacturing and mining sectors. Furthermore, Kazakhstan's road quality ranks at 80 out of 115 geographies in the ECI 2025. In contrast, it has relative strength in the diversity of its engineering workforce, which ranks as high capacity.

Professional engineers

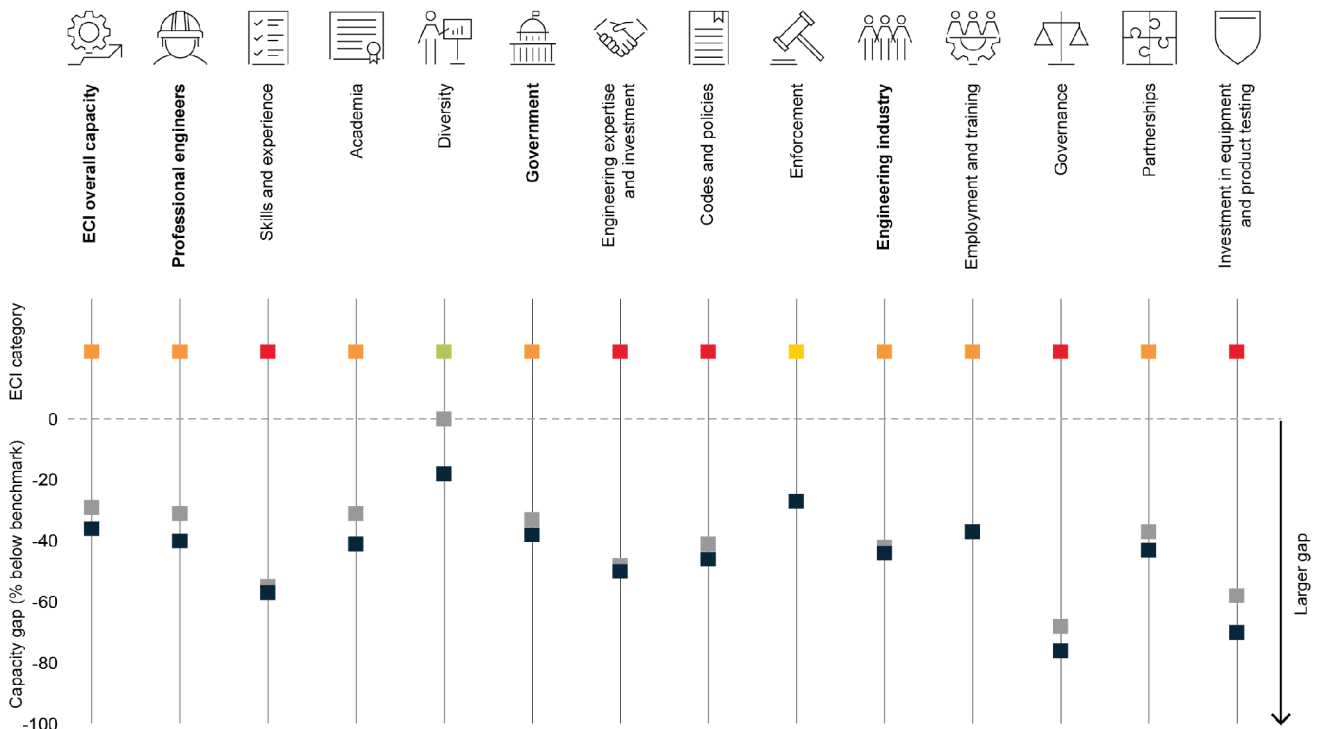
The ECI 2025 indicates that the largest capacity gap for Kazakhstan's professional engineers is in skills and experience compared to the regional and global benchmarks. Kazakhstan struggles with a shortage of skilled labour and has a low number of engineers relative to its population. Kazakhstan can, however, leverage its strength in workforce diversity, where it is the regional benchmark to build capacity in skills and experience. For example, mentorship programmes can help attract more people to engineering and guide them in acquiring the necessary skills.

Government

The ECI 2025 indicates that Kazakhstan's government has the largest capacity gap in engineering expertise and investment compared to the regional and global benchmarks. This suggests a need for more engineering perspectives in government and is underscored by the lower investment in infrastructure- and engineering-related projects compared to the regional and global benchmarks. The enforcement score is an area of relative strength for Kazakhstan, and it ranks in the top 20 for its permitting management. The current president launched an industrialisation programme in 2022 to promote economic diversification, import substitution and green energy transition. The programme aims to reduce greenhouse gas emissions by 15% (from 1990 levels) by 2030 and to achieve carbon neutrality by 2060. With strong enforcement, this programme could be used to encourage investment. However, these government commitments rely on professional engineers and the engineering industry working together to achieve them.

Kazakhstan capacity gap

■ Global benchmark
 ■ Regional benchmark
 ■ Advanced capacity
 ■ High capacity
 ■ Adequate capacity
 ■ Low capacity
 ■ Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Engineering industry

According to the ECI 2025, the largest capacity gap for Kazakhstan's engineering industry is in governance compared to the regional and global benchmarks. This is closely followed by its second-largest gap, which is investment in equipment and product testing. These two are highly interdependent capacities and will be critical to address the country's ambitious diversification goals. Kazakhstan can leverage its relative strength in partnerships, particularly with international standards bodies, to develop active standards around safety and to support its increasingly diversified engineering needs.

Capacity gap: Kyrgyzstan

Overview

Kyrgyzstan's ECI 2025 score shows overall engineering capacity in the inadequate range for all three stakeholder groups. However, it has relative strength in the diversity of its professional engineers, where it has adequate capacity. Kyrgyzstan is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. Kyrgyzstan ranks at 95 out of the 115 geographies for road quality and at 97 out of 115 geographies on the Global Quality Infrastructure Index.²

Professional engineers

The ECI 2025 indicates that the largest capacity gap for Kyrgyzstan's professional engineers is in skills and experience when compared to the regional benchmark, and in academia when compared to the global benchmark. Kyrgyzstan struggles with a significant skilled labour shortage, which is reflected in the skills and experience score. Although it ranks in the top half when it comes to engineering graduation rates at university level, and many of these graduates work in the engineering field (ranking

in the top half of the 115 countries), the number of accredited engineering programmes ranks in the bottom half.

Government

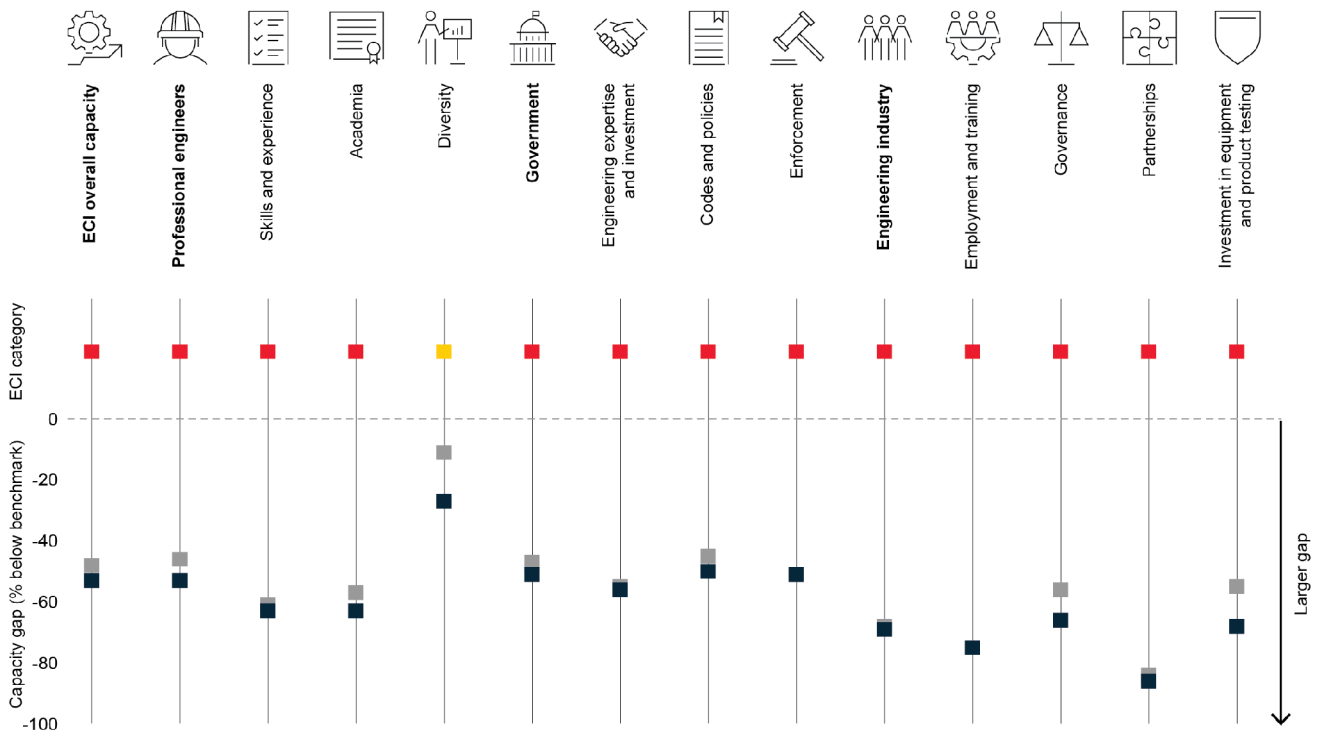
According to the ECI 2025, the largest capacity gap for Kyrgyzstan's government is in engineering expertise and investment when compared to the regional and global benchmarks. However, it has a score of inadequate capacity across all three government capacity areas. Kyrgyzstan's domestic politics remain turbulent, with more than 30 different prime ministers since its independence in 1991.

The current president's cabinet has already experienced several reshuffles. In October 2022, four critical ministers – for transport and communications, energy, education and science, and culture – were dismissed simultaneously, impacting the geography's overall engineering capacity. The instability may make it difficult to push reforms and maintain current codes and policies that can help increase engineering safety and quality.

² Global Quality Infrastructure Index (GQII) Program – An initiative for open data and knowledge on metrology, standardisation, accreditation and related services

Kyrgyzstan capacity gap

■ Global benchmark ■ Regional benchmark ■ Advanced capacity ■ High capacity ■ Adequate capacity ■ Low capacity ■ Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Engineering industry

According to the ECI 2025, the largest capacity gap for Kyrgyzstan's engineering industry is partnerships when compared to the regional and global benchmarks. This is also its largest capacity gap overall. Strengthening partnerships could help strengthen the other capacity areas through sharing of regional and international knowledge, practice and skills. Its strongest capacity area across all 10 capacities is the diversity of its engineering workforce. This capacity is most strongly correlated with the engineering industry's capacity for investment in equipment and product testing. Investment in equipment and training is most strongly correlated with government codes and policies. Government codes and policies currently have the second-smallest capacity gap, after diversity. Diverse perspectives within the engineering professional community could be used to help further strengthen the codes and policies by helping identify areas that may be missed. By doing so, the engineering industry might have increased incentive to invest in equipment and product testing. This could help bolster the industry overall and increase the skills and experience of professional engineers, which also has a strong connection to the capacities of engineering industries.

Capacity gap: Thailand

Overview

Thailand's overall engineering capacity score is in the low range, according to the ECI 2025. Thailand is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. Although Thailand performs in the top half globally on the Global Quality Infrastructure Index³ and the World Bank's Logistics and Transportation Infrastructure Index, it has high infrastructure disruption risk, according to S&P Global Market Intelligence data and low performance on the Yale Environmental Performance Index.

Professional engineers

According to the ECI 2025, the largest capacity gap for Thailand's professional engineers is skills and experience when compared to the regional and global benchmarks. Thailand scored in the bottom half of countries in terms of the general level of skills and education of its workforce.⁴ Its academic capacity area is ranked low; however, it ranks in the top 10 of the 115 geographies for engineering graduates (relative to the size of

its population). This indicates that there is a potential disconnect between graduating with an engineering or related degree and entering the workforce; Thailand ranks in the bottom half for the number of engineering professionals in the workforce. This is exacerbated by the fact that the country is experiencing a low population growth rate, resulting in an actual decline in the number of potential workers in the labour force since 2020, according to S&P Global Market Intelligence country reports.

Government

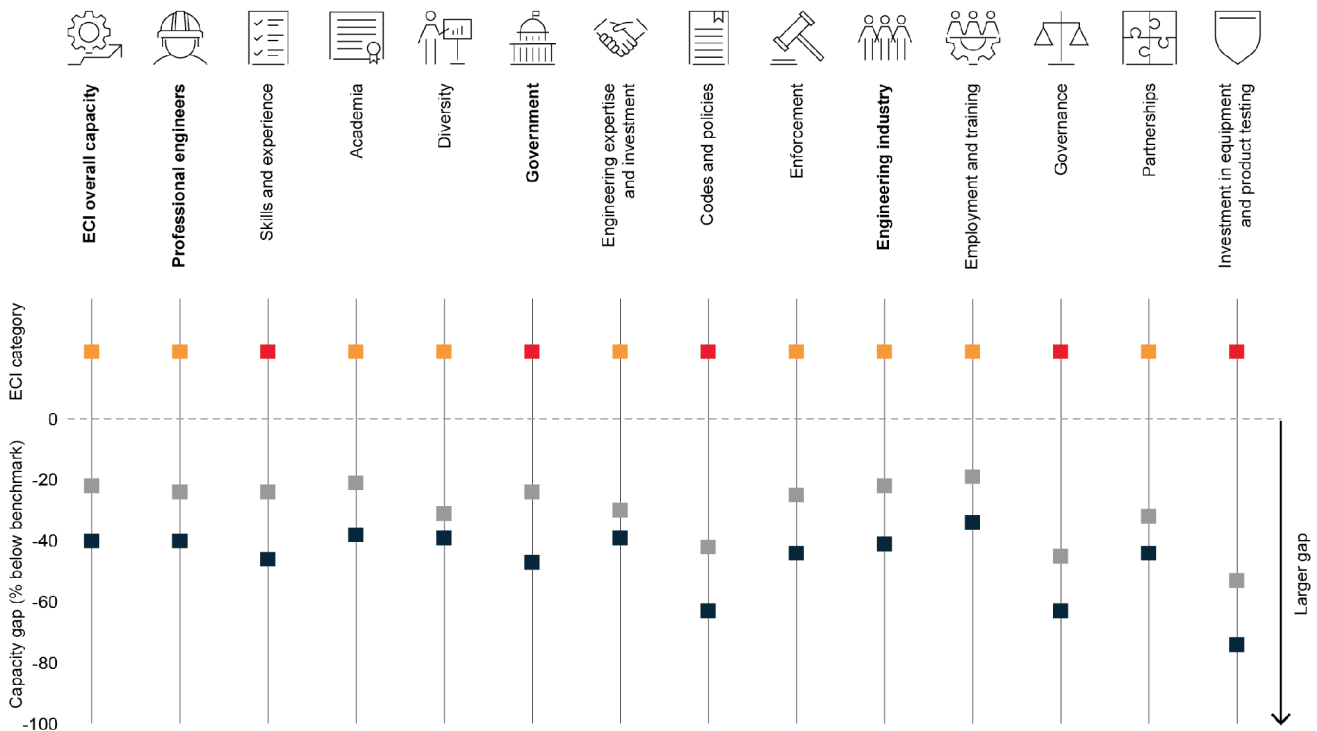
According to the ECI 2025, the largest capacity gap for Thailand's government is codes and policies when compared to the regional and global benchmarks. Thailand ranks in the bottom half of the 115 geographies in perception of regulatory quality. According to S&P Global Market Intelligence country reports, 40% of the growth in the labour force is in the agriculture sector, which has created a political divide between the urban population and the rural majority. This has resulted in cycles of political unrest, which successive governments have sought to appease through fiscal incentives. Political divisions can make it more difficult to pass legislation.

³ Global Quality Infrastructure Index (GQII) Program – An initiative for open data and knowledge on metrology, standardisation, accreditation and related services

⁴ World Economic Forum Executive Opinion Survey 2021.

Thailand capacity gap

■ Global benchmark
 ■ Regional benchmark
 ■ Advanced capacity
 ■ High capacity
 ■ Adequate capacity
 ■ Low capacity
 ■ Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Engineering industry

According to the ECI 2025, the largest capacity gap for Thailand's engineering industry is in investment in equipment and product testing when compared to the regional and global benchmarks. Thailand's engineering-intensive industries have a relatively high risk score, according to S&P Global Market Intelligence data. This capacity gap is closely related to the capacity gap in governance, which also scored as inadequate and is Thailand's second-largest capacity gap. Overall, it may indicate the lack of a safety culture. The adequate capacity in engineering employment and training is a strength that could potentially be leveraged to incorporate more safety training.

Capacity gap: Mongolia

Overview

The ECI 2025 shows Mongolia's overall engineering capacity score is in the low range relative to the 115 geographies. However, it scores in the adequate capacity range in engineering expertise and investment of its government bodies and partnerships in the engineering industry. Mongolia is in the lowerleft quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. Mongolia has a high infrastructure disruption risk, ranking in the bottom half of the 115 geographies in the ECI 2025.

Professional engineers

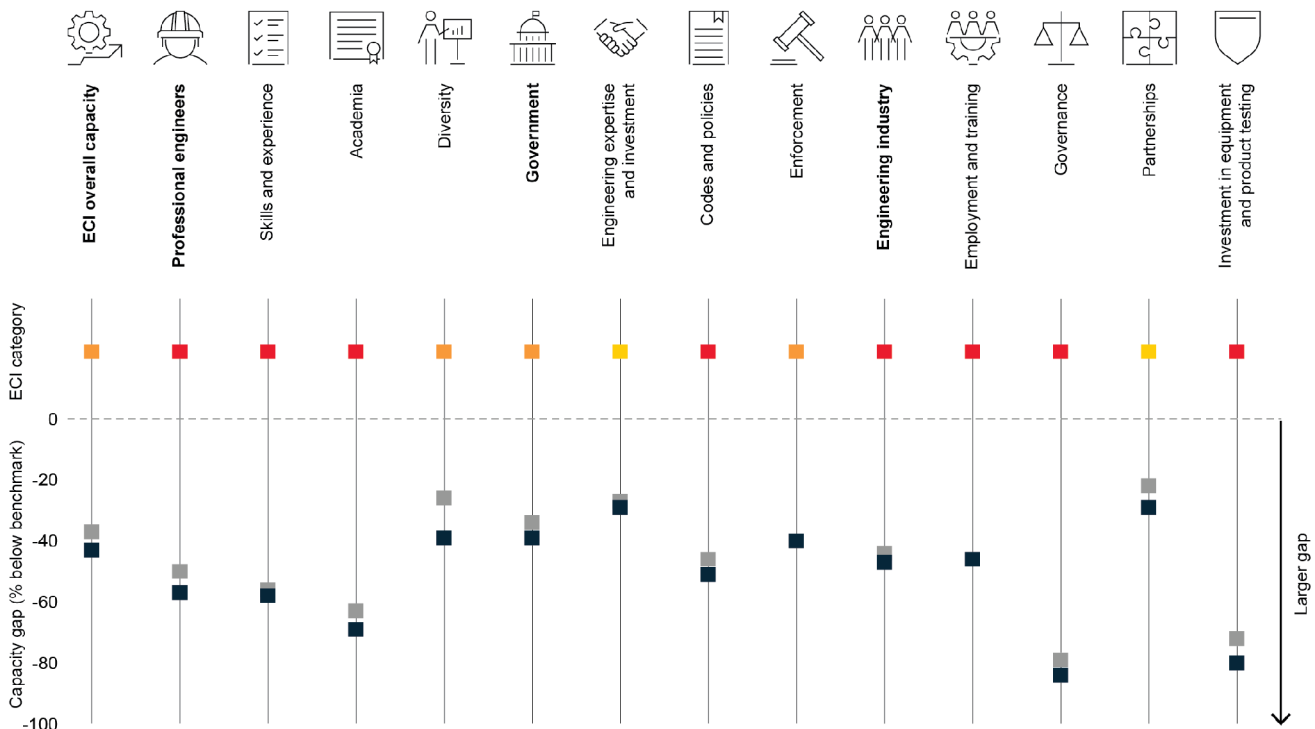
According to the ECI 2025, the largest capacity gap for Mongolia's professional engineers is in academia when compared to the regional and global benchmarks. In particular, the percentages of tertiary STEM and engineering graduates both rank in the bottom 25% of the 115 geographies. This may also contribute to the skills and experience capacity area gap, as Mongolia faces a significant shortage of skilled labour, including engineers.

Government

According to the ECI 2025, the largest capacity gap for Mongolia's government is in codes and policies when compared to the regional and global benchmarks. According to World Bank data, the perception of its regulatory quality and government effectiveness ranks in the bottom half of the 115 geographies. While this is a challenging combination to address effectively, both factors are essential for providing the necessary oversight and structure required to reduce the risk of harm from unsafe engineering practices. The government's relative strength in engineering expertise and investment can potentially be leveraged to help make progress to close capacity gaps in the other areas. The government's commitment to engineeringintensive production was demonstrated in April 2022 with the presentation of the 'Revival Strategy'. This strategy outlines six key policy areas to focus on until at least 2031, including developing land ports, upgrading energy infrastructure, enhancing industrial capacity, and improving state productivity.

Mongolia capacity gap

■ Global benchmark ■ Regional benchmark ■ Advanced capacity ■ High capacity ■ Adequate capacity ■ Low capacity ■ Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Engineering industry

According to the ECI 2025, the largest capacity gap for Mongolia's engineering industry is governance when compared to the regional and global benchmarks. Mongolia has a huge natural resource endowment, largely composed of copper, coal, iron ore, zinc, and gold. Strong governance is especially important to ensure safe and ethical mining practices for the local population and environmental ecosystem. Its adequate capacity score and relatively small gap in partnerships could be leveraged to help write governance standards. These become even more important if government codes and policies continue to show a large gap. Mongolia has many active trade unions, nongovernmental organisations and a vibrant free press, which can also help push for high governance standards.

Capacity gap: Bangladesh

Overview

Bangladesh's overall engineering capacity score is in the inadequate range, according to the ECI 2025. Bangladesh is in the lower-left quadrant in the Engineering Capability Matrix, indicating it might have an elevated risk of harm because of unsafe engineering practices. According to International Labour Organisation data, Bangladesh has relatively high average numbers of fatal and nonfatal injuries in the construction, manufacturing and mining industries. Bangladesh also ranks relatively low, compared to the 115 geographies, on the World Economic Forum's measure of road quality and on the World Bank's measure of logistics and transportation infrastructure quality.

Professional engineers

According to the ECI 2025, the largest capacity gap for Bangladesh's professional engineers is in academia when compared to the regional and global benchmarks. Bangladesh ranks in the top half of the 115 geographies on the number of accredited engineering programmes but may struggle with getting enough students into engineering programmes.⁵ According to

the ECI 2025, its tertiary education rates in engineering and STEM programmes rank low.

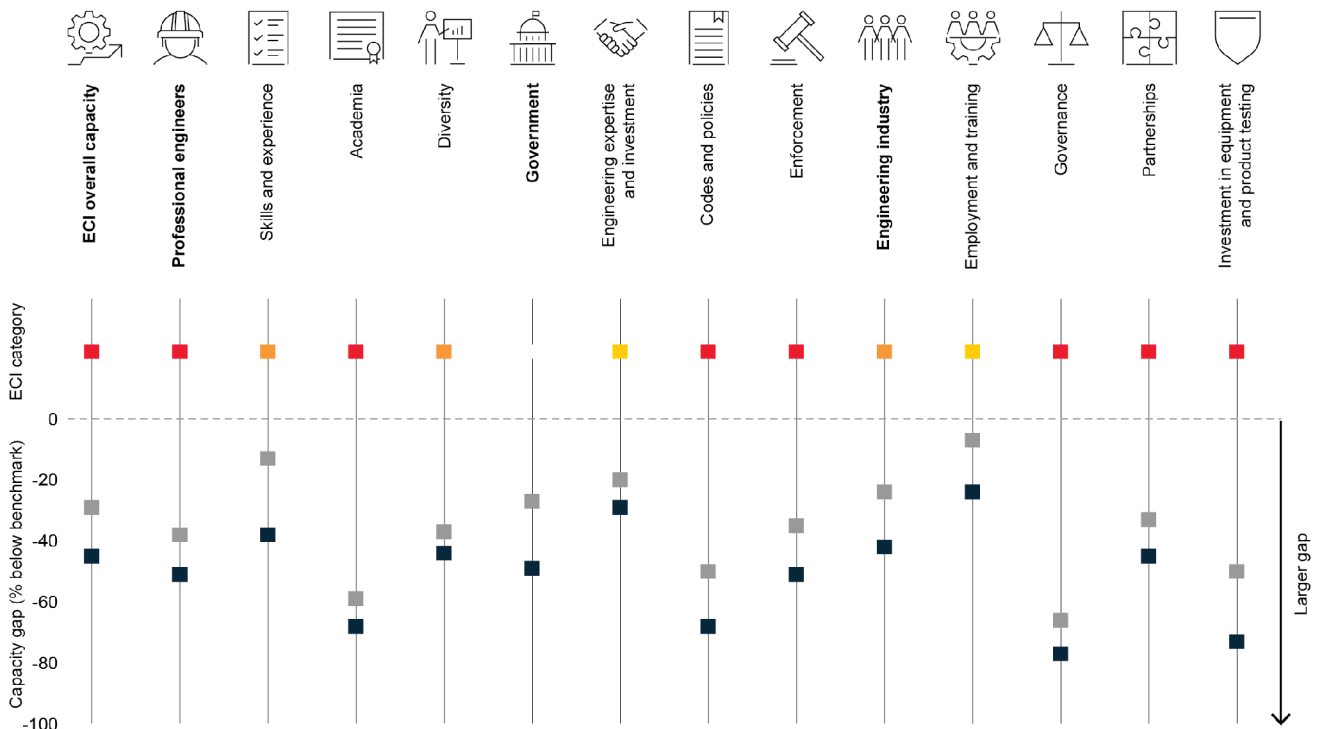
Government

The ECI 2025 shows that the largest capacity gap for Bangladesh's government is in codes and policies when compared to the regional and global benchmarks. Bangladesh ranks in the bottom 15 of 115 geographies in perceptions of regulatory quality based on World Bank data. However, it has relative strength in engineering expertise and investment. This capacity could be used to help develop and enforce codes and policies around engineering safety best practices.

⁵ The 2025 Times Higher Education Ranking of Engineering Universities that came out after the ECI 2025 was completed shows an improvement for Bangladesh, signalling that it continues to develop its capacity in this area.

Bangladesh capacity gap

Global benchmark Regional benchmark Advanced capacity High capacity Adequate capacity Low capacity Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Engineering industry

According to the ECI 2025, the largest capacity gap for Bangladesh's engineering industry is in governance when compared to the regional and global benchmarks. On the other hand, Bangladesh boasts a strong score in its employment and training capacity. Working through partnerships with international organisations and leveraging its employment and training capacity to implement safety training and awareness could help introduce engineers to industry-leading practices and drive a stronger safety culture. This could reduce gaps in governance, which in turn may help reduce gaps in investment in equipment and product testing.

Capacity gap: Nepal

Overview

Nepal's overall engineering capacity score is in the inadequate range, according to the ECI 2025. Nepal is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. It scores low on the Global Quality Infrastructure Index⁶ and has high infrastructure risk, measured by S&P Global Market Intelligence data. However, it is strong in engineering expertise and investment in its government bodies, where it has advanced capacity.

Professional engineers

According to the ECI 2025, the largest capacity gap for Nepal's professional engineers is in skills and experience when compared to the regional and global benchmarks. Nepal ranks at 114 out of 115 geographies in the average years of experience for engineers. This capacity area is closely linked with academic capacity, which also scores in the inadequate range for Nepal. According to S&P Global Market Intelligence country reports, well over 60% of Nepal's population is between the ages of 15 and 64,

but high illiteracy rates contribute to a shortage of skilled workers, where it ranks at 111 out of 115 geographies, according to S&P Global Market Intelligence data.

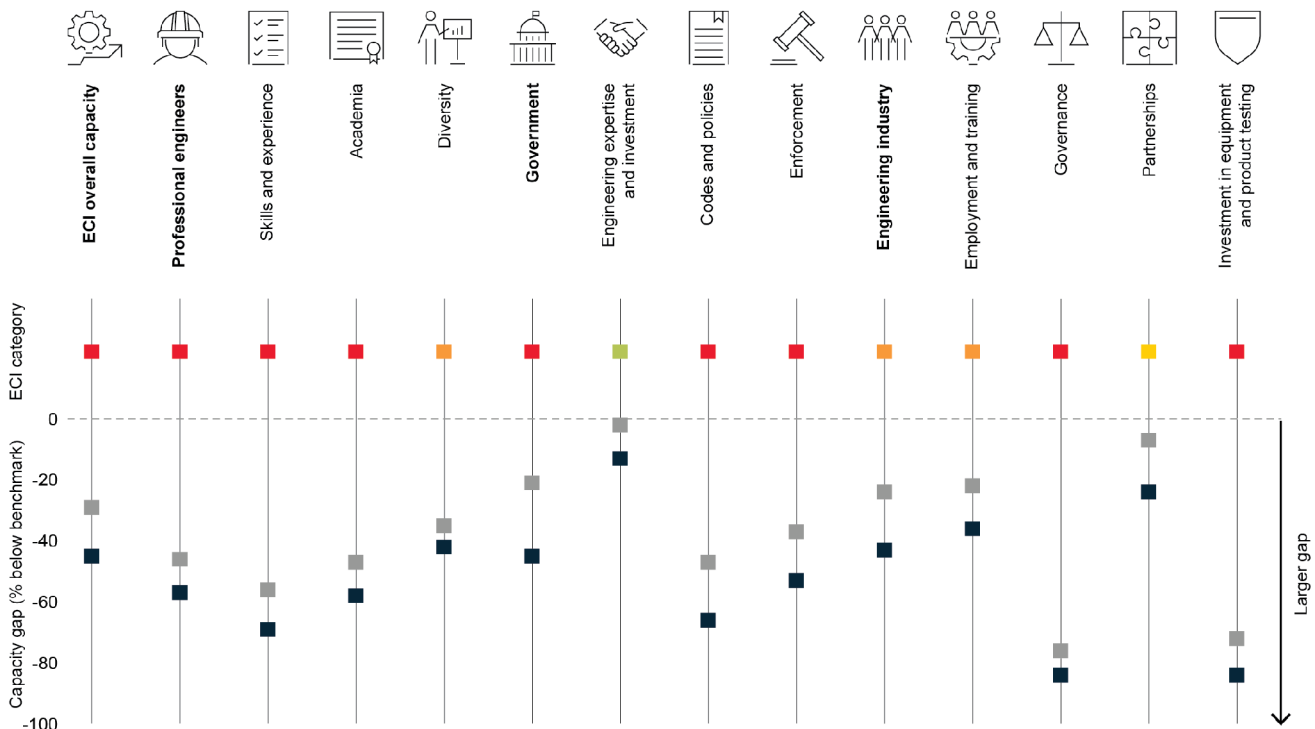
Government

According to the ECI 2025, the largest capacity gap for Nepal's government is in codes and policies compared to the regional and global benchmarks. Nepal has high capacity in its government expertise and investment. However, it has large gaps in codes and policies and enforcement, which may signal a lack of safety culture. Nepal could leverage its strength in expertise and investment by channelling more resources into closing these gaps to help improve overall safety.

⁶ Global Quality Infrastructure Index (GQII) Program – An initiative for open data and knowledge on metrology, standardisation, accreditation and related services

Nepal capacity gap

■ Global benchmark ■ Regional benchmark ■ Advanced capacity ■ High capacity ■ Adequate capacity ■ Low capacity ■ Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Engineering industry

According to the ECI 2025, the largest capacity gap for Nepal's engineering industry is in governance when compared to the regional and global benchmarks. The strongest capacity is partnerships, where it scores in the adequate category. The Nepal Engineers' Association (NEA), which coordinates the activities of the individual professional societies (such as Agricultural and Computer Engineers), is responsible for developing relationships with international engineering organisations. NEA is a member of both global and regional engineering bodies and has several bilateral partnerships including with Bangladesh, India and Sri Lanka.⁷ While for many countries in the region, partnerships and governance often show similar gaps, Nepal's partnership gap is considerably smaller than its governance gap. This suggests that Nepal could make more use of these partnerships to import knowledge, standards, and leading industry practices, potentially increasing the governance of its engineering industries, as well as to develop standards, codes and policies.

Capacity gap: Pakistan

Overview

Pakistan's overall engineering capacity score is in the inadequate range, according to the ECI 2025. Pakistan's strongest capacity areas are the diversity of its engineering workforce and the engineering expertise and investment of its government bodies. Pakistan is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. According to International Labour Organisation data, it has the highest average number of fatal injuries in the construction, manufacturing, and mining industries of the 115 geographies.

Professional engineers

According to the ECI 2025, the largest capacity gap for Pakistan's professional engineers is in academia when compared to the regional and global benchmarks. The World Bank's harmonised test scores in STEM subjects show Pakistan in the bottom five of the 115 geographies measured in the ECI 2025. Meanwhile, Pakistan ranks in the bottom 10 in the ECI 2025 for graduates from tertiary education in engineering fields, according to UNESCO data. Academia is closely connected to the engineering professionals' skills and experience, which also shows a low capacity

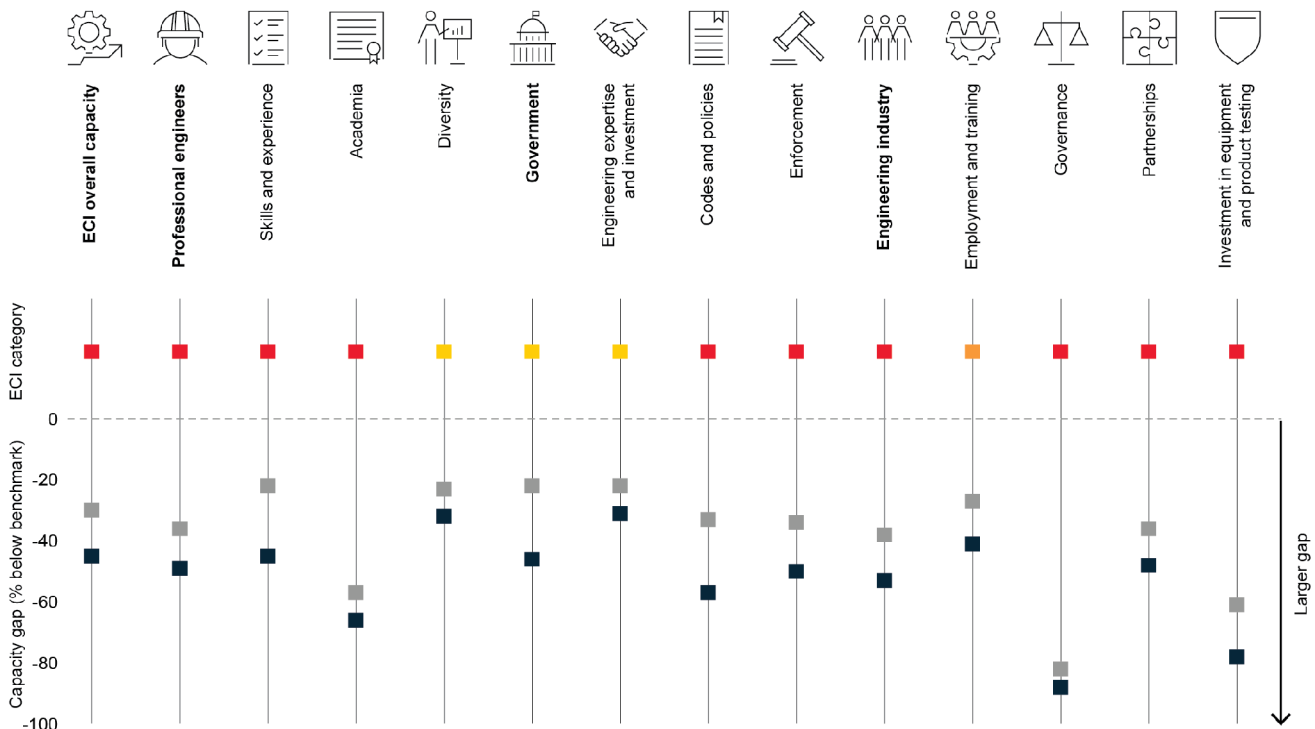
score. The relatively high capacity score for engineering industry employment and training may be helping to close some of the gap in the skills and experience category. Strengthening the academic partnership between industry and academia could help improve the capacity in multiple areas.

Government

According to the ECI 2025 scores, the largest capacity gap for Pakistan's government is in enforcement when compared to the regional benchmark, and in codes and policies when compared to the global benchmark. Pakistan ranks at 101 out of the 115 geographies in both perceptions of regulatory quality and perceptions of government effectiveness, according to World Bank data.

Pakistan capacity gap

Global benchmark Regional benchmark Advanced capacity High capacity Adequate capacity Low capacity Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Engineering industry

According to the ECI 2025, the largest capacity gap for Pakistan's engineering industry is in governance when compared to the regional and global benchmarks. Pakistan ranks in the bottom 10 of the 115 geographies in active standards that promote diversity, equity, and inclusion and ethical governance. These measures are crucial for fostering a culture of safety by considering different perspectives that can reduce the risk of harm, especially to underrepresented populations. Governance capacity area is often linked to the government's ability to provide up-to-date codes and policies. The gap in both capacity areas suggests a lack of attention to safety considerations. By utilising the diversity within the professional engineering workforce to bring more perspectives to its companies and professional associations, along with its relative strength in partnerships, Pakistan could improve its safety practices and build a stronger safety culture.

Capacity gap: Sri Lanka

Overview

Sri Lanka's overall engineering capacity score is in the low range, according to the ECI 2025. Its strongest capacity is in partnerships, where it scores in the adequate range and has the smallest capacity gap compared to the regional benchmark. Sri Lanka is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. Sri Lanka scores relatively well on the number of fatal accidents in engineering-intensive industries, ranking at 9 out of 115, according to International Labour Organisation data. However, it struggles with measures of quality infrastructure, ranking at 113 out of 115 on the Yale Environmental Performance Index measures of water and sanitation infrastructure, and at 80 out of 115 on the World Bank's measure of transportation and logistics infrastructure.

Professional engineers

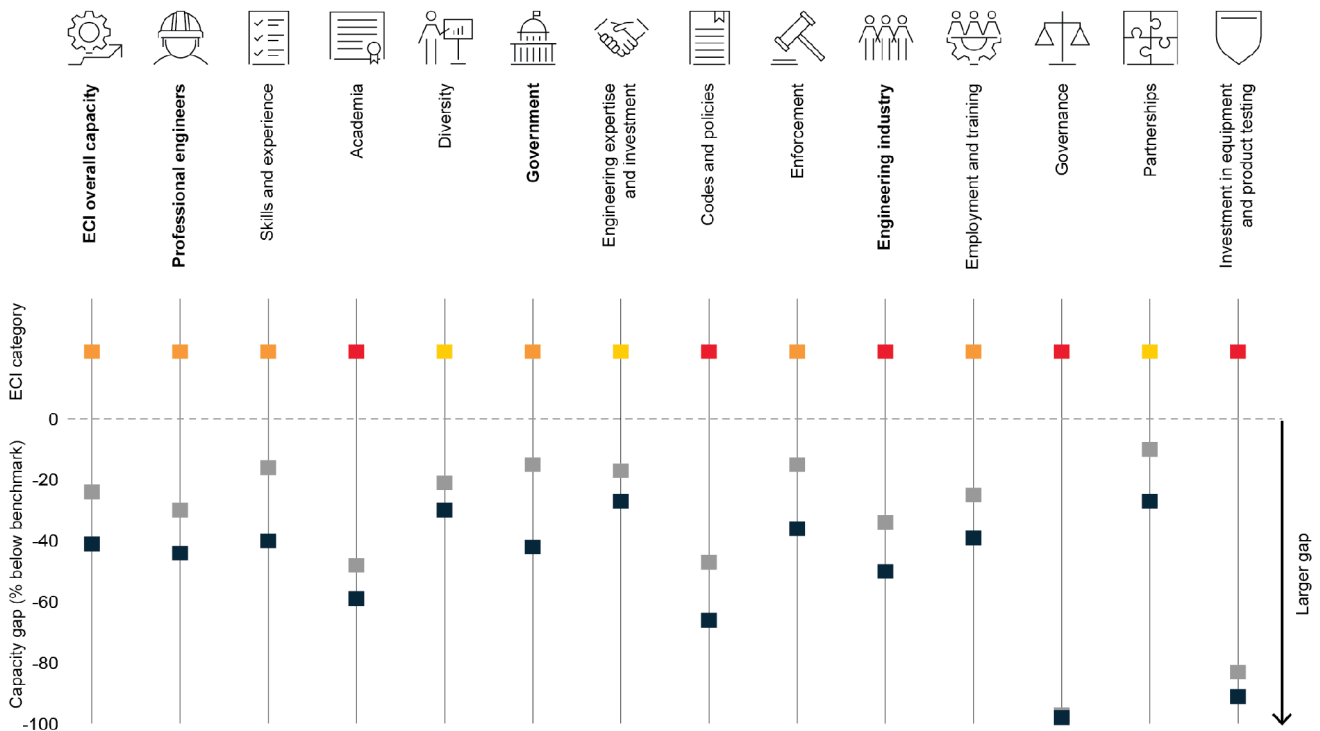
According to the ECI 2025, the largest capacity gap for Sri Lanka's professional engineers is in academia when compared to the regional and global benchmarks. Sri Lanka ranks in the bottom half of the 115 geographies in count and rank of universities on the World University Rankings 2023. Although many of its graduates in engineering do go on to work in the engineering field (ranking at 14 out of 115 geographies on this metric), Sri Lanka ranks at 86 out of 115 geographies for the number of engineering graduates.

Despite diversity being an area of relative strength, Sri Lanka ranks in the bottom half for the ratio of female to male students in university engineering programmes. There is untapped potential for the engineering profession in Sri Lanka's population, as there were significantly more women than men in 2021.⁸

⁸ There were 108.56 women per 100 men in the country in 2023, compared with the 98.8 women per 100 men in the whole world. See Gender Ratio - Our World in Data

Sri Lanka capacity gap

■ Global benchmark ■ Regional benchmark ■ Advanced capacity ■ High capacity ■ Adequate capacity ■ Low capacity ■ Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Government

According to the ECI 2025, the largest capacity gap for Sri Lanka's government is in codes and policies when compared to the regional and global benchmarks. Sri Lanka ranks in the bottom quarter in perceptions of regulatory quality. An area of strength for Sri Lanka is in government expertise and investment. The government's commitment to making the island an important shipping port and transport hub will require engineers both in operating the port as well as in the associated construction and design of the port. Improving its capacity in codes and policies will be critical for ensuring that these are built and operated safely.

Engineering industry

According to the ECI 2025, the largest capacity gap for Sri Lanka's engineering industry is in governance when compared to the regional and global benchmarks. It ranks in the bottom 10 globally for standards that promote ethical governance. On the other hand, Sri Lanka scores highly in partnerships. Sri Lanka could seek to use its relative strength in partnerships to focus on improving governance by bringing in global perspectives on leading practices, especially in the industries that are expected to see growth, such as construction, transportation and logistics, and information technology.

Capacity gap: Vietnam

Overview

Vietnam's overall engineering capacity score is in the low range, according to the ECI 2025. Vietnam is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. According to International Labour Organisation data, it ranks at 91 of the 115 geographies for the average number of fatal and nonfatal injuries in the construction, manufacturing and mining industries. Furthermore, its road quality score of 3.4, according to the World Economic Forum, places it in the bottom half of the 115 geographies in the ECI 2025. It has relative strength in the government's engineering expertise and investment, where it has adequate capacity.

Professional engineers

According to the ECI 2025, the largest capacity gap for Vietnam's professional engineers is in diversity when compared to the regional benchmark, and in skills and experience when compared to the global benchmark. In the ECI 2025, Vietnam ranks at 113 out of 115 geographies in the average number of years

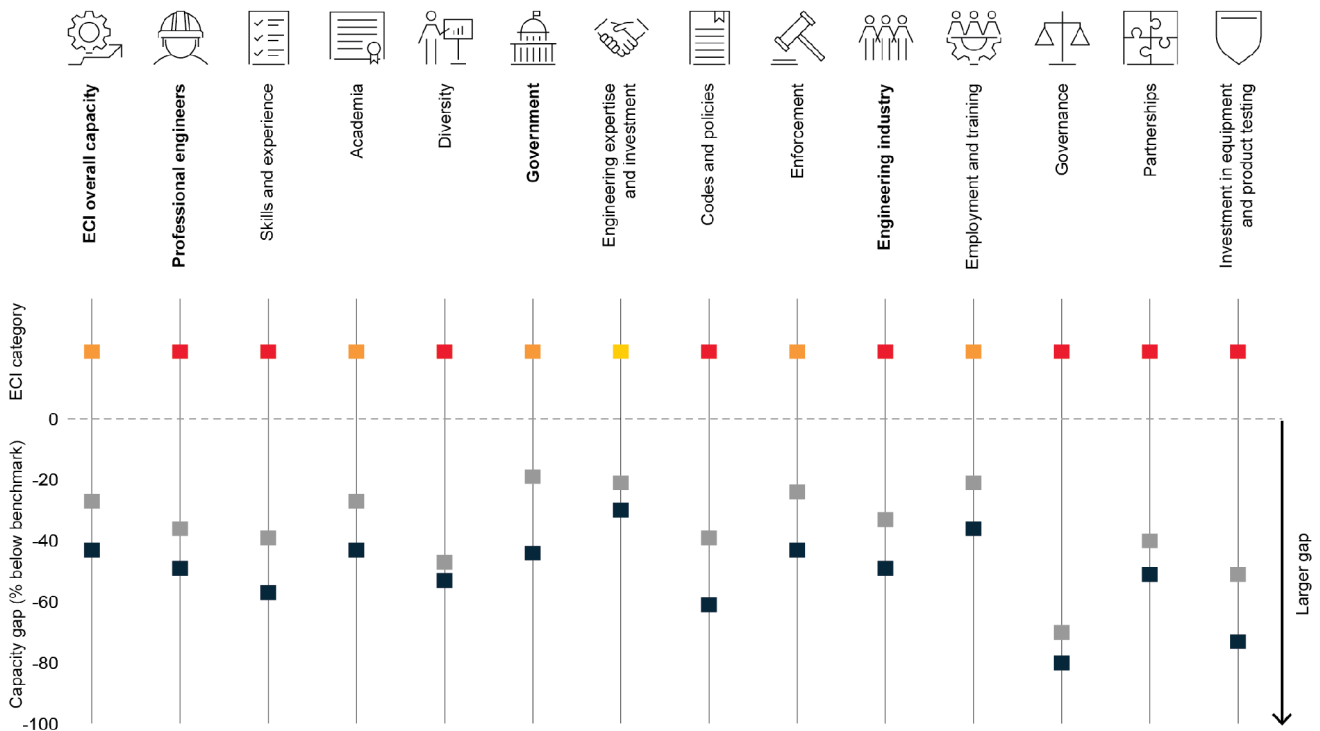
of experience for engineers. The ratio of female to male engineers in the workforce ranks at 93 of the 115 geographies. While its academic capacity is relatively strong compared with the other two capacity areas, it ranks at 110 of the 115 geographies for those graduating with engineering degrees, indicating that the capacity gap in engineering skills and experience may be partly due to not enough students going into engineering fields. Working on bringing more women and other underrepresented groups into engineering could help close both gaps.

Government

According to the ECI 2025, the largest capacity gap for Vietnam's government is in codes and policies when compared to the regional and global benchmarks. Vietnam ranks in the bottom quarter of the 115 geographies in the ECI in perceptions of regulatory quality. Vietnam may already be working to improve its capacity gap in codes and policies; its signing of international trade treaties in recent years entails adherence to international labour and environmental codes and policies to improve its access to global markets. For example, Vietnam pledged to become a net-zero carbon emissions

Vietnam capacity gap

Global benchmark Regional benchmark Advanced capacity High capacity Adequate capacity Low capacity Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

economy by 2050 at the 26th United Nations Climate Change conference in Glasgow.⁹ The commitment highlights the government's strategy to gradually decarbonise the economy and to attract investment in green infrastructure and production. Achieving these commitments in a safe and sustainable way will require working to ensure that codes and policies are in place that meet leading practices for safe and effective engineering.

Engineering industry

According to the ECI 2025, the largest capacity gap for Vietnam's engineering industry is in governance compared to the regional and global benchmarks. This capacity gap, combined with deficiencies in government codes and policies, suggests a lack of attention to safety considerations. Additionally, Vietnam's inadequate capacity in partnerships indicates that it may not be benefiting from global best practices in the design and implementation of engineering products and solutions. Closing these gaps will be critical as Vietnam seeks to attract foreign direct investment.

⁹ COP26 and climate change: Vietnam's commitment to reducing emissions. Vietnam Briefing, Dezan Shira & Associates, 5 November 2021 (retrieved 13 May 2026). vietnam-briefing.com/news/cop26-climate-change-vietnams-commitment

Capacity gap: The Philippines

Overview

The Philippines' overall ECI 2025 score is in the low range for engineering capacity. The Philippines' strongest capacity is in its partnerships. The Philippines is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. According to International Labour Organisation data, it ranks at 101 out of 115 geographies on the average number of fatal and nonfatal injuries in the construction, manufacturing and mining industries. Each of the stakeholder groups in the Philippines has an area of relative strength, where it shows adequate capacity. Professional engineers' strength is in diversity, the government's is in engineering expertise and investment, and the engineering industries' is in partnerships.

Professional engineers

According to the ECI 2025, the largest capacity gap for the Philippines' professional engineers is in academia when compared to the regional and global benchmarks. The Philippines ranks in the bottom half of the 115 geographies for the position of its engineering programmes on the Times World University Rankings. At earlier

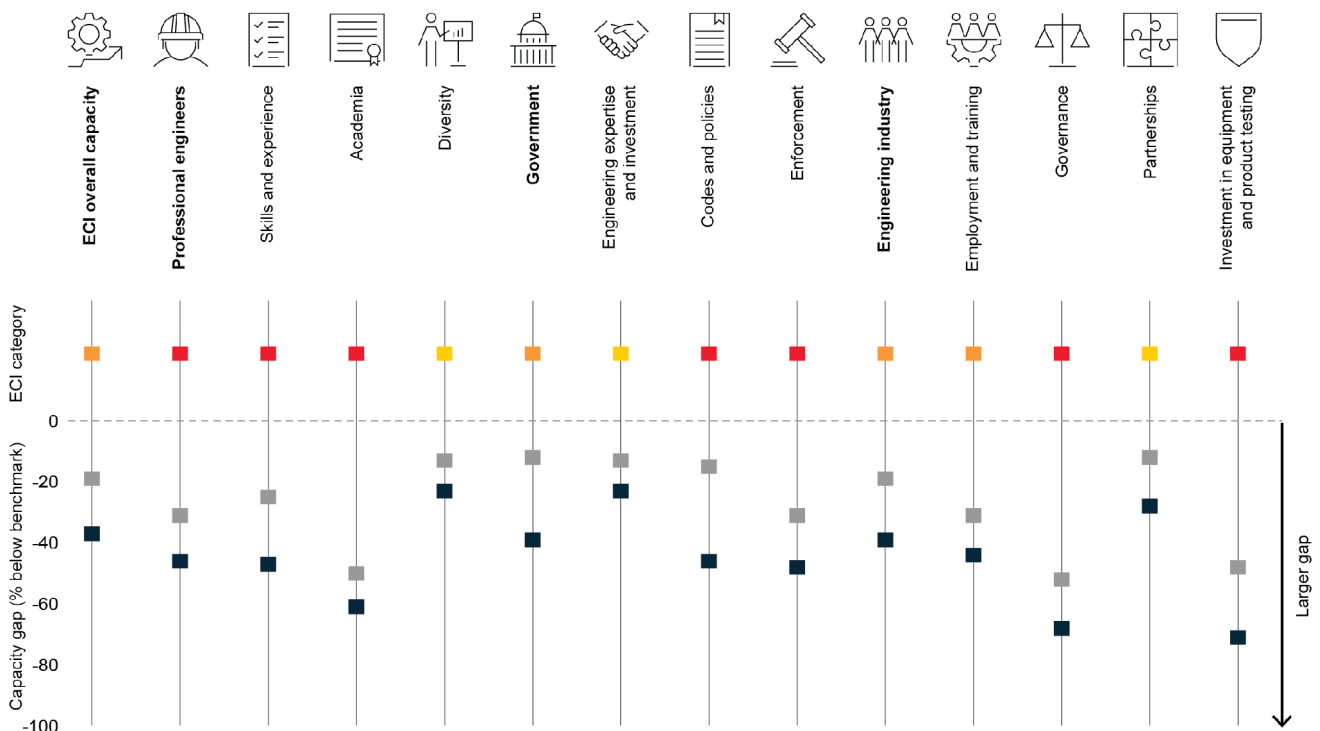
stages of education, students score relatively low compared to those in other geographies in the index on harmonised tests in STEM subjects, ranking at 103 out of 115 geographies. Furthermore, while they have a relatively high percentage of engineering graduates, ranking at 33 out of 115 geographies, the number of graduates that end up working in engineering is much lower than in other, similar geographies, as the Philippines ranks at 76 out of 115. Its relatively high scores of adequate capacity in diversity and engineering industry partnerships could be used to help develop its engineering curricula at the university level, which could also help close gaps in skills and experience.

Government

According to the ECI 2025, the largest capacity gap for the Philippines' government is in enforcement when compared to the regional and global benchmarks. In particular, indicators related to proxy indicators about inspections and revenue from penalties and fines put the Philippines in the bottom third of the 115 geographies. In 2023, the Philippines' scores on the World Justice Project subfactors for "government regulations are effectively enforced" and "government regulations are applied and enforced without undue influence"

Philippines capacity gap

Global benchmark Regional benchmark Advanced capacity High capacity Adequate capacity Low capacity Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

were below both the global and regional averages.¹⁰

Engineering industry

According to the ECI 2025, the largest capacity gap for the Philippines' engineering industry is in governance when compared to the regional benchmark, and in investment in equipment and product testing when compared to the global benchmark. It can use its relative strength in partnerships to help strengthen these capacity areas. Partnerships, especially with international standards bodies, can help identify leading practices for codes and standards. Gaps in governance and government codes and policies can signal a lack of attention to safety. Because of the interdependence between codes and policies, governance and investment in

equipment and product testing, making progress on building capacity in the former would help to improve capacity in equipment and product testing, namely because engineering industry investment in these areas is often driven by standards, whether industry-level standards or government-level standards.

¹⁰ Philippines Insights, WJP Rule of Law Index, World Justice Project, 2023, at <https://worldjusticeproject.org/rule-of-law-index/country/2023/Philippines/Regulatory%20Enforcement/> (retrieved 13 May 2025)

Capacity gap: Algeria

Overview

Algeria's overall engineering capacity score is in the inadequate range, according to the ECI 2025. Algeria is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. According to International Labour Organisation data, it ranks at 86 and 83 out of the 115 geographies for the average number of fatal and nonfatal injuries in engineering-intensive industries, respectively.

Professional engineers

According to the ECI 2025, the largest capacity gap for Algeria's professional engineers is skills and experience when compared to the regional and global benchmarks. Algeria ranks at 100 out of the 115 geographies in the percentage of the labour force working in an engineering role. Additionally, Algeria ranks at 102 out of 115 geographies for its skilled labour shortage. There seems to be a disconnect between skills studied and skills needed; Algeria ranks at 36 out of the 115 geographies for engineering graduates, but at 103 out of 115 for the percentage of engineering graduates that work in an engineering role.

Government

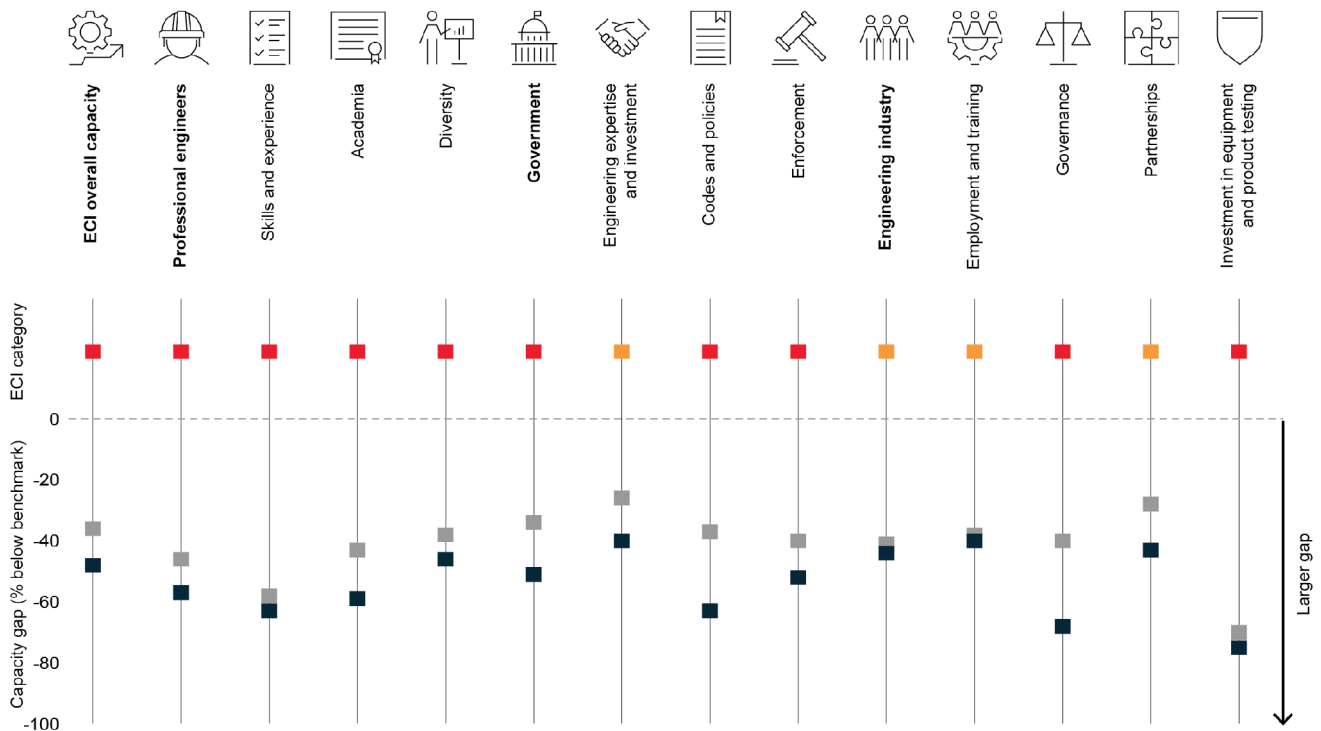
According to the ECI 2025, the largest capacity gap for Algeria's government is in enforcement when compared to the regional benchmark, and in codes and policies when compared to the global benchmark. Both score in the inadequate category. Algeria ranks in the bottom five in perceptions of regulatory quality and government effectiveness within the codes and policies and enforcement capacity areas, respectively.

Engineering industry

According to the ECI 2025, the largest capacity gap for Algeria's engineering industry is in investment in equipment and product testing when compared to the regional and global benchmarks. Within this capacity area, Algeria ranks in the bottom five of the 115 geographies in the value of engineering safety equipment imported and exported. This, along with inadequate capacity in industry governance and within government codes and policies, signals a potential lack of attention to safety or safety culture.

Algeria capacity gap

■ Global benchmark
 ■ Regional benchmark
 ■ Advanced capacity
 ■ High capacity
 ■ Adequate capacity
 ■ Low capacity
 ■ Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Capacity gap: Egypt

Overview

Egypt's overall engineering capacity score is in the low range, according to the ECI 2025. Egypt's strongest capacity is in government enforcement, where its score is adequate. Egypt is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. While Egypt ranks in the top third of the 115 geographies for average number of fatal and nonfatal injuries in the construction, manufacturing and mining industries, according to the International Labour Organisation, it ranks in the bottom third of the 115 geographies for infrastructure quality, particularly for water and sanitation and internet.

Professional engineers

The largest gap for Egypt's professional engineers is in skills and experience when compared to the regional benchmark, and in academia when compared to the global benchmark. Egypt has a relatively high number of high-ranking engineering programmes, but its tertiary graduation rate in engineering ranks at 101 of the 115 geographies. This likely contributes to its low score for the risk of a skilled labour shortage, where it ranks at 96 of the 115 geographies.

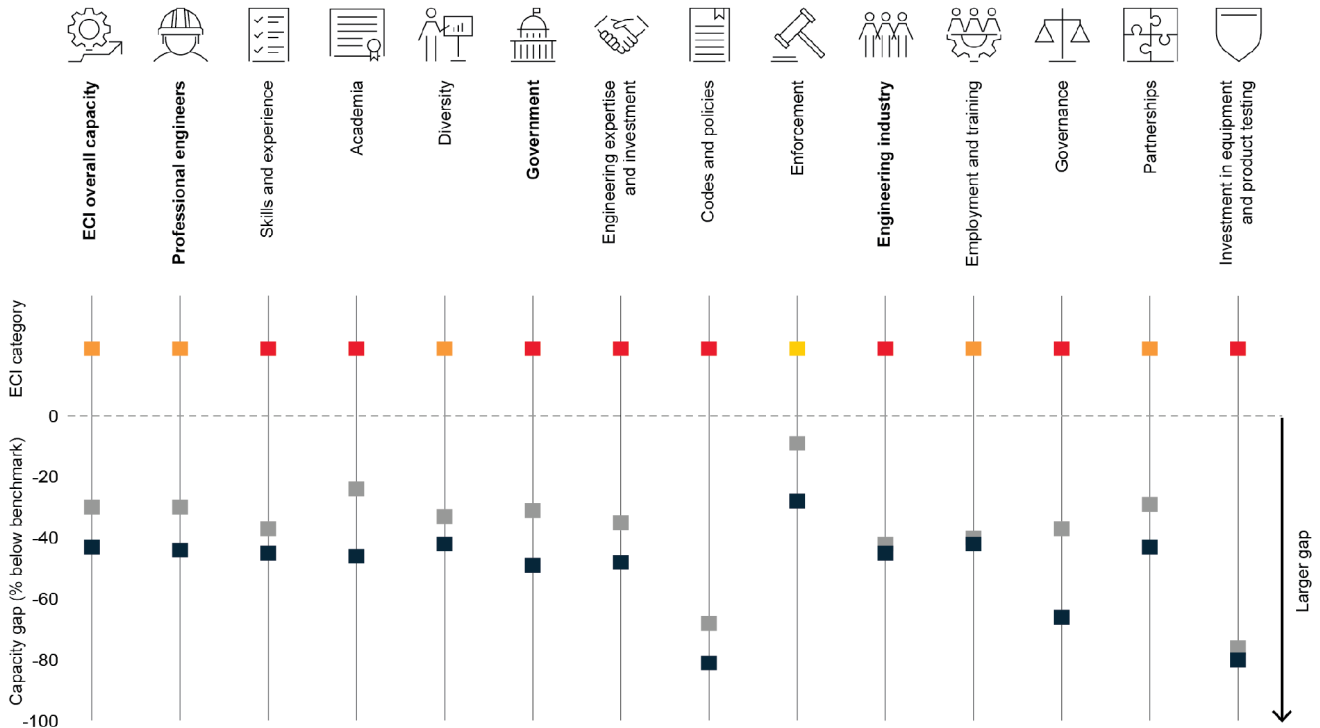
Government

The largest gap for Egypt's government is in codes and policies when compared to the regional and global benchmarks. Regarding regulatory quality, Egypt ranks at 91 of the 115 geographies, according to World Bank data. Road and bridge infrastructure has been a key component of the administration's agenda, with billions of Egyptian pounds of public investments earmarked for upgrading existing infrastructure and expanding new roads as part of the 10-year plan that ran through 2025. This requires extensive engineering skills. While the government has a relative strength in enforcement, especially when it comes to managing permits, where it ranks at 5 out of the 115 geographies, having the right engineering codes in place will be critical to ensure that the infrastructure being produced is up to the highest quality standards.

As the Egyptian government continues to pursue privatisations and collaborations with the private sector in the transport, desalination, energy, and communications sectors, the implementation of codes and policies will be particularly important.

Egypt capacity gap

■ Global benchmark
 ■ Regional benchmark
 ■ Advanced capacity
 ■ High capacity
 ■ Adequate capacity
 ■ Low capacity
 ■ Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Engineering industry

The largest gap for Egypt's engineering industry is in investment in equipment and product testing when compared to the regional and global benchmarks. As shown in the associated Global Engineering Capability Review report, across all geographies, this gap has a high correlation with governance and codes and policies, which is also true for Egypt. Egypt ranks in the bottom 15 of the 115 geographies in the value of engineering safety equipment that is both imported and exported. Not just in Egypt but across the geographies that have large gaps in these three capacity areas, this tends to signal a lack of adequate attention to safety considerations. Egypt can use its relative strength in partnerships and academia to help develop a culture of safety that takes account of Egypt's context and global leading practices. Its strength in government enforcement of codes will likely then be more effective for achieving an overall engineering capacity that produces quality and safe engineering outcomes.

Capacity gap: Iraq

Overview

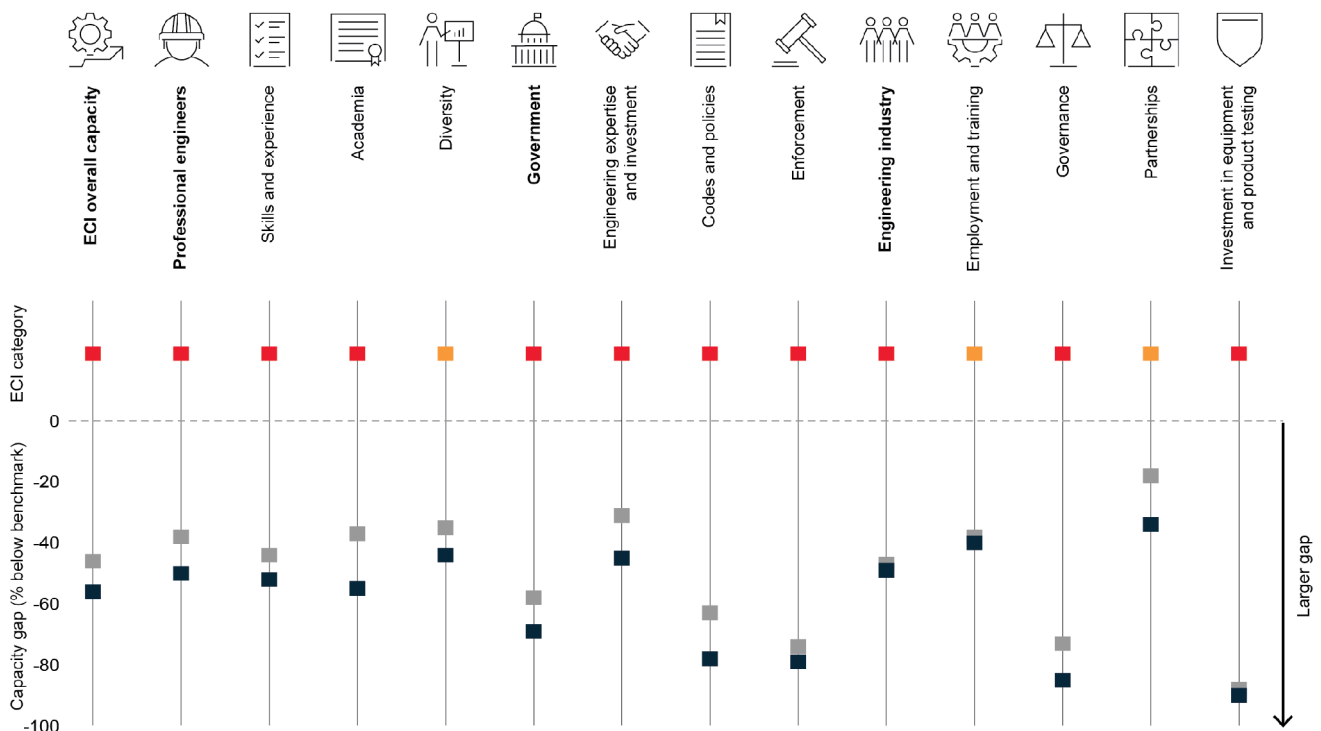
Iraq's overall engineering capacity score is in the inadequate range, according to the ECI 2025. Iraq's strongest capacity area is in partnerships. It is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. According to International Labour Organisation data, it has a relatively high average number of fatal and nonfatal injuries in the construction, manufacturing and mining industries, ranking at 107 and 111 out of the 115 geographies, respectively. According to the World Economic Forum data, Iraq has a road quality score that ranks in the bottom 5 of the 115 geographies.

Professional engineers

According to the ECI 2025, the largest capacity gap for Iraq's professional engineers is in skills and experience when compared to the regional benchmark, and in academia when compared to the global benchmark. Although Iraq's university engineering programmes rank relatively well, according to Times Higher Education data, the supply of engineering students may be holding back its capacity. Iraq ranks at 90 out of 115 geographies for students graduating from tertiary education with STEM degrees, and at 102 for harmonised test scores in STEM subjects, according to World Bank data. This is interconnected with the engineering labour force and may be a factor driving the skilled labour shortage in which Iraq ranks at 114 out of 115 geographies, according to S&P Global Market Intelligence data.

Iraq capacity gap

■ Global benchmark ■ Regional benchmark ■ Advanced capacity ■ High capacity ■ Adequate capacity ■ Low capacity ■ Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Government

According to the ECI 2025, the largest capacity gap for Iraq's government is in enforcement when compared to the regional and global benchmarks. Iraq ranks in the bottom 10 of the 115 geographies in perception of government effectiveness and at 115 of the 115 geographies in corruption risk scores. It is relatively stronger in engineering expertise and investment, so it could leverage this capacity area to start to address gaps in codes and policies and enforcement.

Engineering industry

According to the ECI 2025, the largest capacity gap for Iraq's engineering industry is in investment in equipment and product testing when compared to the regional and global benchmarks. Iraq ranks in the bottom quarter in the value of engineering safety equipment imported and exported. This is followed closely by the large gap in governance. These two capacity areas are often tightly linked. Combined with the inadequate capacity in government codes and policies, this signals a potential lack of attention to safety considerations. Iraq could use its relative strength in partnerships, where it has low capacity, to exchange knowledge and practices with international partners, which may help address some of these gaps.

Capacity gap: Lebanon

Overview

Lebanon's overall engineering capacity score is in the inadequate range, according to the ECI 2025. It has high capacity in the diversity of its workforce, where it is very near the regional benchmark. Lebanon is in the lowerleft quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. It ranks at 110 of the 115 geographies in the average number of fatal injuries in the construction, manufacturing, and mining industries, according to International Labour Organisation data.

Professional engineers

According to the ECI 2025, the largest capacity gap for Lebanon's professional engineers is in skills and experience when compared to the regional benchmark, and in academia when compared to the global benchmark. It ranks in the middle of the 115 geographies for the percentage of engineering graduates. Lebanon could use its strongest capacity, the diversity of its engineering workforce, to help address the other gaps. Diversity is highly correlated with both academia and skills and experience. Highlighting and promoting the diversity of its engineering workforce allows Lebanon's students to see themselves as engineers, which

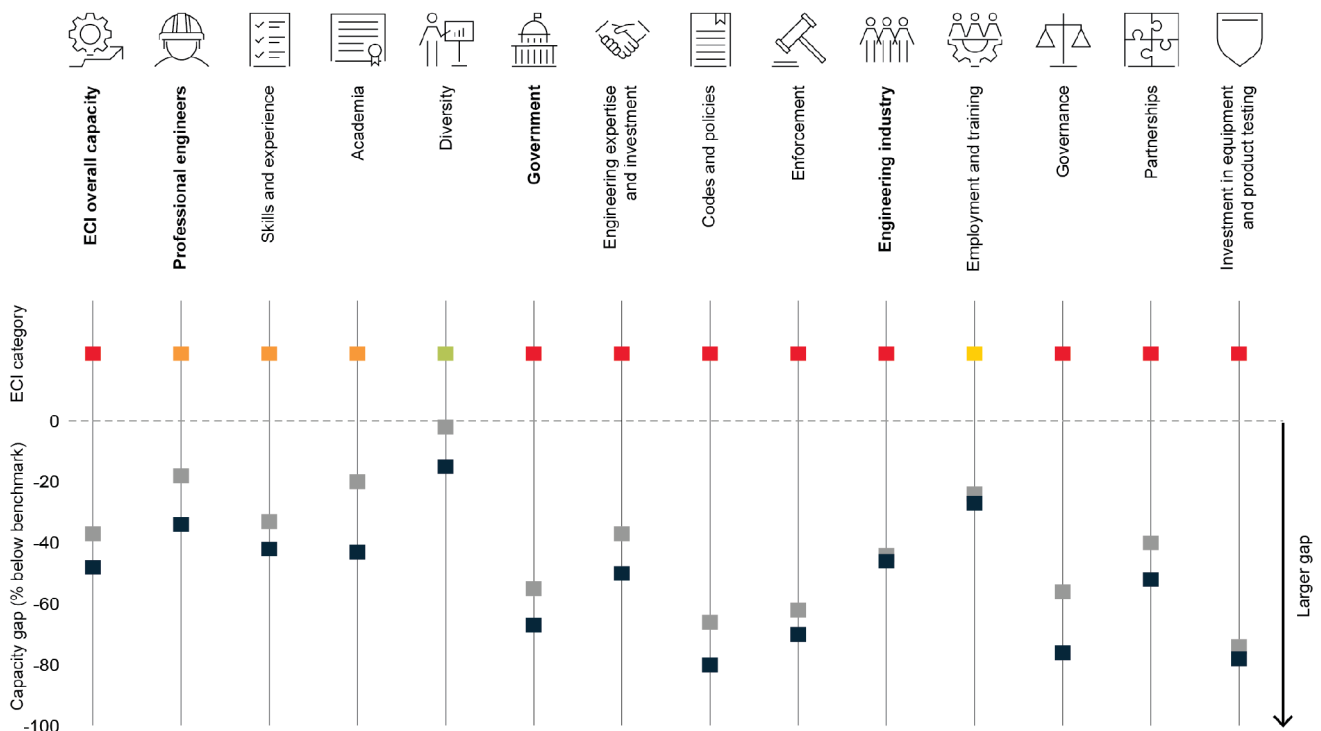
in turn encourages more students to pursue careers in engineering through tertiary education (academia). As more engineering graduates enter engineering fields, the engineering labour force would expand, helping to close the gap in the risk of skilled labour shortages, where Lebanon ranks at 107 of the 115 geographies, according to S&P Global Market Intelligence data.

Government

According to the ECI 2025, the largest capacity gap for Lebanon's government is in codes and policies when compared to the regional and global benchmarks. It ranks in the bottom 15 of the 115 geographies in perceptions of regulatory quality. Lebanon's enforcement capacity also scores in the inadequate range and has a capacity gap that is only slightly smaller than its gap in codes and policies. Lebanon ranks at 114 out of the 115 geographies in corruption risk scores within the government enforcement capacity areas and at 105 out of 115 geographies in the perceptions of government effectiveness. It could make use of its engineering expertise and investment capacity, where it ranks relatively high, to invest more resources into developing codes and enforcement mechanisms.

Lebanon capacity gap

■ Global benchmark ■ Regional benchmark ■ Advanced capacity ■ High capacity ■ Adequate capacity ■ Low capacity ■ Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Engineering industry

According to the ECI 2025, the largest capacity gap for Lebanon's engineering industry is in investment in equipment and product testing when compared to the regional benchmark, and in governance when compared to the global benchmark. Lebanon ranks in the bottom quarter of the 115 geographies for its engineering sector risk score within industry governance. These two capacity areas are often connected and, together with the inadequate score in government codes and policies, can signal a lack of attention to safety considerations. On the other hand, Lebanon has relative strength in its employment and training capacity. The report showed that there can be a trade-off between academic capacity, skills and experience capacity, and training and employment capacity. When the capacities in the professional engineering stakeholder group are low, the engineering industry bolsters its capacity in employment and training. This could also be some of what is driving the relatively high score for this capacity for Lebanon. The engineering industry can help bolster academic capacity by strengthening its partnerships with local engineering universities.

Capacity gap: Morocco

Overview

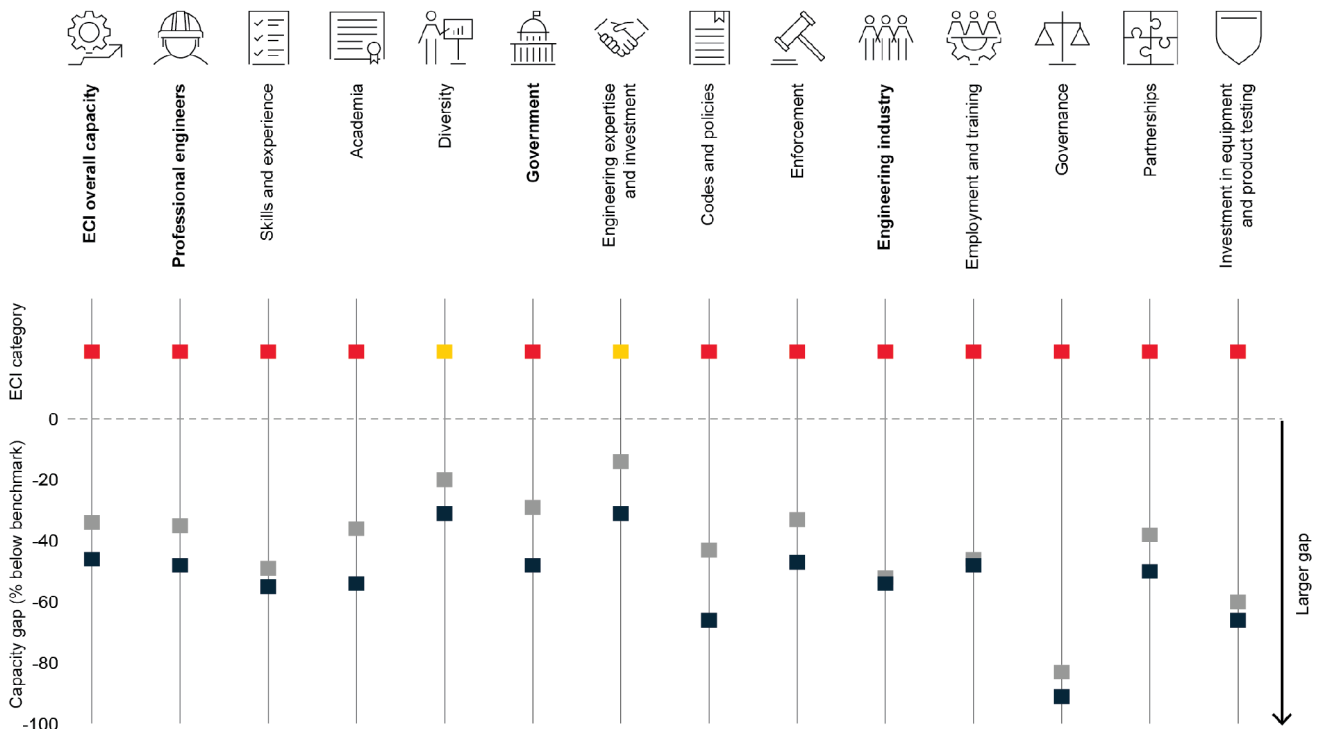
Morocco's overall engineering capacity score is in the inadequate range, according to the ECI 2025. Morocco's strongest capacities are in the diversity of its engineering workforce and its government engineering expertise and investment. Morocco is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. Morocco ranks at 101 out of 115 geographies in the SQI on the World Bank's Logistics and Transportation Infrastructure Index, and at 112 out of 115 geographies on Yale University's Environmental Performance Index.

Professional engineers

According to the ECI 2025, the largest capacity gap for Morocco's professional engineers is in skills and experience when compared to the regional benchmark, and in academia when compared to the global benchmark. These capacity areas can be closely linked, and both score in the inadequate capacity range. Morocco ranks in the bottom 15 of the 115 geographies in the percentage of engineers in the labour force within the skills and experience capacity area. Morocco ranks in the middle of the 115 geographies for the percentage of engineering graduates, but there seems to be a blockage to them entering the workforce – it ranks in the bottom quarter of the 115 geographies for the percentage of engineering employees with an engineering degree.

Morocco capacity gap

■ Global benchmark
 ■ Regional benchmark
 ■ Advanced capacity
 ■ High capacity
 ■ Adequate capacity
 ■ Low capacity
 ■ Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Government

According to the ECI 2025, the largest capacity gap for Morocco's government is in codes and policies when compared to the regional and global benchmarks. Morocco ranks in the bottom half of the 115 geographies in perceptions of regulatory quality, according to World Bank data. It has relative strength in government engineering expertise and investment, where it scores in the adequate capacity range. Morocco could potentially make better use of this capacity area to reduce the gaps in codes and policies and enforcement.

Engineering industry

According to the ECI 2025, the largest capacity gap for Morocco's engineering industry is in governance when compared to the regional and global benchmarks. The partnerships capacity is also in the inadequate range, suggesting that the capacity gap in governance may be helped by forming stronger partnerships with global standards bodies and other international organisations that can help exchange knowledge and share best practices. The capacity gaps in governance and investment in equipment and product testing, combined with the gap in government codes and policies, may also signal a lack of attention to safety considerations.

Capacity gap: South Africa

Overview

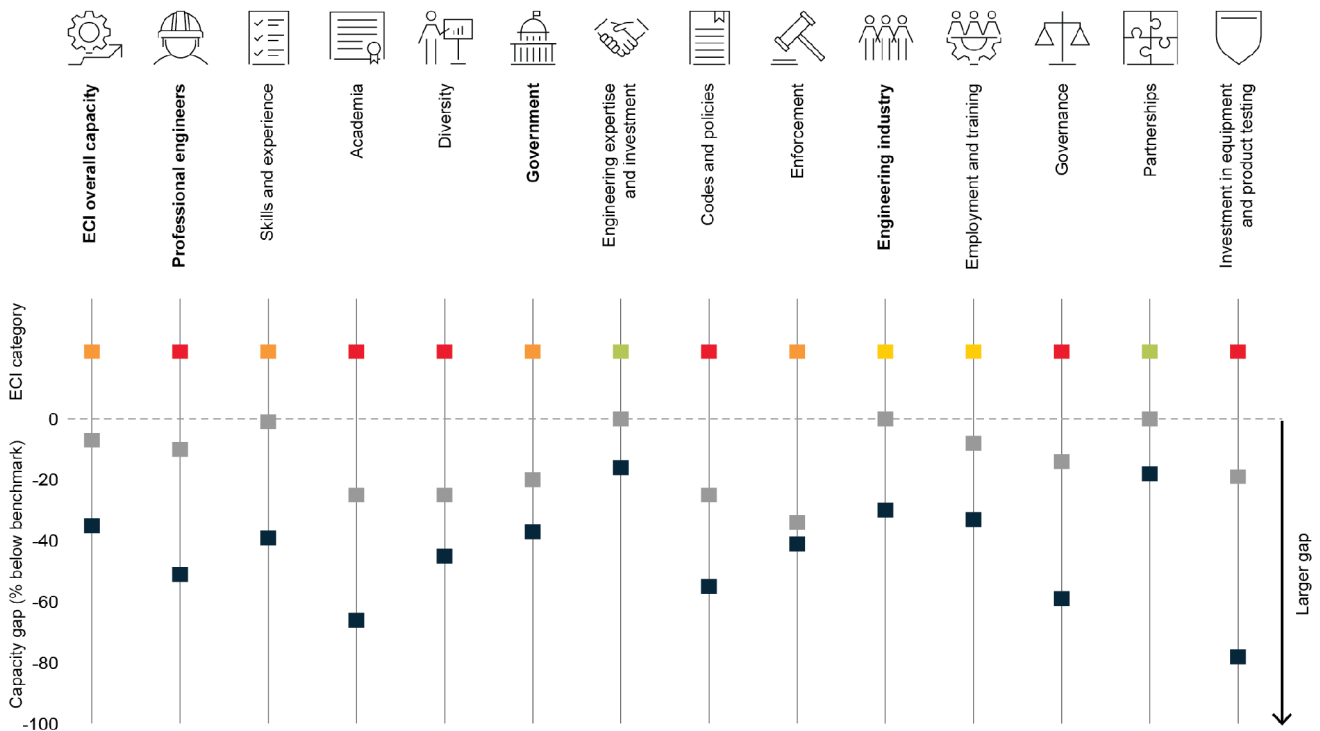
South Africa has an overall engineering capacity score in the low range in the ECI 2025. South Africa scores in the high capacity range for its government engineering expertise and investment and its industry partnerships, and it is the regional benchmark for three out of 10 capacity areas. These strengths can be leveraged to help build capacity in the other areas. South Africa is in the lower-left quadrant of the Engineering Capability Matrix, indicating an elevated risk of harm. Despite its strengths, it scores in the bottom 10 of the 115 geographies for the average number of fatal and nonfatal injuries in the construction, manufacturing, and mining industries, according to International Labour Organisation data.

Professional engineers

According to the ECI 2025, the largest capacity gap for South Africa's professional engineers is in diversity when compared to the regional benchmark, and in academia when compared to the global benchmark. Although it has a relatively low number of accredited engineering programmes, those that are accredited rank relatively well on global university rankings, likely contributing to their relatively low gap in skills and experience capacity. According to The Times Higher Education rankings of engineering programmes, South Africa is in the upper half of the 115 geographies, but when it comes to the number of engineering programmes, South Africa is near the bottom.

South Africa capacity gap

Global benchmark Regional benchmark Advanced capacity High capacity Adequate capacity Low capacity Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Government

According to the ECI 2025, the largest capacity gap for South Africa's government is in enforcement when compared to the regional benchmark, and in codes and policies when compared to the global benchmark. South Africa has the highest score in the region in its government engineering expertise and investment. Although infrastructure bottlenecks have become apparent in recent years, the road, rail, and port facilities are the most developed in the region.

Engineering industry

According to the ECI 2025, the largest capacity gap for South Africa's engineering industry is in investment in equipment and product testing when compared to the regional and global benchmarks. South Africa's strength in partnerships, along with its highly ranked higher education institutions, positions the South African engineering industry to use its partnership capacity to help bolster the pipeline from academia to industry. It can also leverage its strong partnerships to help build industry governance, which will be critical for achieving the safety and quality standards crucial for economic growth.

Capacity gap: Angola

Overview

Angola's overall engineering capacity score is in the inadequate range, according to the ECI 2025. Angola is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. Angola ranks relatively low on the World Bank's Logistics and Transportation Infrastructure Index, at 96 out of the 115 geographies in the ECI 2025, and in Yale University's Environmental Performance Index, where it ranks at 111 out of 115 geographies.

Professional engineers

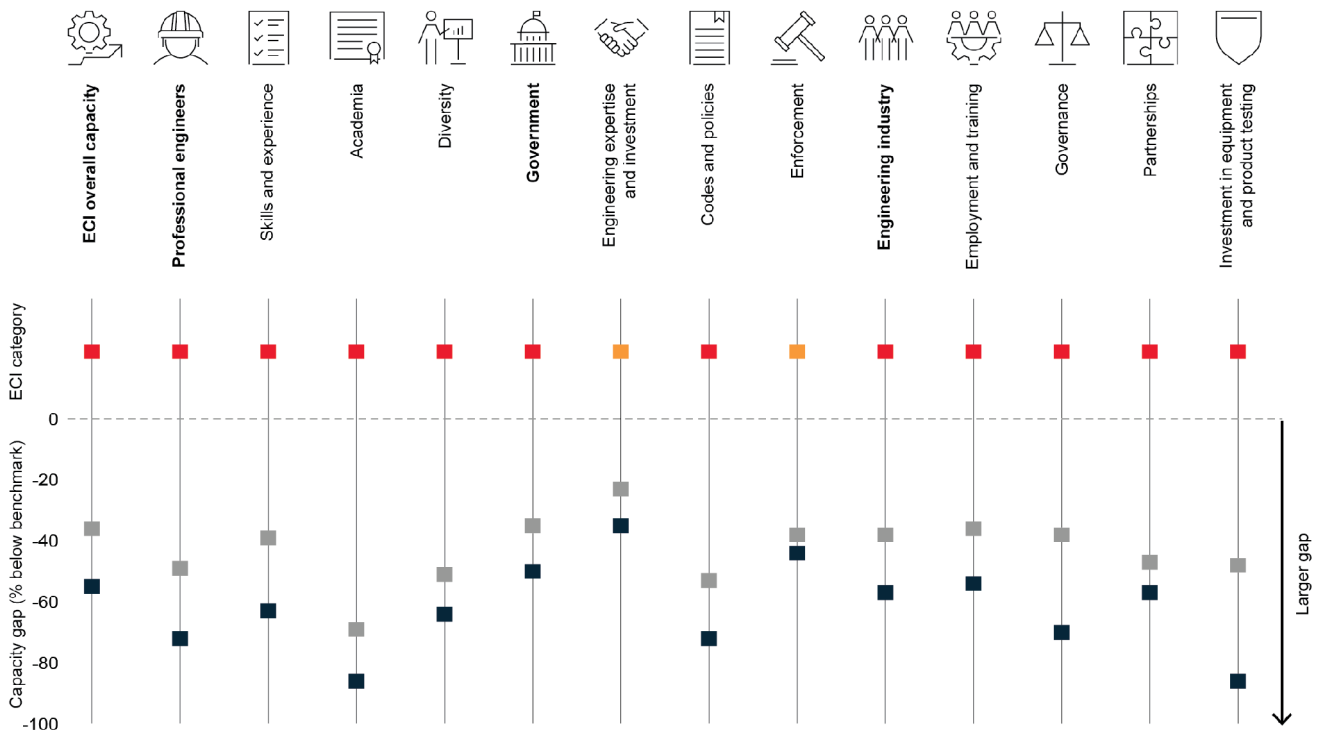
According to the ECI 2025, the largest capacity gap for Angola's professional engineers is in academia when compared to the regional and global benchmarks. Angola ranks in the bottom five for harmonised test scores in science, maths, and reading within the academic capacity area. Academia is often linked to the skills and experience capacity area, which also scores in the inadequate range.

Government

According to the ECI 2025, the largest capacity gap for Angola's government is in codes and policies when compared to the regional and global benchmarks. It has a relative strength in engineering expertise and investment, where it is in the adequate capacity range. According to S&P Global Market Intelligence analysts, the Angolan government established a sovereign wealth fund in 2012 for priority projects and essential infrastructure, focused on rehabilitating and expanding the nation's ports, highways and railways. It could use these investments to help build capacity in codes and policies (the capacity with which it is most interconnected) for quality and safe infrastructure.

Angola capacity gap

Global benchmark Regional benchmark Advanced capacity High capacity Adequate capacity Low capacity Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Engineering industry

According to the ECI 2025, the largest capacity gap for Angola's engineering industry is in investment in equipment and product testing when compared to the regional and global benchmarks. Angola ranks in the bottom 15 of 115 geographies in the value of engineering safety equipment imported and exported. A large capacity gap in investment in equipment and product testing is often combined with a gap in the governance capacity area; this is true for Angola, which has inadequate capacity in governance. Combining this with the gap in government codes and policies signals a potential lack of attention to safety considerations.

Capacity gap: Congo (DRC)

Overview

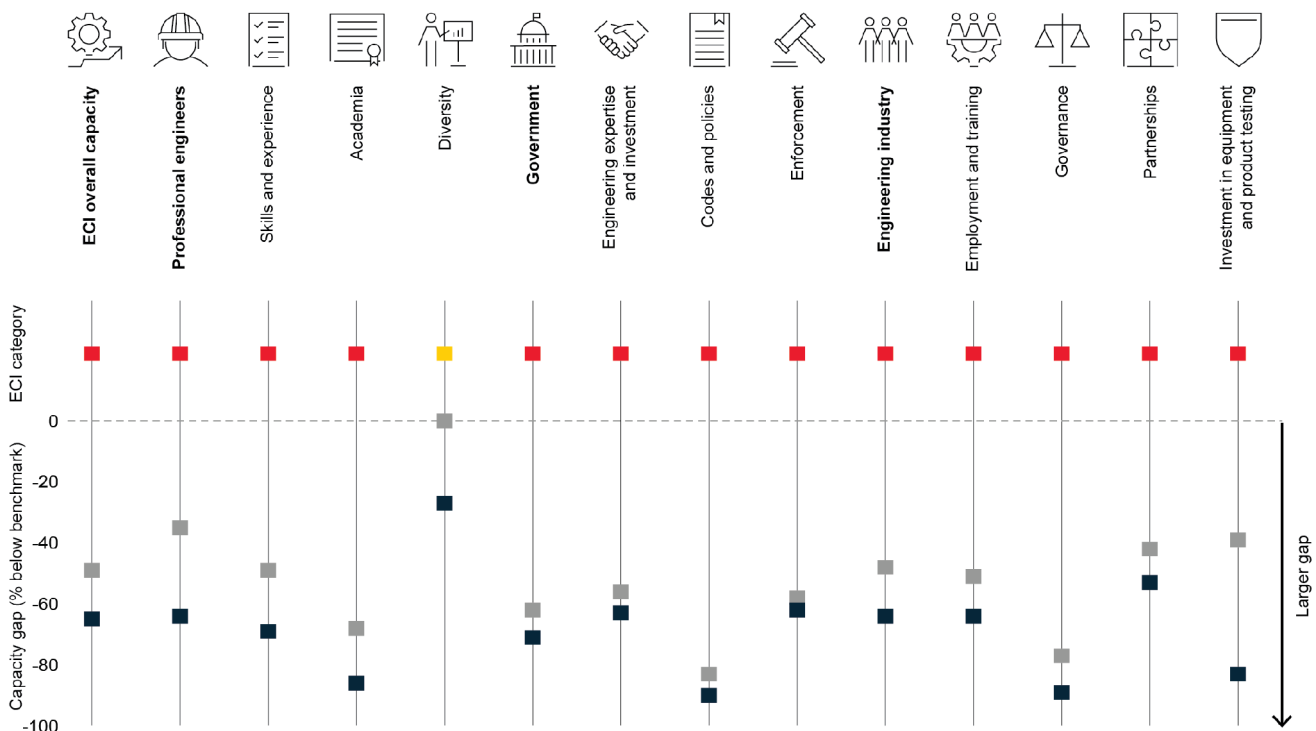
The Democratic Republic of Congo's (DRC's) score is in the inadequate range for its overall engineering capacity in the ECI 2025. Its strongest capacity is in the diversity of its professional engineers, where it is the regional benchmark. The DRC is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. In particular, the DRC has a high average number of fatal and nonfatal injuries in the construction, manufacturing, and mining industries, according to International Labour Organisation data, and high infrastructure risk, measured by S&P Global Market Intelligence.

Professional engineers

According to the ECI 2025, the largest capacity gap for the DRC's professional engineers is in academia when compared to the regional and global benchmarks. The DRC's education system faces significant challenges, and national data indicates that only 67% of children who enter the first grade of primary school will complete the sixth grade. Furthermore, the DRC ranks at 113 out of 115 geographies on harmonised test scores in STEM-related subjects, according to World Bank data, and at 104 out of 115 for engineering graduates. This indicates a shortage of students who could potentially go on to study and graduate in engineering or STEM subjects. Strengthening early years education, particularly in STEM, could help the DRC address the academic capacity area and have knock-on effects on other capacity areas. Academia also relates to the skills and experience capacity area, which scores in the inadequate range. Conversely, the DRC has adequate capacity in diversity within the professional engineering workforce. It could potentially use its engineering workforce to build capacity in academia by finding ways to have engineers be highlighted in schools. When students are able to visualise people who are working in the profession, it can often inspire students to enter the profession.

Congo (DRC) capacity gap

■ Global benchmark ■ Regional benchmark ■ Advanced capacity ■ High capacity ■ Adequate capacity ■ Low capacity ■ Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Government

According to the ECI 2025, the largest capacity gap for the DRC's government is in codes and policies when compared to the regional and global benchmarks. The DRC ranks near the bottom of 115 geographies in perceived regulatory quality, according to World Bank data. Codes and policies was found in the GEQR 2025 to be one of the most interconnected capacity areas. Working to close the gap in codes and policies could therefore help improve capacity in several other areas. For example, the large gap in codes and policies, combined with the large gap in governance in the engineering industry stakeholder group signals a lack of attention to safety issues. Increasing the capacity of the government codes and policies could help to bring greater emphasis to safety.

Engineering industry

According to the ECI 2025, the largest capacity gap for the DRC's engineering industry is in governance when compared to the regional and global benchmarks. The DRC has multiple partnerships with international organisations that it can leverage to help exchange knowledge and learn from best practices for standards that can reduce harm and increase safety. The weakness in the academia and skills and experience capacity areas is likely holding back the score in partnerships. Strengthening partnerships between industry and academia might be one approach to helping close both gaps.

Capacity gap: Kenya

Overview

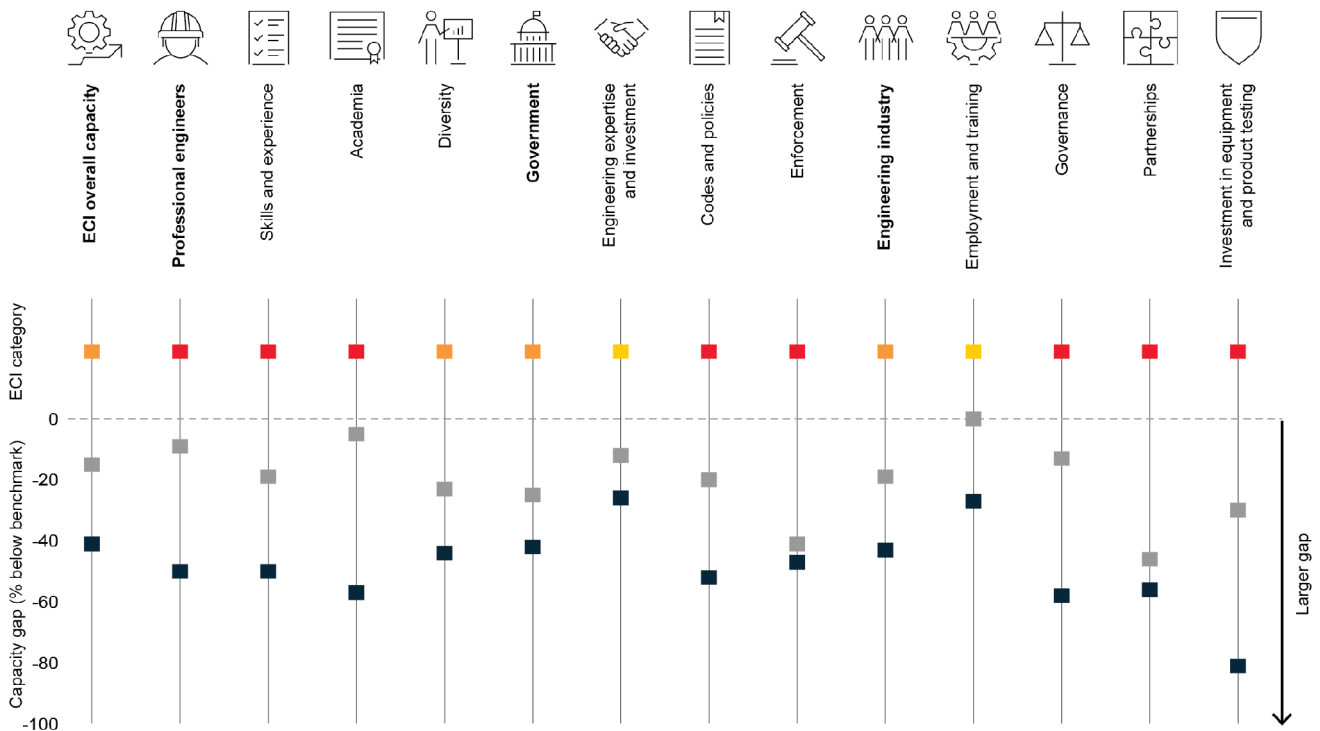
The ECI 2025 shows that Kenya's overall engineering capacity score is in the low range. Its strongest capacity area is engineering expertise and investment within its government bodies, where it has adequate capacity. It also has strength in employment and training in industry, where it is the regional benchmark. Kenya is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. According to International Labour Organisation data, it ranks in the bottom 20 of the 115 geographies for the average number of fatal and nonfatal injuries in the construction, manufacturing and mining industries.

Professional engineers

According to the ECI 2025, the largest capacity gap for Kenya's professional engineers is in diversity when compared to the regional benchmark, and in academia when compared to the global benchmark. Kenya ranks in the bottom quarter of the 115 geographies for the number of ranked engineering programmes. Although it ranks at 11 out of 115 geographies for the percentage of engineering graduates, this does not seem to translate into engineering jobs: It ranks at 85 out of 115 geographies for engineering graduates working in engineering roles. This may contribute to having engineers with relatively low skills and experience, a category that also has a large gap compared to the global benchmark and scores in the inadequate range.

Kenya capacity gap

■ Global benchmark ■ Regional benchmark ■ Advanced capacity ■ High capacity ■ Adequate capacity ■ Low capacity ■ Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Government

According to the ECI 2025, the largest capacity gap for Kenya's government is in enforcement when compared to the regional benchmark, and in codes and policies when compared to the global benchmark. Kenya ranks in the bottom quarter in perceptions of regulatory quality within the codes and policies capacity area. Kenya could use its strength in engineering expertise and investment to help strengthen its codes and policies (the capacity with which it is most interconnected).

Engineering industry

According to the ECI 2025, the largest capacity gap for Kenya's engineering industry is in partnerships when compared to the regional benchmark, and in investment in equipment and product testing when compared to the global benchmark. The combination of

adequate capacity in industry employment and training, with low partnership capacity and low academic capacity, suggests there could be a disconnect between industry and academia. A lack of partnership between the two may be one reason that the professional engineers' academic capacity area is falling short. Kenya's strength in employment and training capacity, where it is the regional benchmark, might be because industries need to provide more specialised training to meet their specific requirements. By enhancing collaborations between academic institutions and industries, and by utilising this strength in employment and training, these capacity gaps could begin to close.

Capacity gap: Madagascar

Overview

Madagascar's overall engineering capacity score is in the inadequate range, according to the ECI 2025. It is relatively strong in diversity within the professional engineering community, which has adequate capacity. Madagascar is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. Madagascar ranks at 114 out of 115 geographies in the ECI 2025 on the Yale University Environmental Performance Index for poor water and sanitation, and it ranks last for road quality.

Professional engineers

According to the ECI 2025, the largest capacity gap for Madagascar's professional engineers is in academia when compared to the regional and global benchmarks. Madagascar ranks in the bottom 15 of the 115 geographies in harmonised test scores in science, maths and reading within the academic capacity area, according to World Bank data. There is a close connection between the academic and skills and experience capacity areas. Madagascar ranks at 95 out of 115 on the percentage of engineering graduates and at 101 out of 115 on the percentage of engineering

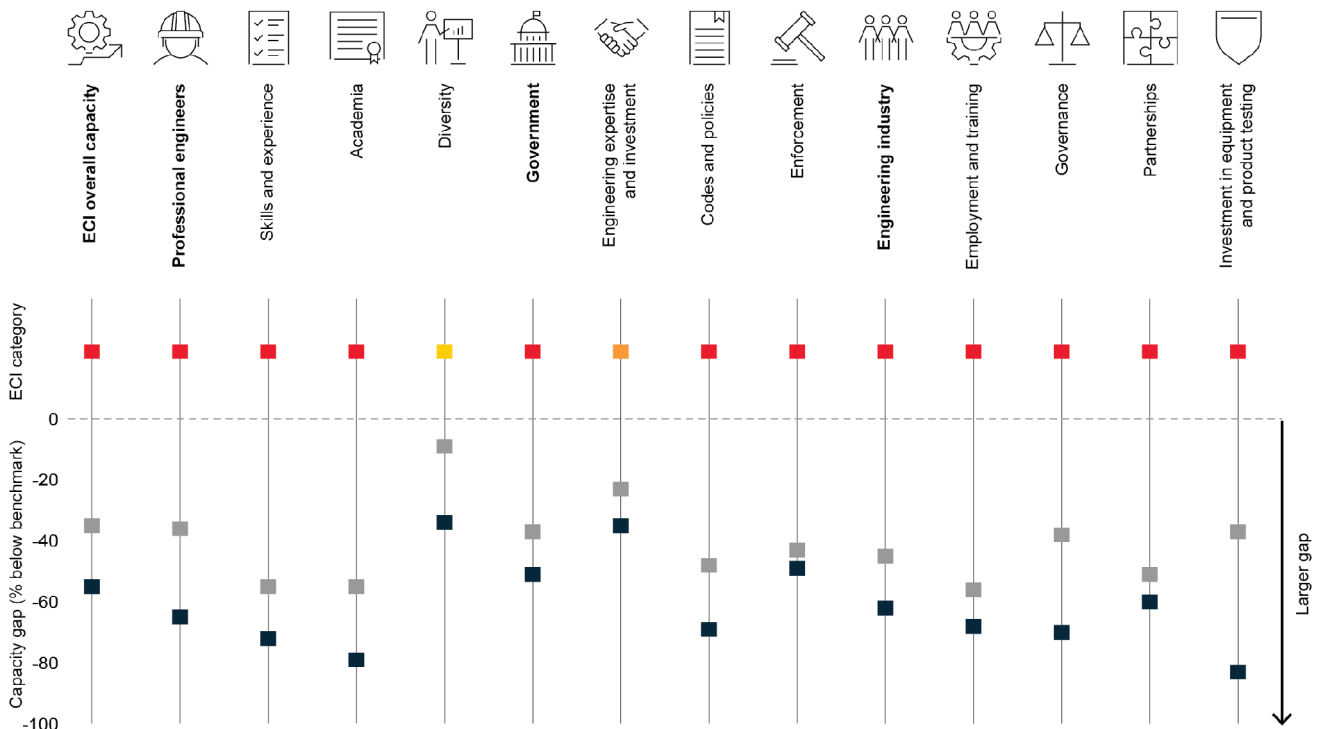
graduates who are working in engineering roles. Combined with the inadequate score in the engineering industry's employment and training, this indicates that there may be limited opportunities for students to acquire relevant STEM and engineering skills as well as for professional engineers to further develop their skills. Madagascar ranked last out of the 115 geographies for the percentage of its labour force working in an engineering role.

Government

According to the ECI 2025, the largest capacity gap for Madagascar's government is in codes and policies when compared to the regional and global benchmarks. According to World Bank data, Madagascar ranks in the bottom 15 of the 115 geographies in perception of regulatory quality, which significantly impacts the nation's score in codes and policies in the ECI. The relative strength in government expertise and investment could potentially be leveraged to work with academia and industry to draw more people into the engineering profession through investments in engineering-intensive infrastructure and sectors, as well as through government-led STEM and engineering skills initiatives. According to S&P Global Market Intelligence country reports, access to foreign donor aid and the extra International

Madagascar capacity gap

Global benchmark Regional benchmark Advanced capacity High capacity Adequate capacity Low capacity Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Monetary Fund (IMF) Special Drawing Rights allocation will allow the continuation of its public-sector investment programme, focusing on electrification and rural road development. Furthermore, IMF and World Bank funding and guidance are helping the development of climate change initiatives, including renewable energy projects and a new mining code.¹¹

Engineering industry

According to the ECI 2025, the largest capacity gap for Madagascar's engineering industry is in employment and training when compared to the regional benchmark, and investment in equipment and product testing when compared to the global benchmark. Madagascar ranks in the bottom 15 of the 115 geographies

for the percentage of employees who are trainees or interns in the engineering industry. The lack of engineering-intensive industries combined with weak capacity in skills and experience and academia creates a cycle that is weakening overall engineering capacity in Madagascar. Reversing this trend will take all three stakeholder groups working together to coordinate training, skills development, and employment opportunities for engineers.

¹¹ International Monetary Fund and World Bank Group Announce the First Country Benefitting from the Enhanced Cooperation Framework for Scaled-Up Climate Action, World Bank Group, 21 June 2024, at <https://www.worldbank.org/en/news/press-release/2024/06/21/international-monetary-fund-and-world-bank-group-announce-the-first-country-benefitting-from-the-enhanced-cooperation-fr> (retrieved 13 May 2025).

Capacity gap: Mozambique

Overview

Mozambique's overall engineering capacity score is in the inadequate range based on the ECI 2025. Its strongest capacity is enforcement within the government stakeholder group. Mozambique is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. According to International Labour Organisation data, it ranks at 112 out of 115 geographies in the ECI 2025 for the average number of fatal and nonfatal injuries in its construction, mining, and manufacturing sectors.

Professional engineers

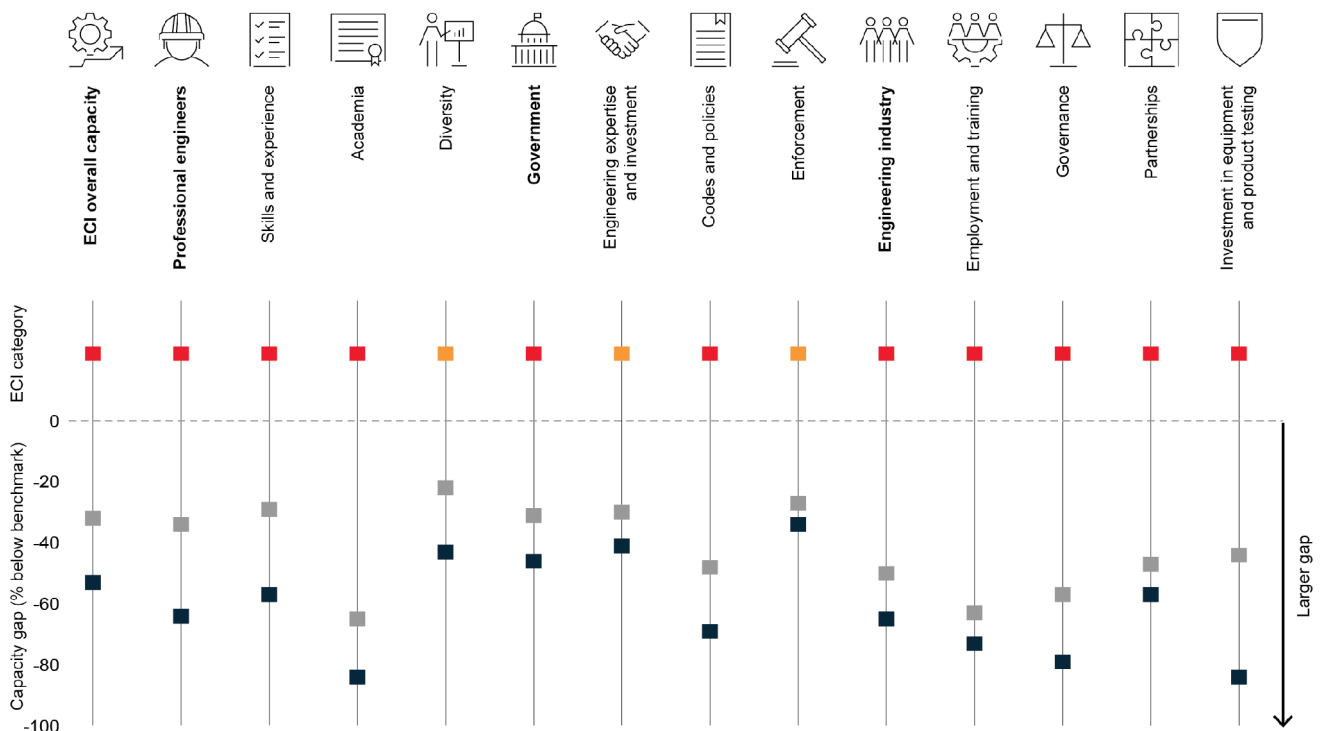
According to the ECI 2025, the largest capacity gap for Mozambique's professional engineers is in academia when compared to the regional and global benchmarks. Mozambique ranks in the bottom 112 of the 115 geographies for the percentage of engineering graduates. Furthermore, it ranks at 108 out of 115 geographies for those with engineering degrees that work in engineering roles. This combined with inadequate capacity in the engineering industry's employment and training suggests that there may be a lack of sufficient engineering sector jobs to attract people, build skills, and partner with academia to build the right skills.

Government

According to the ECI 2025, the largest capacity gap for Mozambique's government is in codes and policies when compared to the regional and global benchmarks. According to S&P Market Intelligence country reports, ambiguity about public-private partnership rules and regulatory frameworks may be hindering capacity. World Bank data ranks Mozambique at 102 out of the 115 geographies for perceptions of regulatory quality. According to S&P Global Market Intelligence reports, Mozambique is

Mozambique capacity gap

■ Global benchmark ■ Regional benchmark ■ Advanced capacity ■ High capacity ■ Adequate capacity ■ Low capacity ■ Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

expected to witness a substantial boost in its economy, enhanced by strong foreign direct investment inflows going primarily toward the mostly undeveloped natural resource sectors of the economy and a fast-paced public-sector infrastructural development programme. Both will require engineering capacity to achieve full economic potential in a safe and sustainable way. The government has made investment in education a focus. While not specifically for engineers, increasing the level of education at primary and secondary levels should help strengthen students' ability to pursue engineering at tertiary level as long as there are enough employment opportunities.

Engineering industry

According to the ECI 2025, the largest capacity gap for Mozambique's engineering industry is in employment and training when compared to the regional benchmark, and in investment in equipment and product testing when compared to the global benchmark. Mozambique ranks in the bottom five for the percentage of employees who are trainees or interns in the engineering industry. This capacity gap, along with the gaps in professional engineering skills and experience and academia, points to a potential lack of employment opportunities. Developing engineering-intensive sectors while also developing the skilled engineers needed to work in these sectors will require coordination and investment between all three stakeholder groups.

Capacity gap: Zimbabwe

Overview

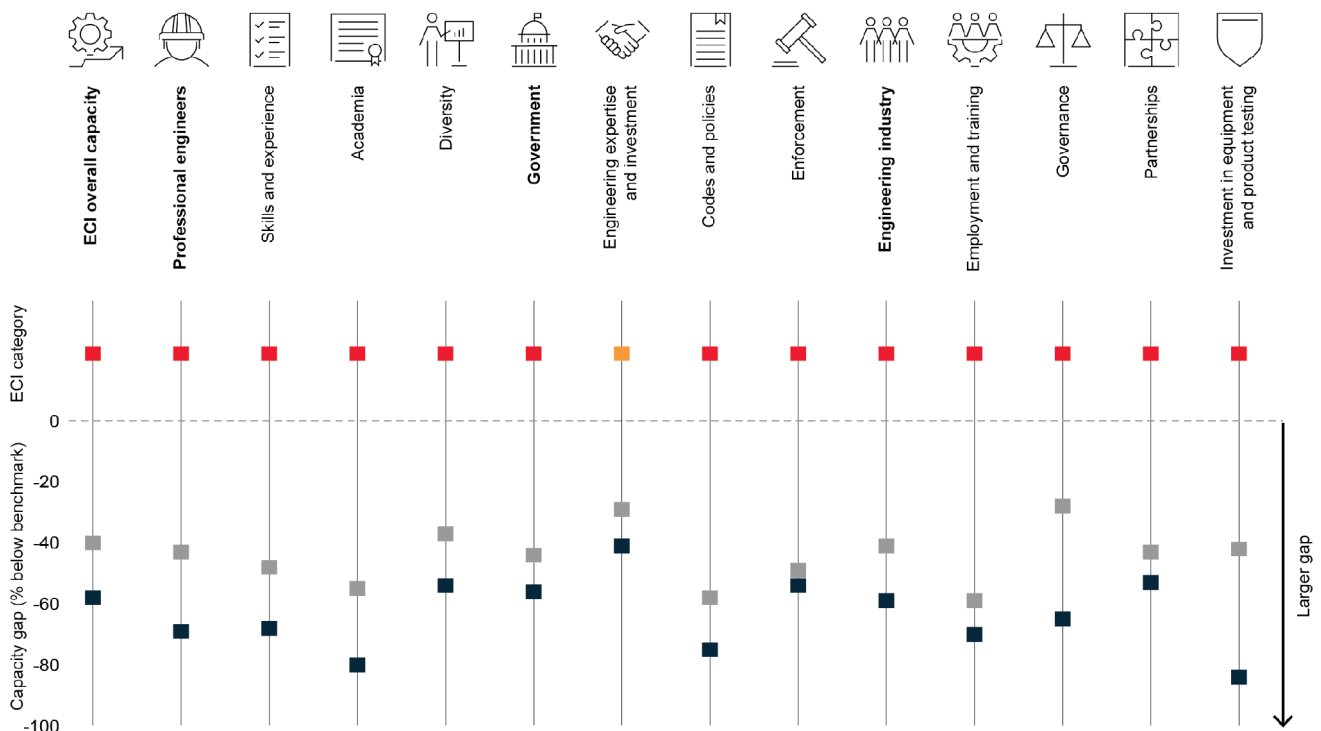
Zimbabwe's overall engineering capacity score is in the inadequate range, according to the ECI 2025. Its strongest capacity is engineering expertise and investment in the government group. Zimbabwe is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. Zimbabwe has a relatively high number of fatal and nonfatal accidents in engineering-intensive industries, ranking it in the bottom 25 of the 115 geographies. It also ranks at 108 out of 115 geographies in the ECI 2025 in road quality, according to the World Economic Forum.

Professional engineers

According to the ECI 2025, the largest capacity gap for Zimbabwe's professional engineers is in academia when compared to the regional and global benchmarks. Zimbabwe ranks at 81 out of 115 geographies in the percentage of engineering graduates. Furthermore, despite the number that do graduate, Zimbabwe ranks in the bottom 5 of the 115 geographies for the percentage of employed engineers with engineering degrees. Combined with the inadequate capacity in engineering industry employment and training, this could indicate that the capacity constraint may be stemming from a lack of adequate employment opportunities for engineers or that there is a potential skills mismatch between academic studies and what is needed in the engineering industry.

Zimbabwe capacity gap

■ Global benchmark ■ Regional benchmark ■ Advanced capacity ■ High capacity ■ Adequate capacity ■ Low capacity ■ Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Government

According to the ECI 2025, the largest capacity gap for Zimbabwe's government is in codes and policies when compared to the regional and global benchmarks. Zimbabwe ranks in the bottom 5 of the 115 geographies in perceptions of regulatory quality, according to World Bank data. Their relative strength in government expertise and investment could be utilised to help close the gap in codes and policies and enforcement (two of the capacities with which it is most interconnected).

Engineering industry

According to the ECI 2025, the largest capacity gap for Zimbabwe's engineering industry is in investment in equipment and product testing when compared to the regional and global benchmarks. This capacity is often linked with a gap in governance, which also scores in the inadequate range. Combined with inadequate capacity in government codes and policies, it can signal a lack of attention to safety considerations.

Capacity gap: Nigeria

Overview

Nigeria's overall engineering capacity score is in the inadequate range, according to the ECI 2025. Its strongest capacity areas are partnerships and engineering expertise and investment, where it has adequate capacity. Nigeria is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. It has a high average number of fatal and nonfatal injuries in the construction, manufacturing and mining industries, according to the International Labour Organisation, ranking at 102 for fatal injuries and 108 for nonfatal injuries out of the 115 geographies in the ECI 2025.

Professional engineers

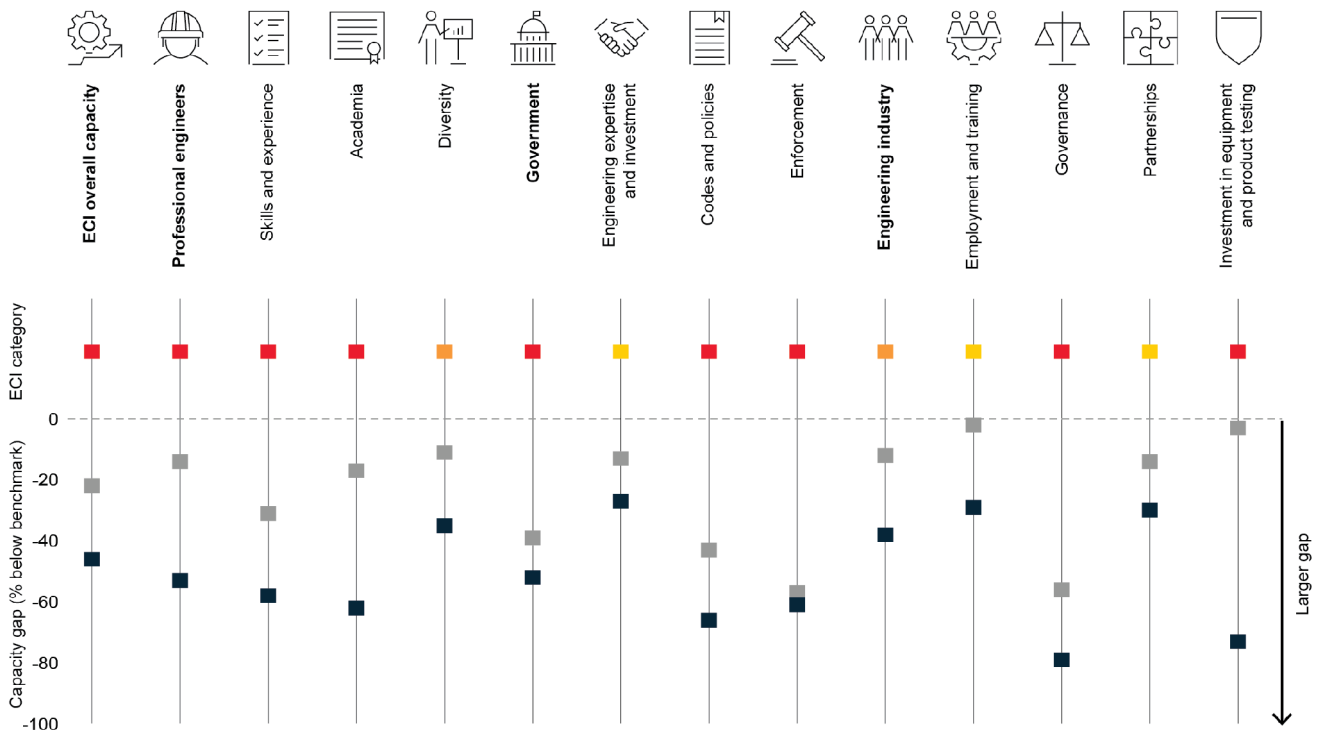
According to the ECI 2025, the largest capacity gap for Nigeria's professional engineers is in skills and experience when compared to the regional benchmark, and in academia when compared to the global benchmark. Nigeria has relatively low scores on harmonised testing in STEM subjects and ranks at 81 out of 115 geographies for the percentage of engineering graduates. It ranks at 99 out of 115 for the risk of a skilled labour shortage, according to S&P Global Market Intelligence data.

Government

According to the ECI 2025, the largest capacity gap for Nigeria's government is in enforcement when compared to the regional benchmark, and in codes and policies when compared to the global benchmark. Nigeria ranks in the bottom 10 of 115 geographies in perceptions of government effectiveness, according to World Bank data, and in corruption risk scores, according to S&P Global Market Intelligence data. Its relative strength in engineering credentials and commitment could be used to develop more effective codes and policies and enforcement measures, and to work with industry and academia to further close these capacity gaps.

Nigeria capacity gap

Global benchmark Regional benchmark Advanced capacity High capacity Adequate capacity Low capacity Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Engineering industry

According to the ECI 2025, the largest capacity gap for Nigeria's engineering industry is in governance when compared to the regional and global benchmarks. Nigeria ranks in the bottom half of the 115 geographies in active standards that promote DEI and ethical governance. On the other hand, it has relative strength in employment and training and partnerships. The fact that the engineering industry scores are in the adequate range for employment and training along with partnerships, while academia and skills and experience in the professional engineers group scores in the inadequate capacity range, indicates there is a potential disconnect between industry and academia, and industry may have to carry out a lot of training to meet its skills needs. Furthermore, the gap in governance suggests that partnerships between industry and international associations are not being leveraged as effectively as they could be to share knowledge and learn from good practices.

Capacity gap: Albania

Overview

Albania's overall engineering capacity is in the low range in the ECI 2025. Its strongest capacity is engineering expertise and investment in its government bodies. Albania is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. According to International Labour Organisation data, it ranks at 104 out of 115 geographies for the average number of days lost to injuries in the construction, manufacturing and mining industries. Additionally, it ranks at 85 out of the 115 geographies for infrastructure quality, based on the Global Quality Infrastructure Index.

Engineering professionals

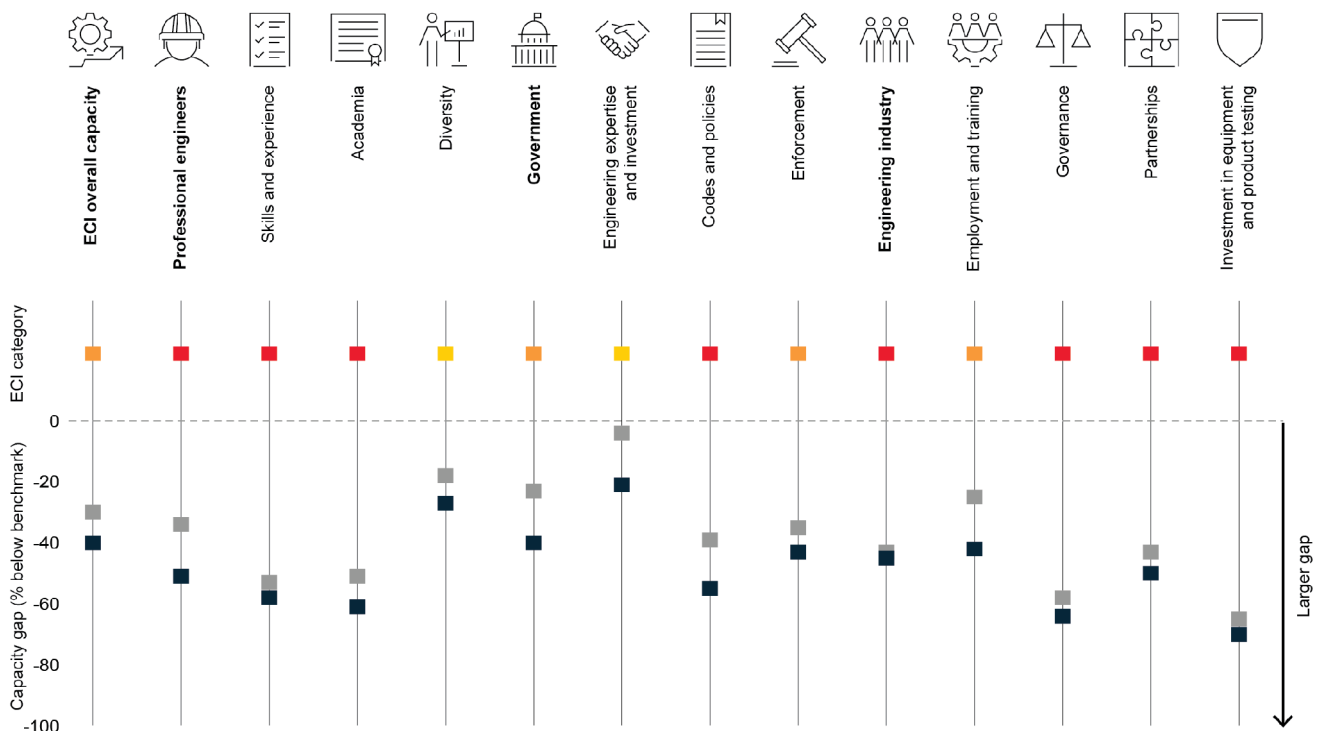
According to the ECI 2025, the largest capacity gap for Albania's professional engineers is in academia when compared to the regional and global benchmarks. Albania ranks at 86 out of 115 geographies for the number of ranked engineering programmes in global rankings. Although it ranks in the bottom half of the 115 geographies for the percentage of engineering graduates, those that do graduate are going into engineering jobs: It ranks in the top half of the 115 geographies for employees with engineering degrees that work in engineering roles. It also has a relatively low capacity gap in industry employment and training.

Government

According to the ECI 2025, the largest capacity gap for Albania's government is in codes and policies when compared to the regional and global benchmarks. The adequate capacity in engineering expertise and investment could be better leveraged to focus on the codes and policies for engineering-related products and sectors.

Albania capacity gap

■ Global benchmark ■ Regional benchmark ■ Advanced capacity ■ High capacity ■ Adequate capacity ■ Low capacity ■ Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Engineering industry

According to the ECI 2025, the largest capacity gap for Albania's engineering industry is in investment in equipment and product testing when compared to the regional and global benchmarks. Albania ranks in the bottom quarter for the value of engineering safety equipment imported and exported. This gap is often linked with a capacity gap in governance, and for Albania it is no different. The gap in governance, along with the government gap in codes and policies, signals a potential lack of attention to safety considerations. Furthermore, the partnerships gap could be holding back progress in both the governance and academic capacity areas. The inadequate score in partnerships indicates that developing international partnerships to learn from global good practices and academic partnerships to coordinate curriculum with industry needs are two areas that could be developed and could lead to large improvements in the other capacities as well.

Capacity gap: Belarus

Overview

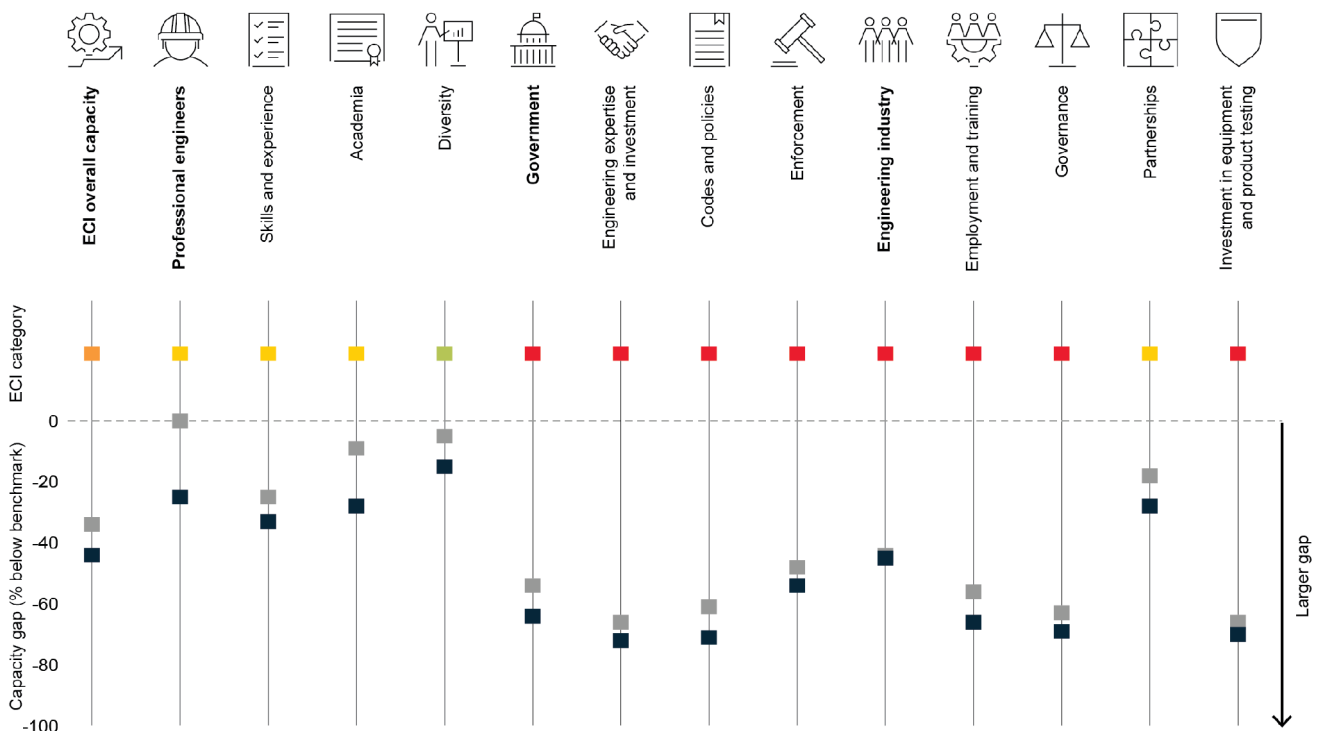
Belarus' overall engineering capacity score is in the low range in the ECI 2025. Its strongest capacity area is diversity within its engineering workforce, which is in the high capacity range. Belarus is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. Belarus is close to the borderline between low and adequate capacity. According to S&P Global Market Intelligence country reports, it has focused investments on improving infrastructure, especially in transportation and logistics.

Engineering professionals

According to the ECI 2025, the largest capacity gap for Belarus' engineering professionals is in skills and experience when compared to the regional and global benchmarks. Belarus ranks at 91 of the 115 geographies in the risk of a skilled labour shortage and in the bottom 15 in average years of experience for engineers, according to the ECI 2025. Its engineering professionals group as a whole scores in the adequate range. Its strongest capacity for these stakeholder groups is diversity, where it scores in the high capacity range.

Belarus capacity gap

■ Global benchmark ■ Regional benchmark ■ Advanced capacity ■ High capacity ■ Adequate capacity ■ Low capacity ■ Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Government

According to the ECI 2025, the largest capacity gap for Belarus' government is in engineering expertise and investment when compared to the regional and global benchmarks. This is reflected in the lack of civil servants with an engineering background; Belarus ranks at 114 of 115 geographies in the ECI 2025 for engineering graduates working in government administration. It also ranks at 109 out of 115 geographies on government spending on engineering-intensive ministries such as transportation and communication. It could make use of partnerships with engineers in academia to try to bring more engineering insight into government, which could contribute to further improvements in developing codes and policies as well as their enforcement.

Engineering industry

According to the ECI 2025, the largest capacity gap for Belarus' engineering industry is in investment in equipment and safety testing, followed closely by governance. These two capacities are often linked and, combined with the inadequate capacity in government codes and policies, signal a potential lack of attention to safety considerations. Its adequate capacity in partnerships could be better leveraged to bring in global good practices around safety standards and reducing harm. Also, its adequate capacity in academia alongside its partnership capacity could be used to strengthen its industry employment and training capacity.

Capacity gap: Montenegro

Overview

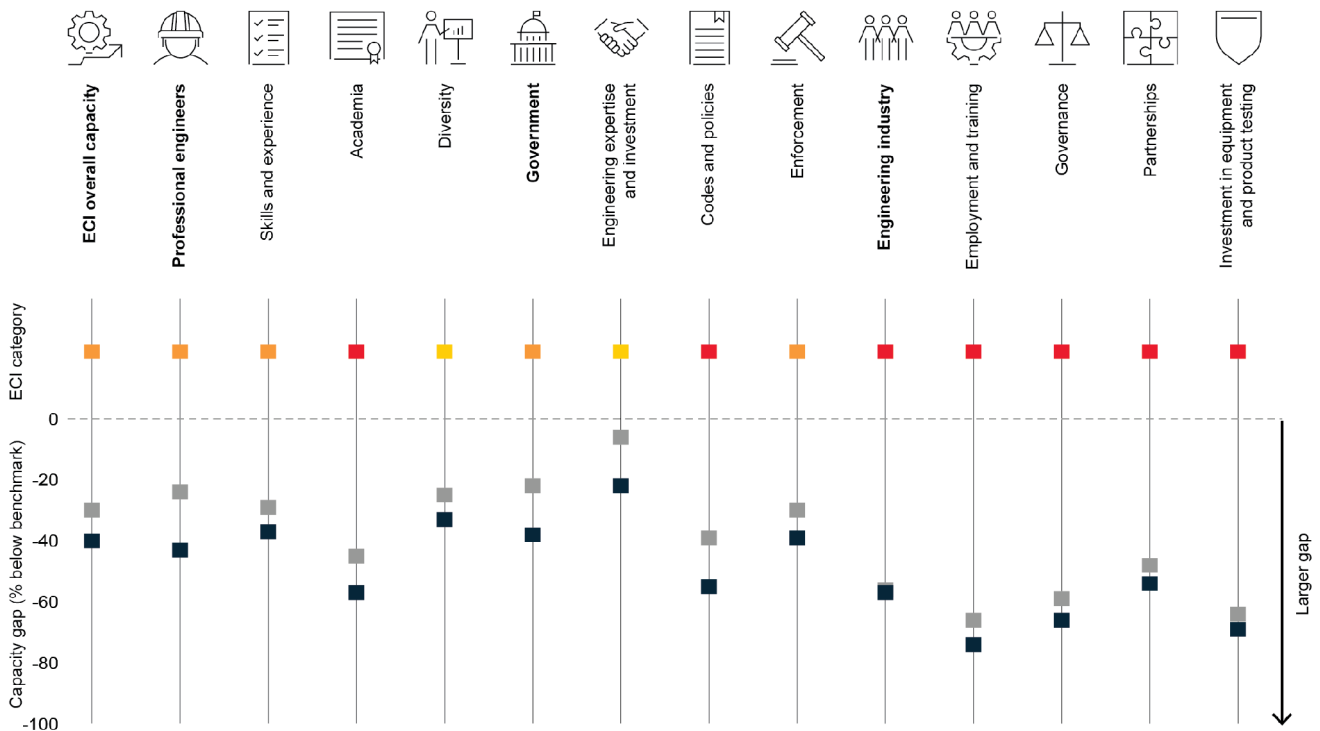
The ECI 2025 shows Montenegro's overall engineering capacity score is in the low range. Its strongest capacity is the expertise and investment of its government bodies. Montenegro is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. Montenegro ranks at 115 out of 115 geographies in the average number of injury days and 103 out of 115 geographies in the average number of fatalities in the construction, manufacturing and mining industries.

Professional engineers

According to the ECI 2025, the largest capacity gap for Montenegro's professional engineers is in academia when compared to the regional and global benchmarks. The country ranks in the bottom half of the 115 geographies for internationally ranked university engineering programmes. It also ranks in the bottom half for harmonised test scores in STEM-related subjects. The relatively smaller gap in skills and experience, combined with the relatively high capacity of the government expertise and investment area and the inadequate capacity in engineering industry employment and training, signals that the engineering industry may lack the capacity to create attractive jobs, but there may be employment opportunities for engineers in the public sector.

Montenegro capacity gap

■ Global benchmark ■ Regional benchmark ■ Advanced capacity ■ High capacity ■ Adequate capacity ■ Low capacity ■ Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Government

According to the ECI 2025, the largest capacity gap for Montenegro's government is in codes and policies when compared to the regional and global benchmarks. Montenegro ranks in the bottom quarter of the 115 geographies in regulations and requirements for mining, particularly around key safety and environmental issues. Its relative strength in engineering expertise and investment could potentially be leveraged to work on codes and policies. This would help guide plans and building as the country continues to invest in key sectors such as tourism and energy that will require the safe construction of new infrastructure.

Engineering industry

According to the ECI 2025, the largest capacity gap in Montenegro's engineering industry is in employment and training when compared to the regional benchmark, and in investment in equipment and product testing when compared to the global benchmark. Montenegro ranks at 104 out of 115 geographies in the percentage of engineering employees relative to total employment. Of the three stakeholder groups, the engineering industry has the lowest capacity overall. While its partnership capacity is not the largest gap, the relative strength of its diversity capacity and engineering expertise and investment might make focusing on partnerships a bit more, to strengthen industry training and employment through working with academia on training and a career pathway, an effective way to close multiple gaps for the engineering industry.

Capacity gap: Bolivia

Overview

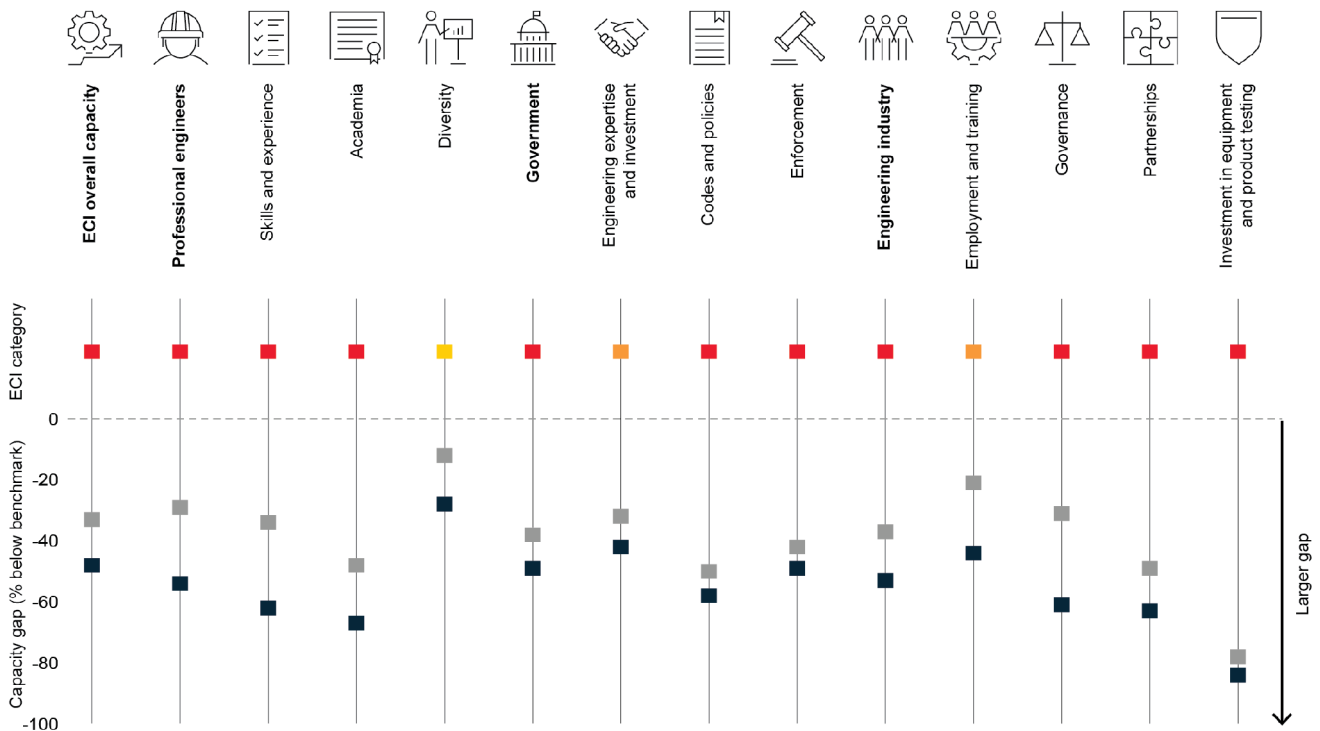
The ECI 2025 shows that Bolivia has an overall engineering capacity score that is in the inadequate range. Its strongest capacity area is the diversity of its engineering workforce, where it has adequate capacity. Bolivia is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. Bolivia has relatively weak infrastructure scores, ranking at 94 out of 115 geographies on both infrastructure quality, according to the Global Quality Infrastructure Index, and infrastructure disruption risk, according to S&P Global Market Intelligence data. Furthermore, Bolivia ranks at 87 out of 115 geographies on drinking water and sanitation infrastructure.

Professional engineers

According to the ECI 2025, the largest capacity gap for Bolivia's professional engineers is in academia when compared to the global and regional benchmarks. The engineering programmes in Bolivia rank at 86 out of the 115 countries on the Times Higher Education rankings. Although the number of tertiary engineering graduates ranks at 31 out of 115, the number with a degree in engineering working in engineering fields ranks at 79 out of 115. Academia is also closely connected to skills and experience, which is one of the largest gaps for Bolivia when compared to the global benchmark. The relatively high capacity in the engineering industry's employment and training capacity (low versus inadequate), combined with inadequate capacity in partnerships, signals that one of the main capacity constraints for professional engineers may be the result of a lack of adequate partnerships between academia and industry. These partnerships can help keep academic curricula in step with the skills industry needs and provide hands-on learning through internship and secondment opportunities for students and staff.

Bolivia capacity gap

Global benchmark Regional benchmark Advanced capacity High capacity Adequate capacity Low capacity Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Government

According to the ECI 2025, the largest capacity gap for Bolivia's government is in codes and policies when compared to the regional and global benchmarks. Bolivia ranks in the bottom five in perceptions of regulatory quality, according to World Bank data. Codes and policies is one of the most interdependent capacities, according to the GECR 2025. This capacity is highly correlated with government enforcement, where Bolivia scores in the adequate range. It also scores in the adequate range for government expertise and investment.

Engineering industry

According to the ECI 2025, the largest capacity gap for Bolivia's engineering industry is in investment in equipment and product testing when compared to the regional and global benchmarks. Bolivia ranks in the bottom quarter of the 115 geographies in the value of engineering safety equipment imported and exported. This capacity gap is often associated with a gap in the governance capacity area, and in Bolivia this is also the case. Along with the inadequate capacity in government codes and policies, this combination may suggest a lack of a well-developed safety culture.

Capacity gap: El Salvador

Overview

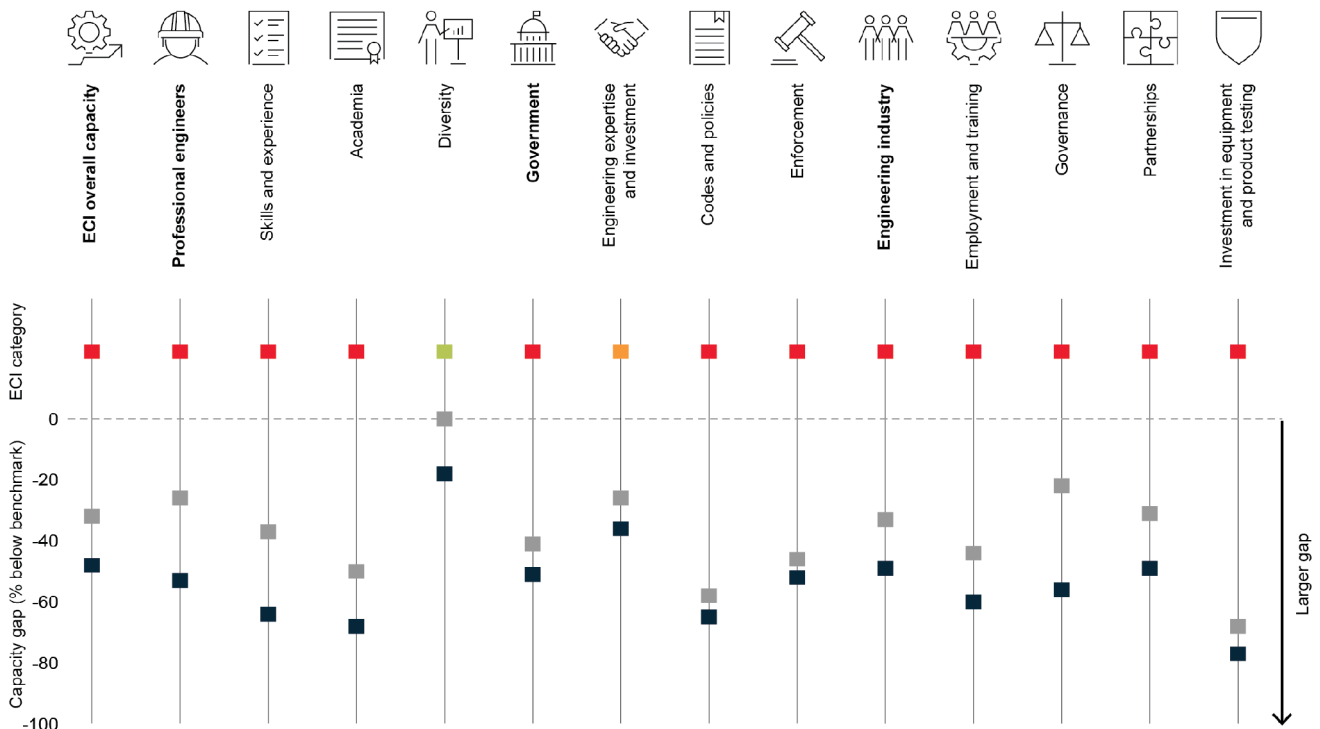
The ECI 2025 shows that El Salvador's overall engineering capacity score is in the inadequate range. Its strongest capacity is in the diversity of its engineering workforce, where it scores high and is the regional benchmark. El Salvador is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. El Salvador ranks at 99 out of 115 geographies in the ECI 2025 on both the average number of days of injury leave and fatalities from the construction, manufacturing and mining industries. Regarding infrastructure, El Salvador ranks at 108 out of 115 geographies in the ECI 2025 on quality infrastructure, according to the Global Quality Infrastructure Index, and 85 out of 115 on water and sanitation infrastructure, according to Yale Environmental Performance Index.

Professional engineers

According to the ECI 2025, the largest capacity gap for El Salvador's professional engineers is in academia when compared to the global and regional benchmarks. While it ranks in the upper half of the 115 geographies in the ECI 2025 for the percentage of engineering graduates from tertiary education, this does not translate into engineering jobs; it ranks at 104 out of 115 geographies for the percentage of engineering graduates working in engineering roles. This, along with the capacity gap in engineering industry employment and training, signals a potential lack of attractive employment opportunities for graduate engineers, as well as a potential mismatch with the skills needed in industry.

El Salvador capacity gap

■ Global benchmark ■ Regional benchmark ■ Advanced capacity ■ High capacity ■ Adequate capacity ■ Low capacity ■ Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Government

According to the ECI 2025, the largest capacity gap for El Salvador's government is in codes and policies when compared to the regional and global benchmarks. It ranks at 85 out of 115 geographies on both perceptions of regulatory quality and government effectiveness, according to World Bank data. It could further use its stronger engineering investment and expertise capacity area by collaborating with the private sector and professional engineers, particularly in academia. In the first instance, the government could collaborate to develop appropriate codes and policies to guide safer infrastructure plans and designs. In addition, joint public-private investments could be directed towards engineering-intensive projects to build engineering capacity. Achieving this requires coordinated efforts from all stakeholder groups across the ecosystem.

Engineering industry

According to the ECI 2025, the largest capacity gap for El Salvador's engineering industry is in investment in equipment and product testing when compared to the regional and global benchmarks. Data from S&P Global Capital IQ indicates that El Salvador has one of the lowest numbers of safety training companies per 1 million employees. This capacity gap is often linked to a capacity gap in governance, which is true for El Salvador. Combined with the government's capacity gap in codes and policies, this may indicate a lack of a welldeveloped safety culture. El Salvador has a relatively strong capacity in partnerships. It can leverage these more to work with national and international engineering organisations to share knowledge and learn from good practices on industry governance, as well as develop codes and policies.

Capacity gap: Guatemala

Overview

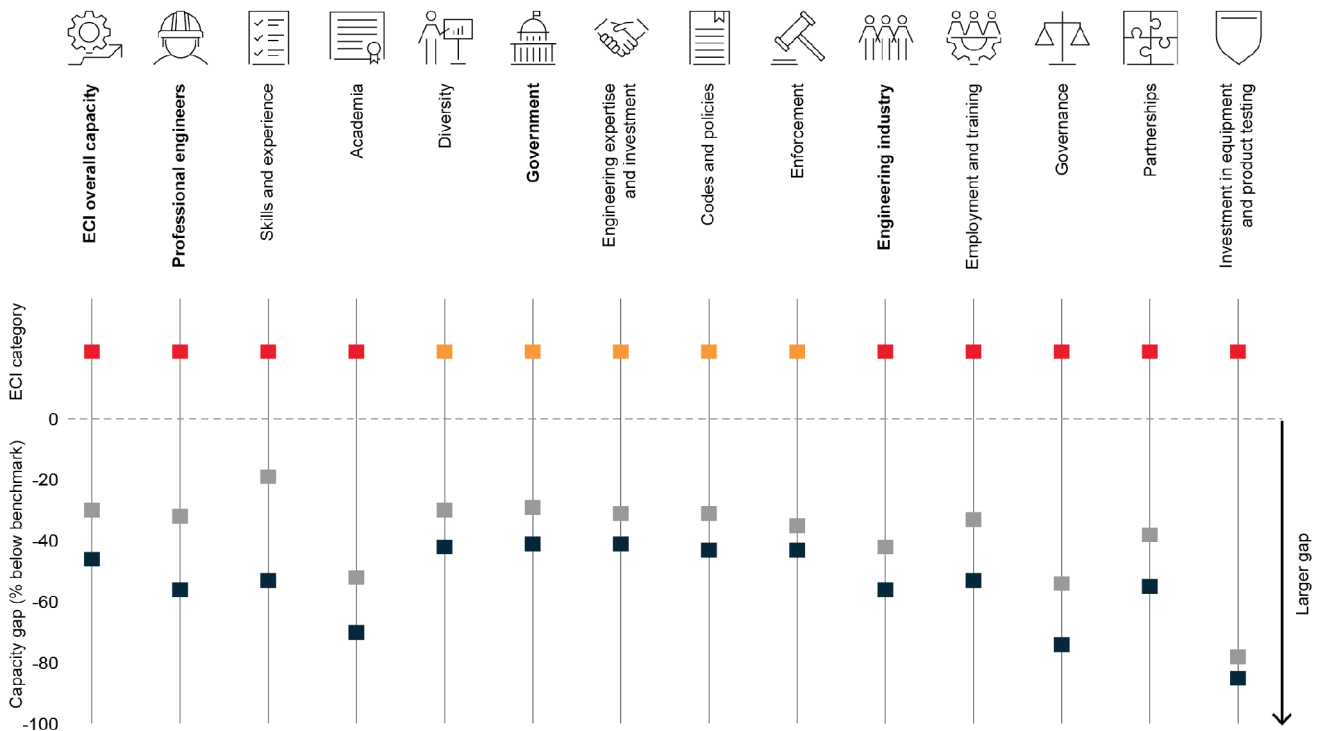
The ECI 2025 shows that Guatemala's overall engineering capacity score is in the inadequate range. Its strongest stakeholder group is government, where it has low capacity for all three capacity areas. Guatemala is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. Guatemala ranks at 80 out of 115 geographies on transportation and logistics, according to World Bank data, and 93 out of 115 geographies on sanitation and drinking water, according to the Yale Environmental Performance Index. On the other hand, Guatemala has few injuries and fatalities from construction, manufacturing, and mining, according to the International Labour Organisation.

Professional engineers

According to the ECI 2025, the largest capacity gap for Guatemala's professional engineers is in academia when compared to the regional and global benchmarks. Guatemala's engineering programmes rank in the bottom half of the 115 geographies on international rankings and on harmonised test scores, according to World Bank data. Although it scores well for the percentage of engineering graduates, ranking at 39 out of 115 geographies, this does not translate into employment; for engineering graduates working in engineering roles, it ranks at 98 out of 115 geographies. Combined with the inadequate capacity in engineering industry employment and training and relatively high capacity in government expertise and investment, this signals there may be a lack of adequate engineering jobs, that graduates may not have the skills needed, or that engineers may instead be working in the public sector. This could be improved through partnerships with the engineering industry to develop curricula that align with the skills needs of industry, as well as industry and government working together to invest in and provide adequate opportunities for engineering roles.

Guatemala capacity gap

Global benchmark Regional benchmark Advanced capacity High capacity Adequate capacity Low capacity Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Government

According to the ECI 2025, the largest capacity gap for Guatemala's government is in codes and policies when compared to the regional and global benchmark. Guatemala ranks at 84 out of 115 geographies on both perceptions of regulatory quality and government effectiveness, according to World Bank data. However, it can potentially leverage its relative strength in the government stakeholder group to close larger gaps in the other two stakeholder groups.

Engineering industry

According to the ECI 2025, the largest capacity gap globally and regionally is in investment in equipment and product testing. This gap is often linked to a gap in governance, and this is the case in Guatemala as well. Combined with the gap in government codes and policies, it signals a potential lack of attention to safety issues.

Capacity gap: Honduras

Overview

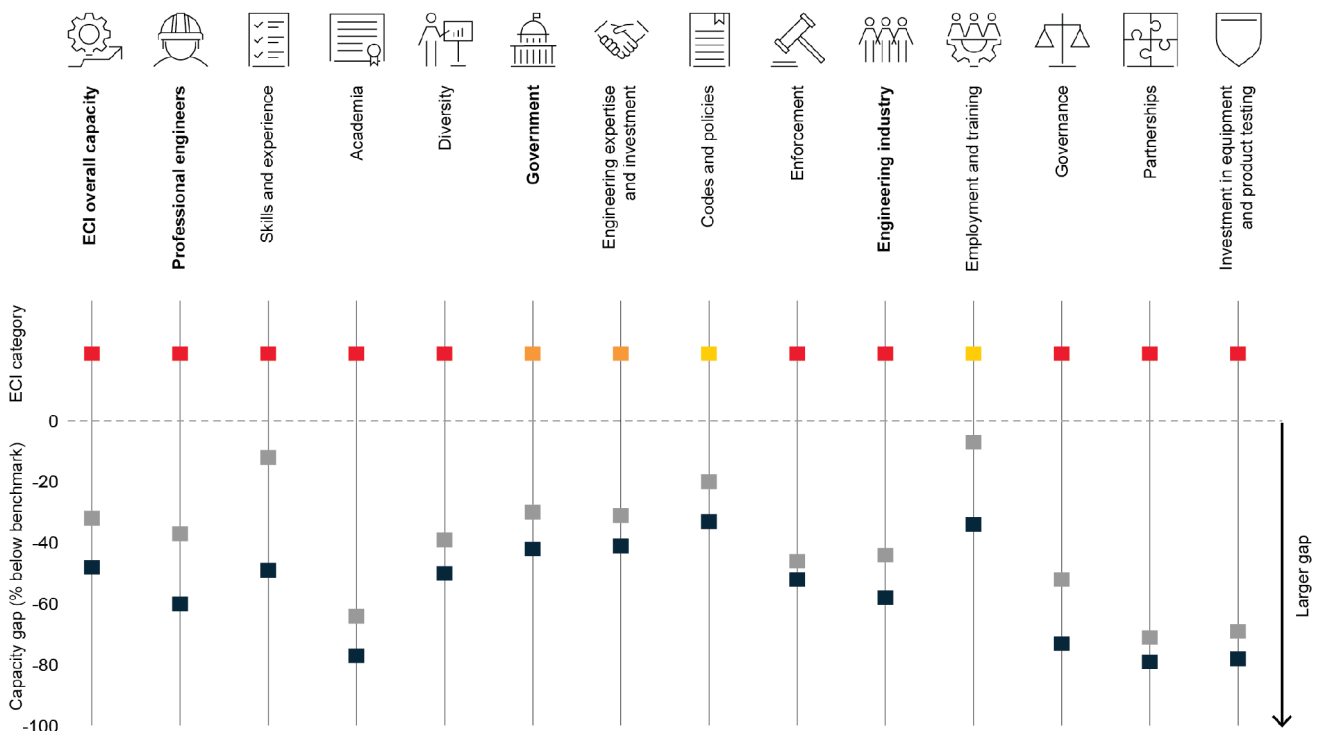
The ECI 2025 shows that, overall, Honduras' engineering capacity score is in the inadequate range. Its strongest capacity areas are government codes and policies and industry employment training, where it has adequate capacity. Honduras is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. This score may partly be driven by low scores across infrastructure measures. Out of the 115 geographies, Honduras ranks at 115 on the Global Quality Infrastructure Index.

Professional engineers

According to the ECI 2025, the largest capacity gap for Honduras' professional engineers is academia when compared to the regional and global benchmarks. Honduras has no universities on the Times World University Rankings for engineering degrees and has a low number of accredited institutions. Despite this, the skills and experience of professional engineers category has a relatively small capacity gap compared to other geographies in the region and compared to the regional benchmark. This is likely linked to the adequate capacity in industry employment and training, which also has a relatively small regional gap. Improving collaboration between academia and industry and leveraging the industry's employment and training capacity might be one approach to closing both the partnership and academia gaps and building stronger engineering capacity in Honduras overall.

Honduras capacity gap

Global benchmark Regional benchmark Advanced capacity High capacity Adequate capacity Low capacity Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Government

According to the ECI 2025, the largest capacity gap for Honduras' government is in enforcement when compared to the regional and global benchmarks. According to S&P Market Intelligence data, contract enforcement risk is high, and Honduras ranks at 90 out of 115 geographies. According to World Bank data, Honduras ranks at 92 out of 115 geographies on perceptions of government effectiveness. Its relatively stronger capacity in codes and policies indicates an awareness of the importance of safety issues; however, enforcement of these has a larger gap and scores as inadequate.

Engineering industry

According to the ECI 2025, the largest capacity gap for Honduras' engineering industry is in partnerships when compared to the regional and global benchmarks. Integration with associations and international organisations such as the International Organization for Standardization could greatly improve the nation's capacity. The partnerships capacity area is closely correlated with other capacity areas, and partnerships and knowledge sharing both internationally and across the ecosystem in Honduras could be used to help build industry governance and investment in equipment and product testing. The industry could also use academic partnerships and leverage its relative strength in employment and training to improve academic capacity, and so overall engineering capacity in the country.

Capacity gap: Paraguay

Overview

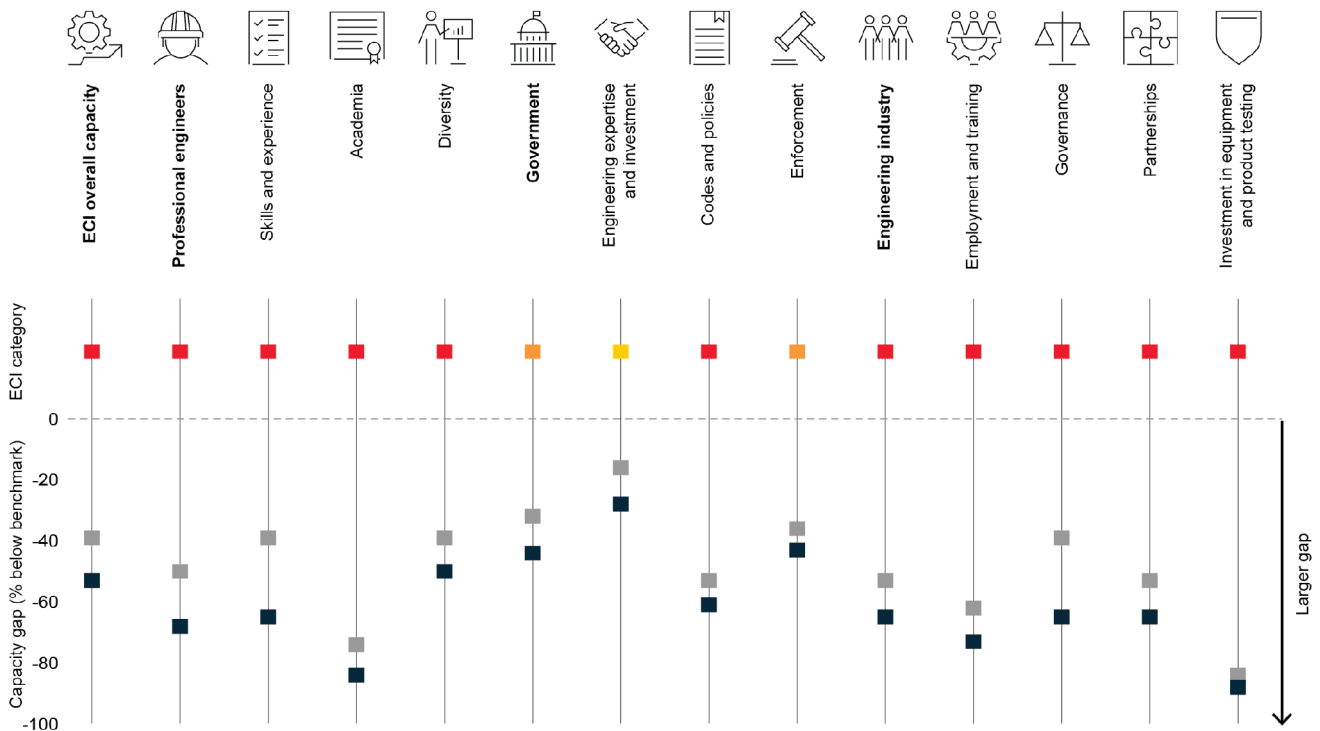
Engineering capacity overall for Paraguay is in the inadequate range, according to the ECI 2025. Its strongest capacity area is in engineering expertise and investment, where it has adequate capacity. Paraguay is in the lower-left quadrant in the Engineering Capability Matrix, indicating it has a potentially elevated risk of harm because of unsafe engineering practices. Paraguay ranks in the bottom 10% of countries for the average number of days of injury leave for employees in construction, manufacturing and mining, according to International Labour Organisation data. Paraguay also ranks in the bottom 10% of countries in road quality, according to data from the World Economic Forum.

Professional engineers

According to the ECI 2025, the largest capacity gap for Paraguay's professional engineers is in academia when compared to the regional and global benchmarks. Paraguay ranks at 92 out of 115 geographies in the percentage of engineering graduates. For those that do have engineering degrees, even fewer appear to take engineering jobs; Paraguay ranks at 114 out of 115 geographies for the percentage of employees with engineering degrees that work in engineering roles. The academic capacity area may be affected by weaknesses in the engineering industry, particularly in partnerships and employment opportunities, which both show inadequate capacity.

Paraguay capacity gap

■ Global benchmark ■ Regional benchmark ■ Advanced capacity ■ High capacity ■ Adequate capacity ■ Low capacity ■ Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Government

According to the ECI 2025, the largest capacity gap for Paraguay's government is in codes and policies when compared to the regional and global benchmarks. Paraguay ranks in the bottom half in regulations and requirements for mining companies. It has relative strength, scoring in the adequate capacity range, for engineering expertise and investment. Combined with the inadequate capacity of the engineering industry, this signals that most engineering jobs may be in the public sector. The government can leverage this strength to help build stronger engineering capacity elsewhere through developing codes and policies as well as investing in engineering-intensive projects with safety in mind.

Engineering industry

According to the ECI 2025, the largest capacity gap for Paraguay's engineering industry is in investment in equipment and product testing when compared to the regional and global benchmarks. Paraguay ranks in the bottom quarter of the 115 geographies in the value of engineering safety equipment imported and exported. This is often associated with a governance gap, which is true for Paraguay. Combined with the government's gap in codes and policies, this may suggest a need to further develop its safety culture.

Capacity gap: Mexico

Overview

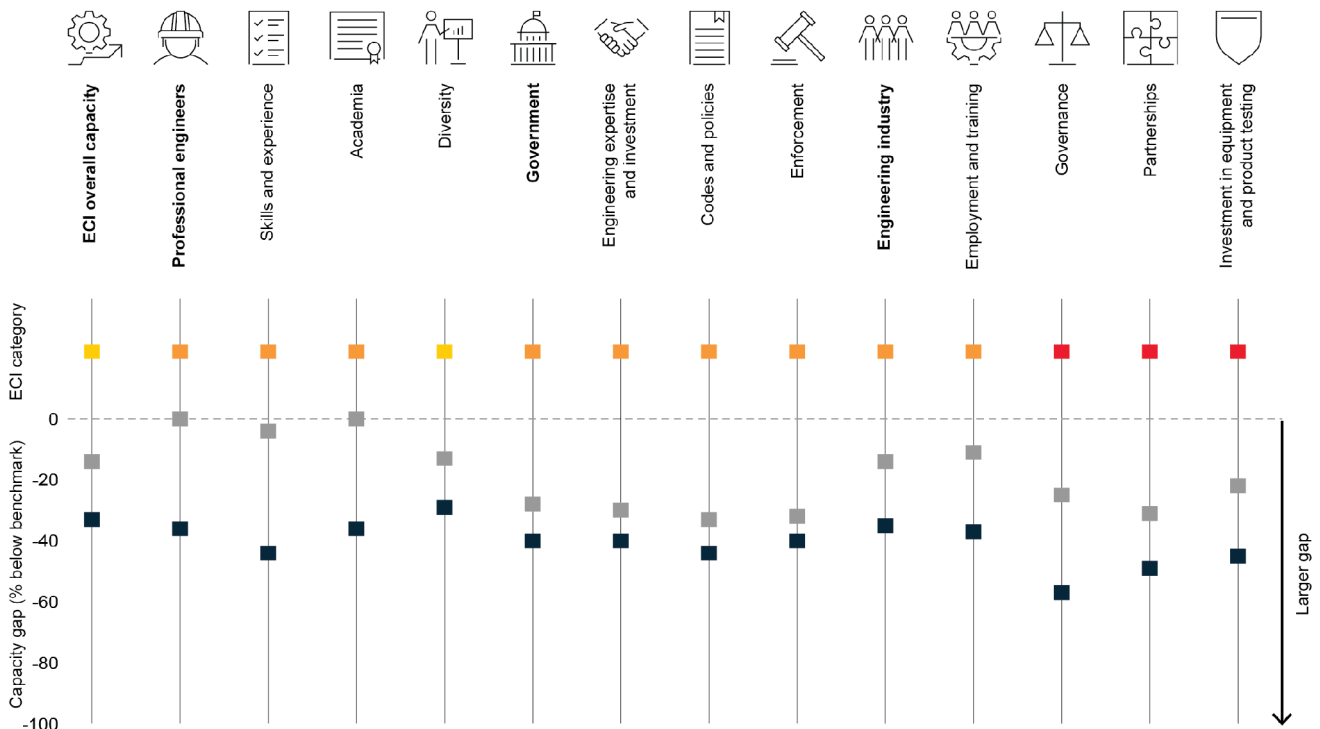
The ECI 2025 shows Mexico has an overall engineering capacity score in the adequate range. Its strongest capacity is in the diversity of its engineering workforce, where it has adequate capacity. It is the regional benchmark for academia in the professional engineering stakeholder group. Mexico is in the lower-right quadrant in the Engineering Capability Matrix, indicating it likely has a moderate risk of harm because of unsafe engineering practices. One area for improvement is an increased attention to engineering capacity for digital infrastructure; Mexico ranks at 80 in secure internet servers out of 115 geographies in the ECI 2025. While Mexico ranks at 15 out of 115 in quality infrastructure broadly, Mexico could improve in infrastructure disruption, where it ranks at 83.

Professional engineers

According to the ECI 2025, the largest capacity gap for Mexico's professional engineers is in diversity when compared to the regional benchmark, and in skills and experience when compared to the global benchmark. As mentioned, Mexico is notably the regional benchmark in academic capacity, though there is still room to improve when compared to the global benchmark. The relative lack of engineers with requisite skills and experience may be connected to a lack of opportunities for training and limited collaboration and partnerships between industry, academia and professional institutions, both areas with low capacity for Mexico.

Mexico capacity gap

■ Global benchmark ■ Regional benchmark ■ Advanced capacity ■ High capacity ■ Adequate capacity ■ Low capacity ■ Inadequate capacity



As of Jan. 5, 2024.

If there is not a gray box showing, then the regional benchmark is the same as the global benchmark.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

Government

According to the ECI 2025, the largest capacity gap for Mexico's government is in codes and policies when compared to the regional and global benchmarks. Mexico ranks in the bottom half in perceptions of regulatory quality, according to World Bank data. Codes and policies are one of the most interdependent capacities, according to the findings in the GEGR 2025. As such, it can impact the functioning of many other capacities – in particular, the enforcement and investment in equipment and product testing. Improving capacity in engineering codes and policies can therefore be an important point of entry for helping to improve overall engineering capacity in the geography.

Engineering industry

According to the ECI 2025, the largest capacity gap for Mexico's engineering industry is in governance when compared to the global benchmark, and in partnerships when compared to the regional benchmark. Increasing partnerships with groups such as the International Organization for Standardization as well as with academia could support industry by leveraging the relatively strong academic capacity. Partnerships with academia could help close gaps for professional engineers as well as employment and training gaps in the engineering industry. This could help bolster the engineering industry in Mexico and help the nation build better engineering capacity in a safe and effective way.