Navigating Uncertainty

INTERNATIONAL CONSTRUCTION COSTS 2025

FOREWORD

In our latest edition of the **Arcadis International Construction Costs (ICC)** report, we saw plenty of evidence of recovery across global construction markets last year. Cities in Europe and North America continue to top the list as the most expensive places to build in. Many markets showed encouraging signs of stabilization, with inflationary pressures beginning to ease. But as 2025 unfolds, is there a risk that this recovery could lose momentum?

Political and economic uncertainty has increased dramatically. In times like this, the easiest reaction for many clients is to wait and see. But development is essential to meet the needs of a growing population and a rapidly evolving economy. There is a risk that opportunities for well-timed and profitable development could be missed through delay.

From the rebuilding of Los Angeles to the creation of new multifamily housing in cities like Toronto and Manchester, and the adaptation of existing buildings in New York and London to meet changing client expectations, a constant cycle of building is an essential part of the resilience and adaptability of the modern economy.

Some markets, including the data center market, continue to boom. However, for many sectors, the mood is more hesitant. High financing costs, ongoing economic uncertainty and the lingering effects of the pandemic on how space is used have created a challenging environment for development. Rising tariffs and other trade barriers risk compounding these issues, further slowing growth. The consequences are far-reaching—from a deepening housing crisis to growing gaps in healthcare, education and commerce as owners struggle to adapt their existing buildings to meet rapidly evolving needs.

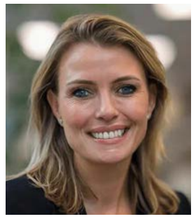
It has become significantly more challenging for visionary clients to advance new projects, as assembling teams and securing development financing become increasingly difficult in an uncertain and unpredictable environment.

But clients aren't powerless, and there are many steps that can be taken to have better control over of their projects. By aligning proposals with real market needs and partnering with designers and other consultants who understand how buildings function and how people and the environment interact with them, clients can create more resilient, future-ready developments.

With the help of experts in data and AI, it's possible to identify the critical success factors that drive both viability and long-term performance. At the same time, project teams can harness the power of digital platforms to develop proposals to a higher level of maturity—giving contractors and investors the confidence that plans are robust, deliverable and investment-ready before construction begins.

At Arcadis, we've brought together the design and technology expertise of our Architecture and Urbanism business with our full breadth of capabilities to support the economic fundamentals of development and assured delivery. We design for impact, making spaces work for people, for planet and for profit.

No single organization can guarantee certainty in development—it's a team effort. But when the starting point is strong and the vision is clear, each team member can play to their strengths. That starting point is design. The right brief and the right architectural response are essential for clients to take control early on, navigating development uncertainty with confidence.



Juud Tempelman
Global President, Places

ANALYSIS OF THE INDEX

Review of 2024: Change but no change

2024 was always likely to be a year of tumultuous change. Over 60 countries with 4 billion eligible voters went to the polls. Significant shifts in the global order felt inevitable. Last year was also a significant economic turning point as interest rate cycles turned. We anticipated that recession would be avoided in leading economies and that lower borrowing rates would revive investment in the built environment. Recovery was in the air. However, events didn't unfold quite as planned.

The 'year of democracy' certainly matched its billing. For the first time, every incumbent party in a developed economy saw a fall in vote share in 2024. A challenging combination of persistent inflation and wider social upheaval fed voter dissatisfaction and political turbulence. The outcome will be significant changes in economic policy, already evident in the US, Germany, the United Kingdom and beyond.

Change drives opportunity. New governments, including those in Germany, Italy and South Korea are set to significantly increase investment spending, with a consequential uptick for local construction markets. By contrast, policy priorities in the US are aimed squarely at attracting further industrial investment into the domestic market, with chip giants TSCM and Nvidia already announcing investment programs well into the hundreds of billions of dollars. In other markets including France, a political stalemate will stall progress in the construction sector.

Typically, political change takes time to bed in, as can be seen in the UK as the new Labour Government wrestles with a complex policy reform agenda, including major changes to the planning system. By contrast, market sentiment can shift rapidly. During 2024, in many markets monitored by Arcadis, the widely anticipated economic 'soft landing' —where renewed economic growth and low inflation were expected to follow a period of monetary tightening— failed to materialize. A brisk recovery was quickly extinguished by a combination of persistent inflation and higher long-term borrowing costs. Even modest forecasts for growth have now been downgraded in the face of an escalating tariff war.

With private investment retreating, public spending will likely play a bigger role in 2025 and 2026, particularly in defense, housing and social infrastructure. The rapid shift in sentiment means that, five years after the pandemic, many development markets continue to face significant headwinds, particularly around affordability and viability. Clients and their teams will need to pull every lever in the development equation, including scheme optimization, to get projects back on track. This applies to Europe, where confidence remains low, as well as Asian markets, including China, where residential oversupply persists.

Undoubtedly, the most consequential event in 2024 was President Trump's comprehensive election victory. Although the President has prioritized military peace missions early in his second term, he has also unleashed a different source of tension through a broadly based reciprocal tariff regime. Construction may be relatively insulated, relying heavily on local, low-value materials like cement, but risks remain, particularly in supply chains for globally sourced equipment like switchgear. Cost escalation is a real concern. And as diverted goods flood global markets, further instability may follow.

Other US policy shifts, including renewed NATO defense spending, signal a dramatically changing investment environment. Looking ahead, both public and private sector developers and investors will continue to navigate a landscape shaped by supply and demand shocks that may last far longer than expected.

Analysis of ICC 2025

Index insights

For 2025 we have retained our coverage of 100 key cities across the globe and thank our partners, acknowledged in the report, for their contribution.

Geneva and London remain at the top of the index but have switched places. Geneva saw construction inflation at 4% last year, whereas in London, increased costs continue to be driven by specification enhancements and new process requirements. Ultimately, in 2025, the relative strength of the Swiss franc as a safe haven currency has propelled the Swiss Financial Center to the top of the rankings. Currency fluctuations also mean that Dublin, the second most expensive city in the Eurozone after Munich, is ranked ninth. There are two US cities in the top 10. Lower rates of inflation and the weak dollar have led to lower rankings for most US cities in the ICC. Hong Kong also fell to 10 in the rankings this year.

Inflation appears to have been affected mostly by labor availability during 2024, which led to greater levels of variability at the level of regional markets. This can be seen in the US, where inflation ranged from around 1% in low-demand locations like New York and San Francisco, to over 5% in Florida where residential and commercial markets are more buoyant. Large schemes such as data centers in remote, small-state markets with a limited labor supply have seen even greater price pressure. Up until recently, commodity markets have been largely stable, although they have fallen recently in response to fears about global growth prospects.

Hong Kong's ranking fell as a result of flat prices and its currency peg with the US dollar. By contrast, prices have been moving sharply upward in Australia, where a modest recovery in workload combined with falling labor productivity has triggered inflation levels ranging from 6 to 10 percent. Other inflation hotspots include Eastern Europe, where inflation in Sofia and Zagreb reached double figures, as well as Tokyo, with construction prices increasing at 9%, and Lagos, where prices rose by over 70% because of the wider economic crisis. Western Europe is still exposed to many headwinds but there are some welcome signs of recovery, particularly in Amsterdam, the datum for the ICC index, where prices increased by 3%.

We have also updated our highly serviced building index. This additional index is necessary because the costs of these buildings do not vary to the degree suggested by our core ICC, due to global procurement strategies and the high value of equipment content. The index is derived from a combination of modeled and project-derived data.

HOW EXPENSIVE IS IT TO BUILD IN YOUR CITY?

How to use the ICC Index

Discover our data insights into global construction costs, including our annual comparative cost study of 100 global cities and regional cost comparison data across EMEA, APAC and the Americas; data insights into construction-specific price inflation; and an additional construction costs index on highly serviced buildings for assets such as data centers.

The ICC index is primarily intended to compare costs for complete buildings. The data in the index can be used to estimate the expenses associated with delivering a specific building function across different geographies using existing benchmark data.

When comparing costs using the ICC index, it is important to consider other factors such as currency, specification differentials, site constraints and location-specific requirements.

The ICC data is presented as a range, and values can be chosen from within that range to account for differences between the base and target buildings. It is worth noting that certain cost aspects, such as location-specific works and utilities provider costs, should not be solely calculated using ICC data. This is because the scope of work can vary between sites, requiring estimates based on initial designs. However, ICC-derived ratios can be used to adjust the rates.

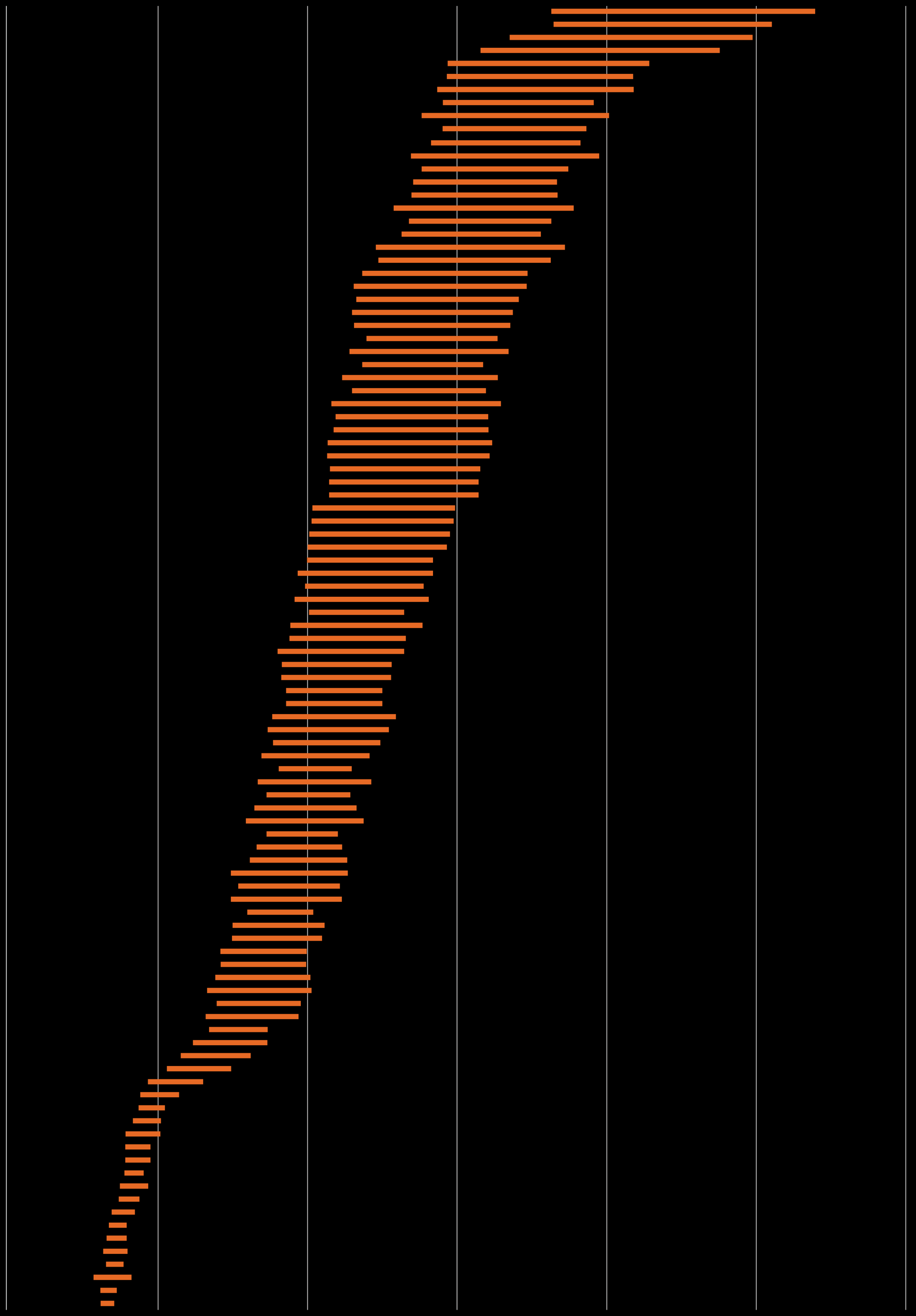
The ICC data is not suitable for cost adjustments in highly serviced buildings such as data centers. It can only be used to estimate the costs of the building shell and basic services installation. Adjustments to the factor used may be necessary if the base building is particularly complex.

In the ICC 2025 report, we have updated the highly serviced building construction cost index (HSB index). The high-technology construction cost index provides a high-level indication of cost differentials in select key locations.

International Construction Costs Index 2025

ICC data should be applied as a ratio | Target location index/Base location index = adjustment factor

		Average factor
01	Geneva	224
02	London	217
03	Zurich	206
04	Munich	196
05	New York City	179
06	Copenhagen	176
07	San Francisco	174
08	Bristol	169
09	Dublin	168
10	Hong Kong	167
11	Manchester	167
12	Philadelphia	167
13	Birmingham	163
14	Edinburgh	160
15	Macau	160
16	Boston	160
17	Cardiff	158
18	Glasgow	155
19	Berlin	155
20	Seattle	153
21	Los Angeles	147
22	Vienna	145
23	Las Vegas	144
24	Chicago	142
25	Oslo	142
26	Singapore	142
27	Washington DC	141
28	Belfast	139
29	Nice	138
30	Stockholm	138
31	Tokyo	137
32	Paris	136
33	Luxembourg	135
34	Frankfurt	135
35	Brussels	134
36	Denver	133
37	Marseille	133
38	Lyon	133
39	Detroit	126
40	Helsinki	126
41	Toronto	125
42	Miami	124
43	Christchurch	122
44	Phoenix	120
45	Sydney	120
46	Vancouver	119
47	Bratislava	117
48	Calgary	117
49	Auckland	114
50	Montreal	112
51	Riyadh	110
52	Brisbane	110
53	Rome	110
54	Milan	110
55	Dallas	110
56	Houston	108
57	Melbourne	107
58	Perth	103
59	Abu Dhabi	103
60	Prague	103
61	Dubai	101
62	Amsterdam	100
63	Zagreb	100
64	Warsaw	99
65	Athens	98
66	Istanbul	98
67	Sofia	95
68	Budapest	95
69	Belgrade	94
70	Krakow	92
71	Adelaide	91
72	Seoul	91
73	Riga	86
74	Sao Paulo	86
75	Lisbon	86
76	Bucharest	85
77	Rio de Janeiro	84
78	Barcelona	82
79	Madrid	78
80	Santiago	75
81	Bogota	70
82	Mexico City	64
83	Manila	57
84	Bangkok	51
85	Beijing	49
86	Shanghai	47
87	Lagos	46
88	Shenzhen	44
89	Guangzhou	44
90	Jakarta	43
91	Nairobi	43
92	Wuhan	41
93	Chengdu	39
94	Mumbai	37
95	Ho Chi Minh	37
96	Johannesburg	36
97	Delhi	36
98	Kuala Lumpur	36
99	Bengaluru	34
100	Buenos Aires	34



< Less costly to construct

Index base: Amsterdam 100

See methodology for basis of assessment.

More costly to construct >

Regional International Costs Comparison 2025

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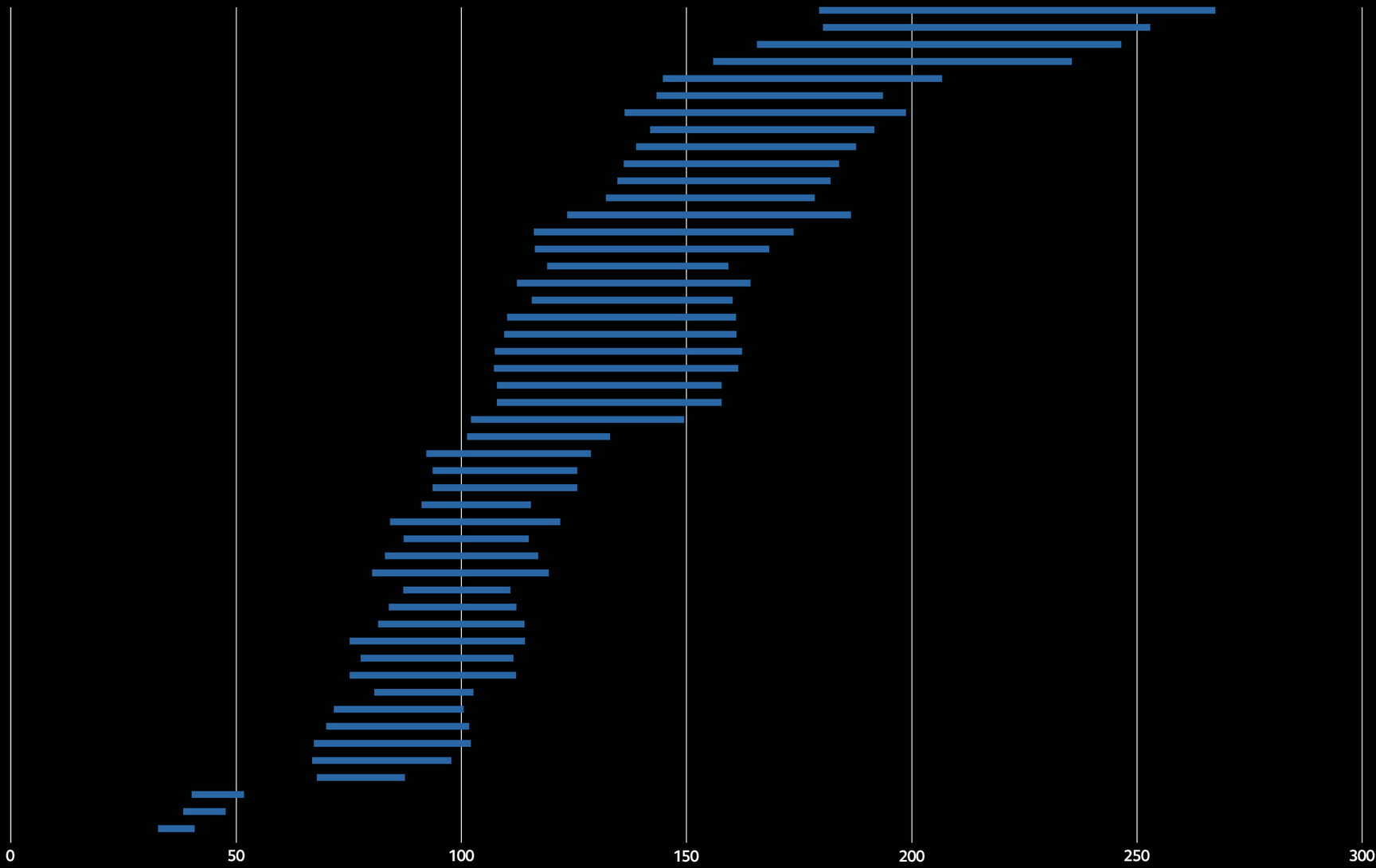
22	Vienna	145
25	Oslo	142
28	Belfast	139
29	Nice	138
30	Stockholm	138
32	Paris	136
33	Luxembourg	135
34	Frankfurt	135
35	Brussels	134
37	Marseille	133
38	Lyon	133
40	Helsinki	126
47	Bratislava	117
51	Riyadh	110
53	Rome	110
54	Milan	110
59	Abu Dhabi	103
60	Prague	103
61	Dubai	101
62	Amsterdam	100
63	Zagreb	100
64	Warsaw	99
65	Athens	98
66	Istanbul	98
67	Sofia	95
68	Budapest	95
69	Belgrade	94
70	Krakow	92
73	Riga	86
75	Lisbon	86
76	Bucharest	85
78	Barcelona	82
79	Madrid	78
87	Lagos	46
91	Nairobi	43
96	Johannesburg	36



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More costly to construct >

Indicative construction inflation for key locations in 2024 and 2025

Arcadis estimates construction tender price inflation for the 12 months prior to the fourth quarter of the stated year. Costs are for building construction only and do not necessarily apply to either volume housebuilding or infrastructure.

The table provides data on construction-specific price inflation for both 2024 and 2025. This inflation reflects the changes in construction prices paid by clients, rather than the input costs paid by contractors and the supply chain.

In 2024, the rate of inflation eased in most construction markets while remaining positive. For 2025, levels of inflation are expected to remain largely stable. We do not anticipate deflation in any market in 2025. The assessment excludes any assessment of the impact of tariffs.

- Faster price growth
- Stable price growth
- Slowing price growth
- Falling prices

EMEA

	%	Change to 4Q 2024	%	Change to 4Q 2025
Abu Dhabi	3 to 4	Stable	3 to 4	Stable
Amsterdam	3 to 4	Faster	1 to 2	Slowing
Berlin	2 to 4	Slowing	2 to 4	Stable
Brussels	3 to 4	Slowing	2 to 3	Slowing
Dublin	3 to 4	Slowing	3.5 to 4.5	Stable
London	1 to 2	Slowing	3 to 4	Faster
Madrid	3.5 to 4.5	Faster	2 to 3	Slowing
Paris	1 to 2	Slowing	1 to 2	Stable
Prague	2.5 to 3.5	Faster	4.5 to 5.5	Faster
Rome	0 to 1	Slowing	0.5 to 1.5	Stable
Vienna	2 to 3	Slowing	2.5 to 3.5	Stable
Warsaw	4 to 5	Slowing	5 to 6	Faster

Americas

	%	Change to 4Q 2024	%	Change to 4Q 2025
Boston	2 to 3	Stable	1.5 to 2.5	Stable
Chicago	1.5 to 2.5	Faster	1 to 2	Stable
Dallas	1.5 to 2.5	Slowing	1.5 to 2.5	Stable
Mexico City	4 to 6	Slowing	6 to 8	Faster
Miami	4.5 to 5.5	Faster	3.5 to 4.5	Slowing
New York	1.5 to 2.5	Stable	1.5 to 2.5	Stable
Phoenix	1 to 2	Slowing	1 to 2	Stable
Rio de Janeiro	3 to 5	Slowing	2.5 to 4.5	Stable
San Francisco	1 to 2	Slowing	1 to 2	Stable
Seattle	2 to 3	Slowing	2 to 3	Stable
Toronto	3 to 4	Faster	2 to 3	Slowing
Vancouver	0.5 to 1.5	Slowing	0.5 to 1.5	Stable

Asia Pacific

	%	Change to 4Q 2024	%	Change to 4Q 2025
Auckland	0 to 1	Slowing	2 to 3	Faster
Beijing	-2	Falling	0	Faster
Brisbane	5.5 to 6.5	Stable	5.5 to 6.5	Stable
Delhi	2.5 to 3.5	Slowing	3 to 4	Stable
Hong Kong	0	Slowing	-2	Falling
Jakarta	4.5 to 5.5	Stable	4.5 to 5.5	Stable
Kuala Lumpur	2.5 to 3.5	Stable	2.5 to 3.5	Stable
Singapore	2 to 3	Stable	3 to 6	Faster
Sydney	4.5 to 5.5	Stable	4 to 5	Stable
Tokyo	8.5 to 9.5	Faster	3	Slowing

Highly serviced building construction costs index and insights

Our definition of a highly serviced building (HSB) is one that features building services plant and systems within the completed building shell that exceed at least 50% of the total project value. All client fit-out such as data halls, production equipment and associated utilities are excluded from the scope of the factor. The most representative building type covered by the HSB index is a data center.

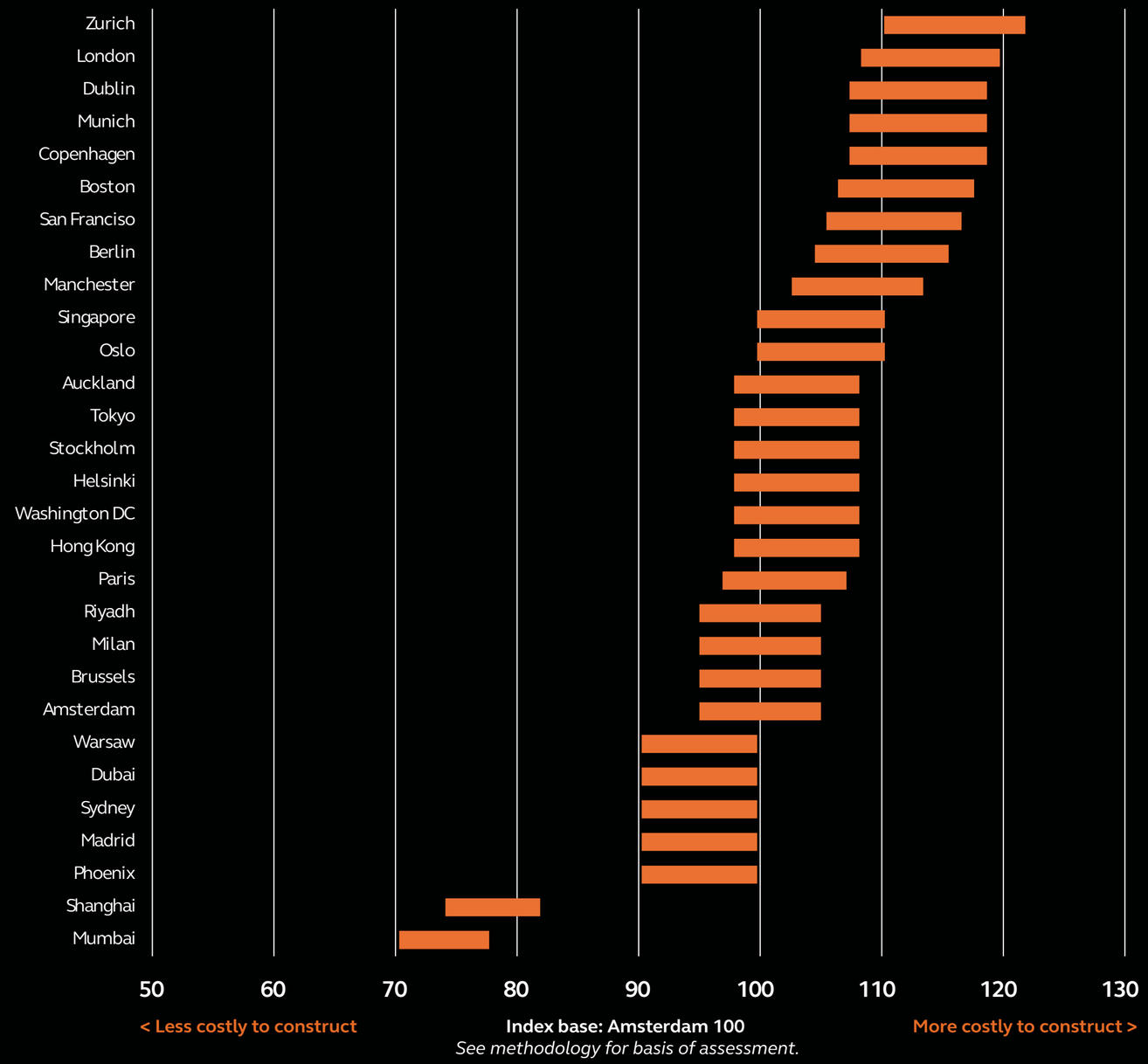
The HSB index should also not be used to adjust costs for location-specific external works and utilities provider costs. Ratios derived from the main ICC could potentially be used to adjust the rates used.

The HSB index range is narrow compared to the main ICC. This partly reflects the application of global specification standards for some highly serviced buildings, including data centers, meaning that there is less scope for local variation. The high proportion of the value of building services plant and equipment also results in a narrow cost range, as the cost of these elements varies less from country to country than in situ construction works.

High-cost locations from the main ICC are found at the top of the rankings, including London and San Francisco. Cost levels in Amsterdam are higher relative to many European locations. This reflects Amsterdam's status as a major data center cluster as well as the effect of continuing inflation affecting high technology projects in the Netherlands, even as other sectors have seen deflation in response to a slowdown in work. The HSB index should be applied with extra care. It is intended only for buildings with a high proportion of high-value service installations and should be used exclusively to calculate building costs of the fully serviced shell.

The index can also only be used to adjust costs for projects with a similar technical function, such as comparable levels of plant diversity specified for resilience. Costs of installations within tenant/serviced areas and costs of external services, including power supply, will need to be assessed on a project-specific basis.

Highly Serviced Building Construction Costs Comparison 2025



See methodology for basis of assessment.

Paul Maddison
Acting Global Head of Cost and Commercial Management

Facing the headwinds

The most positive outcome from 2024 is that most economies managed their transition to economic stability—avoiding recession even as the interest cycle peaked. Markets should be ready for recovery. However, inflation has proved to be persistent, and prospects for accelerating growth are diminishing. The International Monetary Fund (IMF) reduced its 2025 global growth forecast by 0.5% to 2.8% in April 2025, citing policy uncertainty and market volatility, persistent inflation and rising costs of debt, particularly for emerging economies. Escalating trade tensions highlighted by recent tariff announcements made a significant contribution to the downgrade, highlighting the uncertain outlook.

Looking back, perhaps the most significant market development for construction during 2024 was the increase in long-term borrowing costs that took place just as a turnaround in property markets seemed within reach. Even as central banks have cut base rates, long-term borrowing costs for governments and corporations have increased, rising by between 60 and 100 basis points since September 2024 across markets as diverse as Australia, Hong Kong, Germany and the US. Sectors sensitive to debt costs or investment yields continue to face headwinds. With economic growth slowing, expectations are rising for faster rate cuts—offering hope for private development if demand is sustained.

Construction markets are diverse, and, even in challenging times, some markets can be expected to boom, crowding out clients in traditional development markets. From advanced manufacturing in the US and Asia, to energy transition programs in the UK and Europe, contractors are reallocating resources to meet shifting demand. This is creating fresh competition for labor and materials—especially in traditional sectors like housing, commercial and social infrastructure. These must now compete harder for attention and capacity as national economies and global markets are rewired in response to the forces of transformation.

Despite many challenges, there is a clear horizon of opportunity. Even with slower growth, most development markets show strong underlying demand, whether for modern, near-zero-carbon office space, data center capacity or housing. Demand for data centers, for example, has driven rents high enough to offset construction cost premiums.

By contrast, commercial and residential projects in many markets still face a viability gap that will only be closed using creative solutions driven by all members of the development team. Our ICC analysis highlights that most construction markets remain exposed to price inflation, even if cost escalation has moderated. This means that construction clients cannot rely solely on market competition to improve affordability. Every stage of the development process—from site selection and concept design to risk allocation—must be optimized to meet viability thresholds.

While there is little margin for error, the potential upside is significant. Success will come from developing the right schemes, ready to capitalize on renewed growth and sentiment. With deep sector expertise, digital innovation and bold design, clients can navigate today's headwinds with confidence and turn uncertainty into opportunity.

GLOBAL MARKETS DEEP DIVE

Understanding the impact of tariffs for construction markets

After three decades of accelerating globalization under the umbrella of the World Trade Organization and expanded trading blocs, free trade is being challenged as never before. While many tariffs proposed by the US are on hold, the level of uncertainty affecting both impacted countries and at-risk sectors like automotive is exceptionally high.

Simon Rawlinson
Head of Strategic Research

Free trade has been an important growth engine over the past 30 years, making an outsized contribution to the 230% growth in global GDP recorded since 1995. Trade barriers won't send the global economy into reverse, but in its first assessment of the impact of tariffs, the IMF downgraded its growth forecast to 2.8%, with the US projected to see a 0.9% deceleration to 1.8% in 2025.

Emerging US tariff policy is being driven by multiple objectives, including the correction of trade imbalances, revenue raising and specific policy aims related to drugs, migration and sanctions. Negotiations with trading partners have commenced, introducing further changes to trading relations and patterns of investment. The complexity of the US tariff agenda adds to its unpredictability and, as a result, to the wider impact that trade barriers could have on investment and growth.

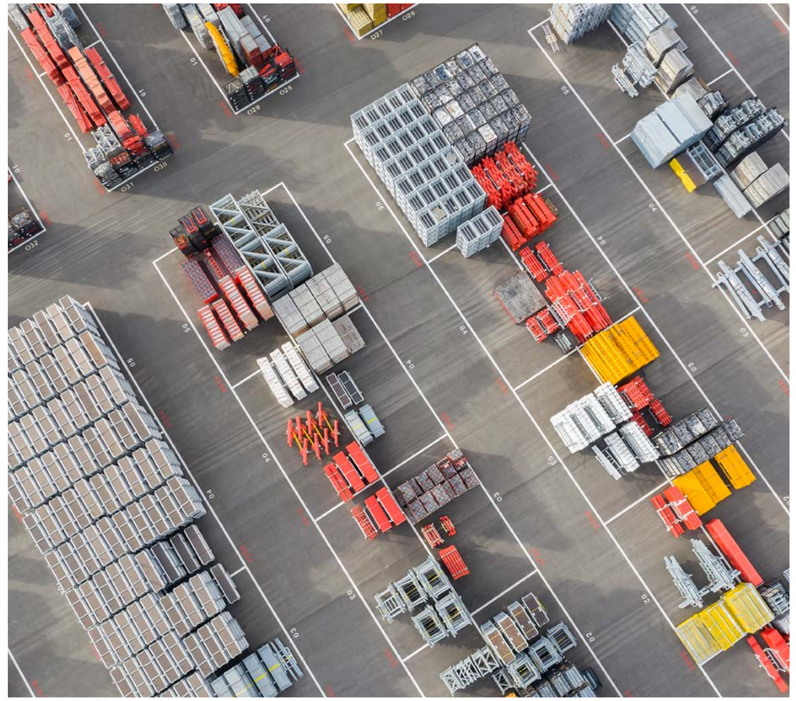
Potential impact on construction

At the time of writing, except for Canada, China and the European Union, few retaliatory tariff regimes have been announced in response to US proposals. China imports around $35 billion of mechanical, electrical and electronic equipment each year (2023 data), so wider effects could emerge—but for now, the impact is largely concentrated in the US.

Key questions associated with tariffs include whether prices will rise and if material flows will be disrupted. For construction, which often relies on domestic supply chains, the impact is likely to be more muted than in other sectors. Construction materials are typically heavy and of low value, meaning that transport costs play a significant role in supply chain geography. An exception could be the US and Canadian markets, which are highly integrated and which involve significant volumes of cross-border trade. In Canada, popular 'buy Canadian' initiatives could result in product scarcity and inflationary pressures over time.

A key aim of tariffs is to create a price barrier to foreign competition. In markets where domestic competition dominates, prices are less likely to rise, as external suppliers may absorb costs or redirect exports elsewhere. This outcome is likely to be the case in most affected markets for the construction sector, with domestic competition keeping prices in check.

By contrast, where imported goods play a significant role in meeting demand within a supply chain, the tariff-adjusted price will establish a new benchmark, enabling domestic suppliers to increase margins. This occurred with structural steel costs in the US in 2018/2019 when tariffs were last applied, when the cost of steel sections and pipes increased by 20% year on year. 25% of steel used in the US is still imported, so this pattern of a pan-industry inflationary spike could be repeated.

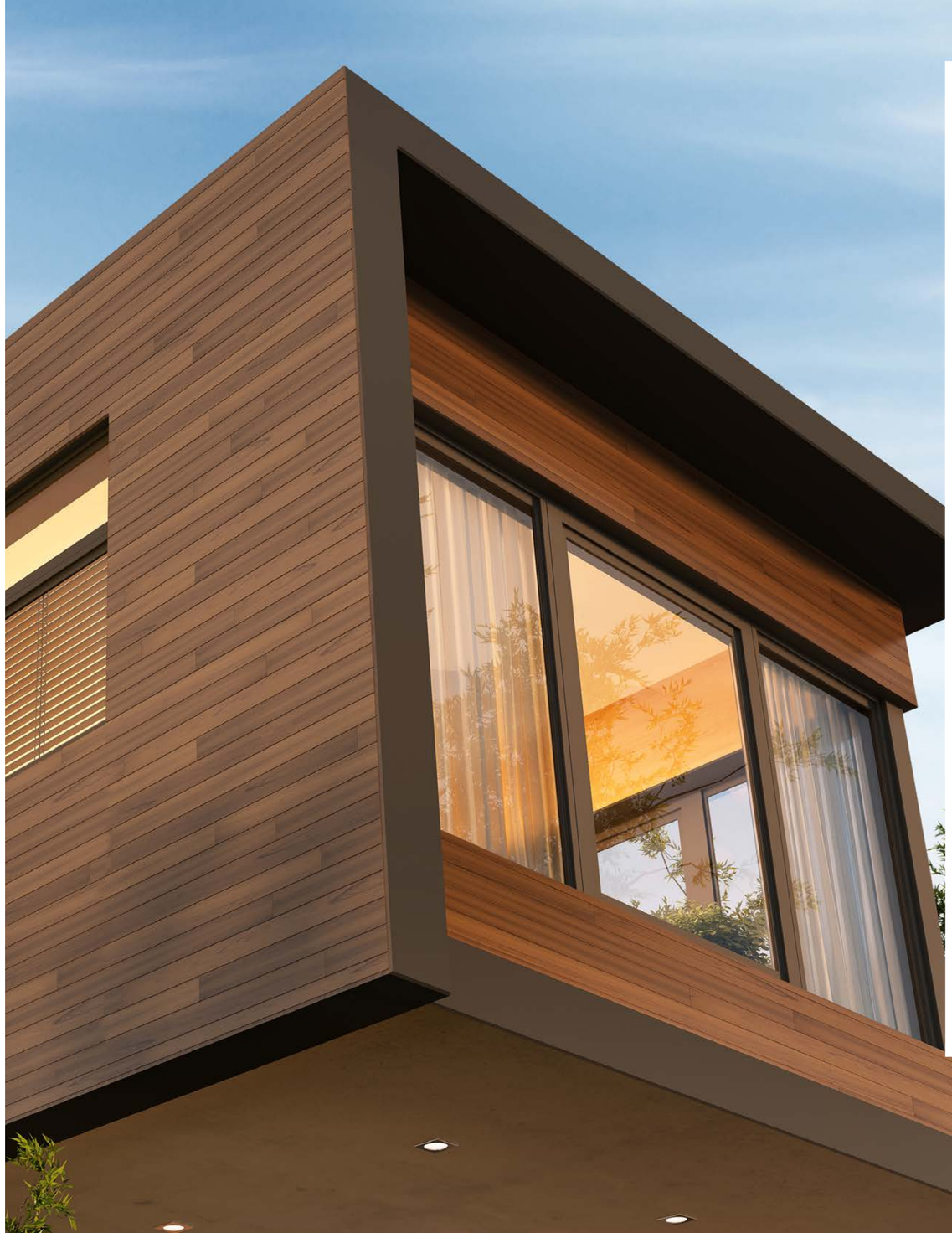


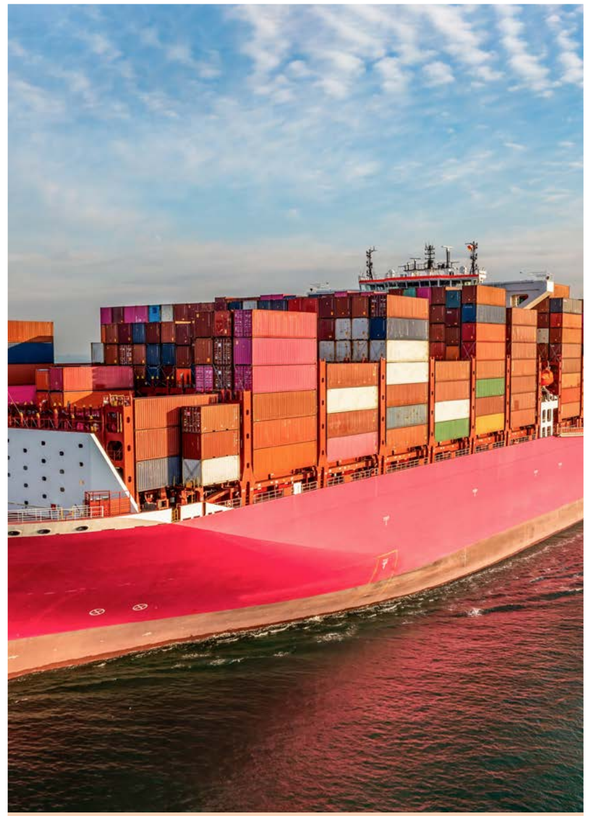
Third-party data provides some insights into how markets might develop. The UK, for example, imports nearly £23 billion of construction-related materials, with 60% being sourced from the EU, the UK's nearest trading partner. A significant portion of imports is associated with complex supply chains, with at least 25% by value falling into categories including lamps and fittings and air conditioning equipment where there is a circular, cross-border trade with EU-located firms associated with different stages of product manufacture. This data suggests that the impact of tariffs in the UK will be limited. Similarly, for the US, research published by the National Association of Home Builders in December 2024 found that 7% of goods associated with house-building were imported, with the greatest impact of import penetration associated with technology products like domestic appliances rather than basic materials like lumber.

Imported lumber could still be an inflationary factor in the US. Canada currently supplies around 23% of total US consumption. This is the lowest level on record, down from 33% in 2016, but still a significant share. Increased tariffs worth 14.5% now apply to lumber imports into the US, but based on proposals for a general tariff, this could increase. Prices are likely to rise in the short to medium term as US production lags demand as it shifts in response to the impact of tariffs. Most spare capacity in the US is in the South and West, so markets in the North and Northeast are likely to be most exposed to increased costs associated either with tariffs or with increased transport costs.

Deflation risks outside of the US

Beyond the US, the wider disruption to global trade triggered by tariffs could have further cumulative effects caused by the redirection of products away from the US, resulting in oversupply and lower prices. The EU and UK have already acted to protect domestic aluminum and steel manufacturers from unfair competition, as producers in Asia pivot from the US to Europe in search of replacement markets. The World Trade Organization permits protection measures including 'anti-dumping' rules, which prevent imports from being sold below home-market prices, and safeguarding measures that temporarily limit specific imports while the domestic industry adjusts.





Summary

The construction sector is less exposed to the impact of tariffs globally, although the US and Canada will be disproportionately affected due to the closed integration of supply chains for basic materials, including lumber and steel. Markets in Europe, the UK, Australia and Asia (excluding China) are less likely to be directly affected. However, low-cost importers redirecting goods away from the US could disrupt other markets. While this may initially lower prices, the indiscriminate nature of trade remedies could result in import restrictions affecting existing supply chains. The main watchout for construction businesses is the wider impact of tariffs on growth and demand. If the market does slow, the indirect impact of tariffs could be much more widespread than initially appears to be the case.

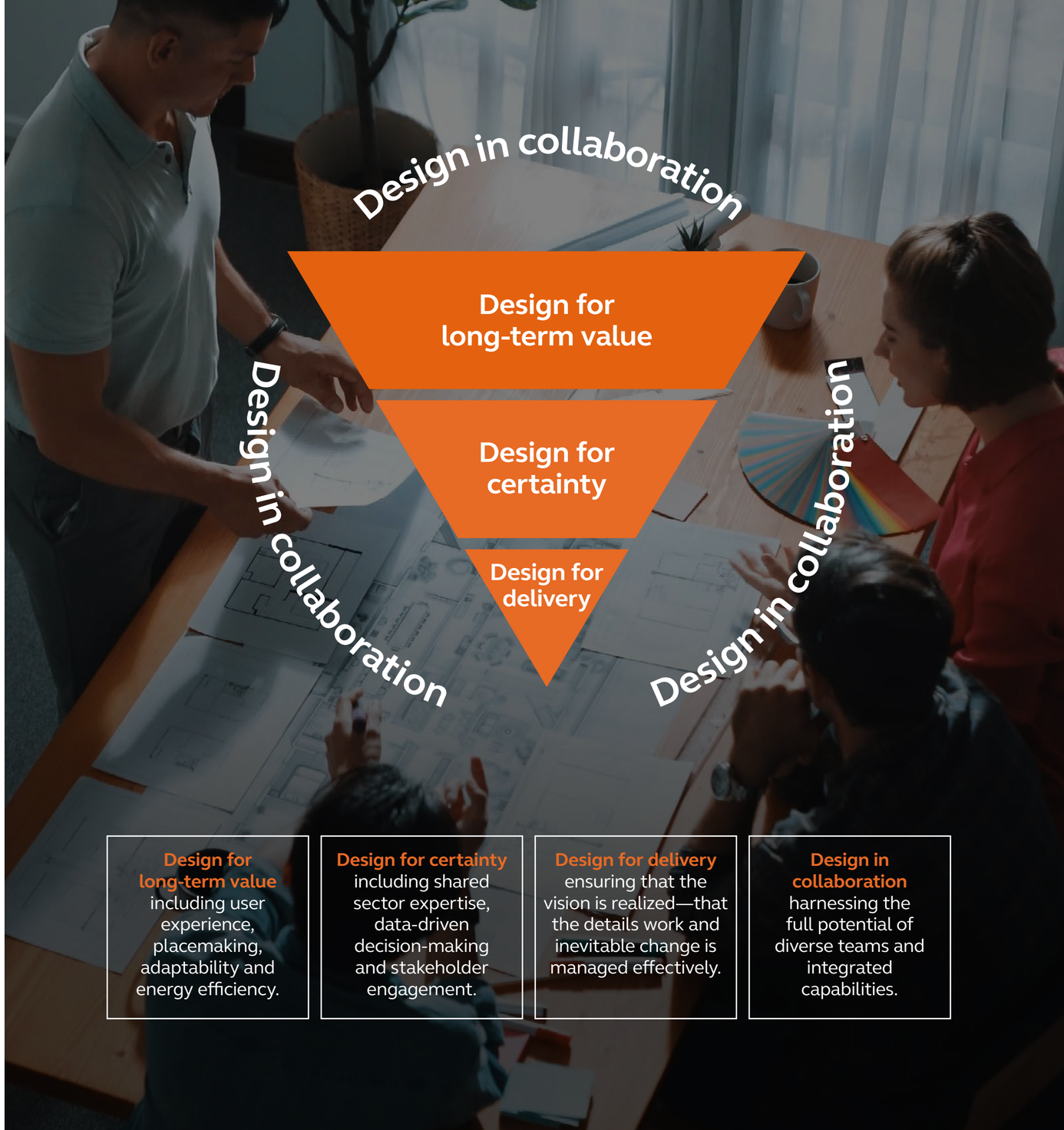
DESIGN FOR IMPACT

Following the full integration of our Architecture and Urbanism business, Arcadis is ranked the second-largest architectural design practice globally. Working across all sectors, with particular expertise in residential, retail, transit, education, mission-critical facilities and healthcare, our Architecture and Urbanism business brings decades of experience, skills and capabilities to developing and delivering high-impact, high-quality buildings that are viable, valuable and adaptable. With the majority of our commissions involving full-service delivery from concept to completion, our passion is to get the right projects built to ensure that full benefits are secured by owners and their customers—whether residents, students, patients or workplace colleagues.

Mansoor Kazerouni
Global Director, Architecture and Urbanism

We recognize the scale of trust that owners place in us, asking us to collectively solve some of the most complex challenges in development. We need to respond to fast-changing client needs, to evolving regulations and leaps in technology. Critically, we can never take our eyes off how people will experience place and space, life, work and play, now and in the future. We horizon-scan to understand emerging trends, we use data in ever more complex ways to test new ideas, and we share learnings.

In this feature, we capture some of the lessons that contribute to the delivery of viable, valuable and adaptable buildings and places. Our focus complements *The Design Perspective*, our survey of actionable, forward-thinking solutions for today's built environment challenges. We focus on four critical aspects of practice that help us to ensure that our owner-clients secure full value from their development opportunities. Design is at the heart of these capabilities, working progressively to create, validate and build our clients' vision.



Design for long-term value

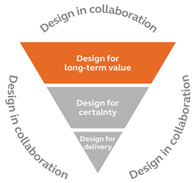
The core purpose of the architecture team within the wider project team is to create, through design, long-term value through the development process. How value is defined varies by sector, client and project context. For instance, a housing scheme designed for sale will demand a fundamentally different approach than one intended for long-term hold.

Owners are asking more complex and forward-looking questions about adaptability, sustainability and environmental impact. To meet these evolving demands, we use cutting-edge proprietary computational design technologies to accelerate the linear design process. These tools allow us to evaluate key performance levers early on, from layout and sales values to internal environmental conditions. In healthcare, our advanced digital models enable us to validate the program, spatial adjacencies and travel distances, configuring a hospital at an early stage in the design process for long-term performance and adaptability.

People are at the heart of the value we create for users and a wider community. Whether it's a mixed-use retail hub or purpose-built student accommodation, we design for emotional connection as much as function. Designing for people is an art, but it is increasingly backed by insight derived from data and user feedback. Our Customer Effort Score, for example, which we apply in our retail and hospitality projects, encourages us to consider the guest's full cycle of experience, from desire to fulfillment, and how this informs the design of both the building, interior and customer journey.

People and places are incredibly dynamic. Designing for long-term value means anticipating and accommodating present and future needs with adaptable solutions. This requires future-forward flexibility, engaging with the latest building technologies and systems that combine to deliver the required outcome, whether in the workplace or a rental apartment. We also need to be able to anticipate and respond to economic cycles, adapting our proposals not only to customer aspiration but also to what the market dictates and how the market is evolving.

As designers, it is our responsibility to stretch our creativity to deliver places that inspire and delight—but we are also stewards of the brief and its long-term outcomes. By bringing these elements together, we strive to deliver lasting, meaningful value for our clients and communities.



CASE STUDY

River Grove Elementary School, Portland

River Grove Elementary School serves 600 students up to fifth grade. Located in a Portland suburb, the replacement school is a 78,500-square foot, two-story building located on a 10-acre site. The school is organized around the experience of the students, with classroom spaces grouped into "learning neighborhoods", each with access to outdoor learning spaces.

The specific challenge of the project was to meet the client's objectives to deliver a sustainable and resilient design against the background of extreme weather events including forest fires, ice storms and heat domes. Increasingly, large public spaces like schools need to act as places of refuge during natural disasters, as well as community resources.

Furthermore, climate change has rendered passive design solutions ineffective. The team had to find new solutions that delivered a sustainable building that could still function during an extreme weather event.

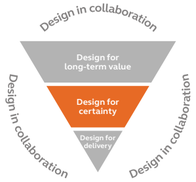
The solution adopted is a microgrid system. River Grove is one of the first American schools to feature this innovation. The microgrid controller utilizes a large photovoltaic (PV) array, battery energy storage system (BESS) and generator to enable the building to operate independent of the grid.

Other features that ensure resilience include the design to enable continued occupation in the event of a seismic activity, as well as enhanced critical systems including emergency power to common areas and external connections for drinking water delivery.

River Grove School is a popular community asset providing an excellent student-centered education. It is also equipped as a community refuge in the event of a natural disaster. Since opening in 2024, this added capability has not yet been tested, but the positive response to River Grove has made it a featured project for the district that is being used to promote future investment via a bond issue.

River Grove School illustrates the contributions the architects make through design for long-term value, balancing a complex set of requirements to deliver a high-performing, human-scaled school with built-in resilience. **Design for long-term value** requires close attention to user needs, adaptability and lateral thinking, as well as powerful analytics to assure outcomes. The River Grove School development has delivered a community asset that is fit for an uncertain future as well as present needs.

Rebecca Stuecker
Principal Practice Group Manager, Education



CASE STUDY

Exchange District, Mississauga

The Exchange District in Mississauga, Ontario is a model for large-scale residential development anchored by mixed uses, including retail, leisure, office and a boutique hotel. The development has created a unique destination district that extends to the urban core of Mississauga.

The Exchange District consists of four condominium towers with heights between 66 and 30 floors. Developed around a landscaped, above-grade plaza, the scheme delivers two million square feet of mixed-use development. Among its many unique features, the Exchange District includes the tallest geothermally-heated building in North America, contributing to reduced operating costs and carbon emissions. The key challenges of the developers have been associated with the project's role in extending the urban core—creating a highly attractive residential destination and securing the highest and best use approval in the absence of limitations for height and density. The development also benefits from outstanding design in competition with neighboring iconic towers, as well as a fast construction program enabled by a very buildable, standardized design module.

The key architectural solution is the mixed-use masterplan. In effect, both the planning opportunity and the market for residential have been enabled by a distinctive and human-centered design solution. The towers add to the Mississauga skyline, while the plaza ensures that residents have all the amenities on hand for enjoyable, city center living. A critical element of the masterplan is the high-quality public realm of the elevated plaza. The design of the towers is based on a standardized, six-story module, repeated across the development in an alternating arrangement, creating a highly articulated built form with terraces and soffits at every sixth level. The adoption of the standardized floor plate introduced many construction efficiencies and economies of scale but introduced some inflexibility. Strong unit design expertise catering to the needs of end users derisked this strategy by ensuring that unit layouts met customer demand and expectations.

The Exchange District is nearing completion. Sales have been very strong and unit values have increased dramatically as its unique attributes have become clear. Its successful completion demonstrates how, by designing for certainty, architects make a critical contribution to development outcomes, particularly in reducing development risk. **Design for certainty** relies on a deep understanding of the client's development drivers, including planning and sales, exemplified by the outcomes delivered by the award-winning Exchange District.

Henry Burstyn
Principal Practice
Group Manager, Living

Neno Kovacevic
Principal, Placemaking

Design for certainty

Development is an inherently complex and challenging process. Everyone in the team faces their own challenges, ambiguities and complexities. Owners, above all, need to be enabled to focus on their key challenges associated with their target market and funding, for example, secure in the knowledge that the project team is protecting their wider interests.

Design for certainty is rooted in knowledge and empathy. Knowledge of the asset, the location and its market, backed by an appreciation of the client's drivers and how the project team can support them. Our retail specialists, for example, regularly support developers in their discussions with anchor tenants, who are also valued clients in their own right. By shaping retail environments that align with tenant needs and aspirations, we help secure critical commitments that set the tone for the wider scheme and reinforce the investment case.

Clients also need to be certain that their scheme represents the best development that can be delivered—not only for investors but also with respect to the planning process. This challenge can be addressed at many stages: from site acquisition to later stages of master planning, development phasing where parametric and computational design tools can be used to test schemes around multiple constraints including zoning, building regulations, environmental performance and development cashflow. We can support an owner in understanding the optimum mix of uses for a single site, or the best combination of sites that will fulfill the owner's requirement, for example, the most efficient locations for a network of vehicle charging hubs.

More and more, the digital tools that enable projects to be iterated and tested repeatedly are available to all. Optioneering is increasingly easy to do, but for the process to deliver true value and certainty it needs to be rooted in both an understanding of the sector and quality data—using benchmarks and tests that get to the heart of the client's certainty problem. We can apply multiple hard and soft criteria spanning orientation and user comfort or capital cost, embodied carbon and long-term performance. The results of hundreds of thousands of iterations will clearly highlight the options that generate the most predictable outcomes—giving clients confidence when making critical decisions.

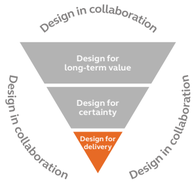
Used effectively, digital tools enable us to push design further—demonstrating that problems have been addressed and mitigated. We can use high-quality rendering at an early stage to test the look and feel of a development, triggering insight from a human connection. We can use rules derived from a prescriptive brief to demonstrate compliance. Design for certainty brings these insights forward, derisking key aspects of development driven by design.

Design for delivery

Our passion is to ensure that once we have identified and designed the right project for the client, it gets built as intended. Executing the vision is in our DNA. Project execution involves the fulfillment of the promise of the site, the brief and the owner's vision. Most of our commissions are based on full-service delivery, so we stay with the scheme to the end. All our design studios are equipped with leaders and skilled specialists with the practical experience needed for project delivery. Working with general contractors and the wider delivery team, we manage the production of high-quality, fully coordinated information and robust buildable details that ensure construction is delivered with certainty—on time and on budget.

The construction phase of a scheme is hard work. We understand that much of the value created at this stage is in the quality and certainty of details and working drawings. The volume of information required, and the complexity of coordination and information management demands scale, leveraged by technology. Arcadis is a technology super-user making full use of the capabilities of cloud-based platforms to drive innovation and to support coordinated working. We use localized standard details and design objects to eliminate repetition and waste. Our global teams work around the clock, using automated quality checks and completeness reviews to stay aligned with contractor schedules and deliver with certainty.

Ensuring that a project gets built often requires us to defend the vision, even as we develop the details. Our focus is on the owner's value drivers, bringing forward deliverable proposals. But we also aim to protect the key features of a design that create lasting impact: the beauty, the user experience and the design intent that make a building stand the test of time. By taking responsibility for design from inception to execution, we are in the position to provide this essential design advocacy—fulfilling the promise.



CASE STUDY

Tiffany & Co. Landmark, New York

The Tiffany & Co. Landmark project involves the comprehensive renovation of a nearly century-old building on Fifth Avenue, New York City. The aim was to reinforce Tiffany & Co.'s iconic presence in Midtown New York by creating a rejuvenated, state-of-the-art retail experience, integrating historical elements with modern luxury, improving operational efficiency and elevating the customer journey.

The challenge of the project was to renovate the original structure while integrating new luxury features such as glass-encased upper floors, a grand staircase and cutting-edge digital installations. The new design had to ensure seamless customer flow and operational efficiency in a high-traffic retail environment to provide a world-class shopping destination that embodies elegance, efficiency and sophistication.

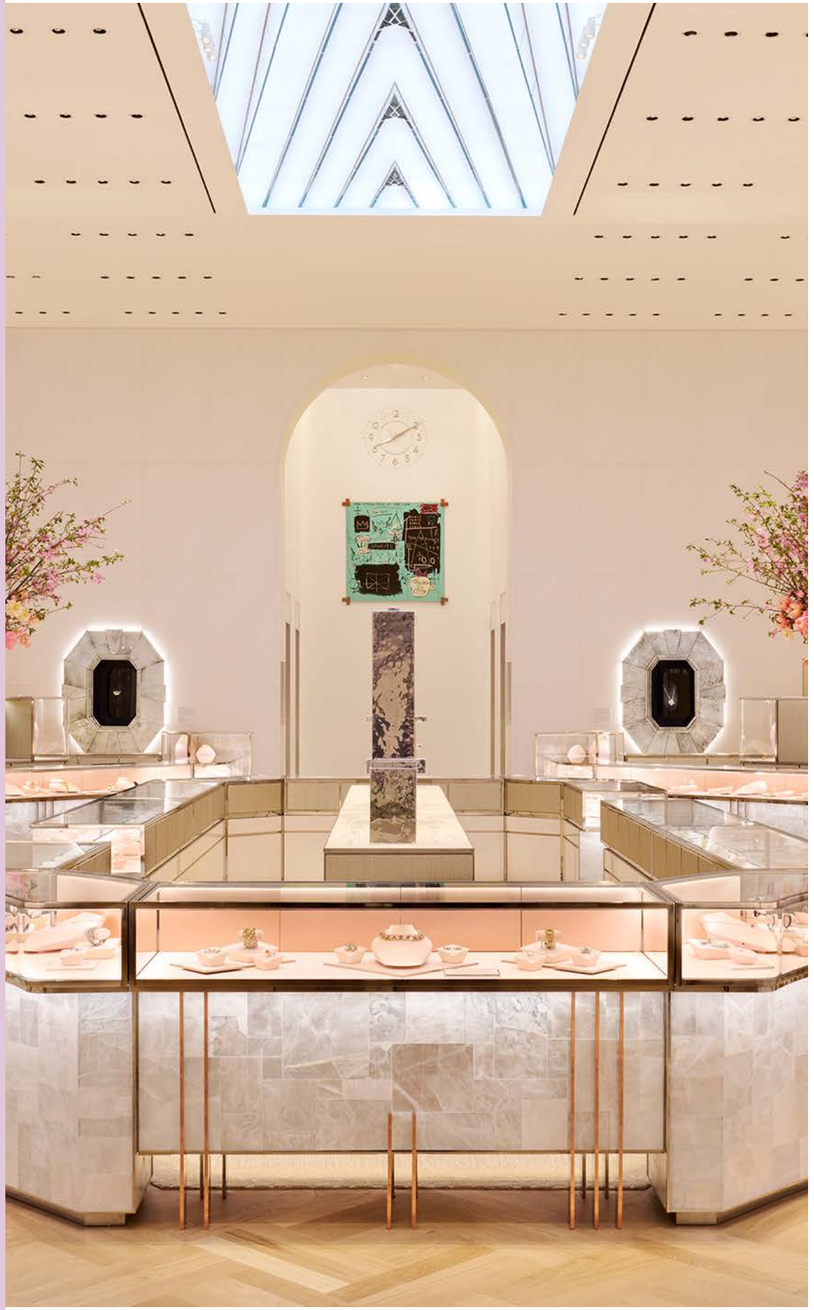
Arcadis' role as Architect of Record was to develop and deliver the architectural solutions to realize the retail design vision, working within the constraints of the existing structure while enabling the addition of modern elements including fully glazed upper floors with panoramic views of Central Park. The solutions we developed enhanced customer movement around the store and integrated advanced technology including Vertical Lift Modules (VLMs) to streamline merchandise retrieval that maximized retail space. Our work also involved collaboration with leading consultants for lighting and custom fixtures and included over 40 unique artworks to elevate the in-store experience.

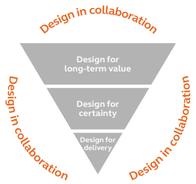
The outcome is a flagship store that has enabled Tiffany & Co. to strengthen its iconic presence on Fifth Avenue, offering a blend of tradition and innovation that reflects the brand's timeless allure.

The project has enhanced customer experience that delivers an elegant, functional and visually stunning retail environment. Furthermore, the store benefits from improved customer flow, integrated digital engagement and boasts additional exclusive exhibition spaces.

The Tiffany & Co. Landmark project illustrates the importance of the architect's capability to **design for delivery**, bringing to life complex design concepts while sensitively renovating a historic structure. Design for delivery requires technical skill, ingenuity and above all, fidelity to the design vision. The completion of the development has redefined Tiffany & Co.'s presence on Fifth Avenue, creating an inviting and modern landmark.

Matt Billerbeck
Global Group Practice Director, Retail





CASE STUDY

Eglinton Crosstown LRT stations and oversite development

Eglinton Crosstown is a 19km-long Light Rail Transit (LRT) system aligned to Eglinton Avenue, one of Toronto's major intercity arterial roads. Arcadis, in a design joint venture with Atkins Réalis, led the overall design program with a team of over 40 consultant firms. At the peak of the development phase, the venture employed over 600 architects, engineers and designers globally.

For the 15 underground stations and 10 surface stops, Arcadis led the system-wide architectural and interior design, urban design and landscape architecture, as well as supported line-wide multidisciplinary engineering and project management.

In addition to enabling high-capacity, easy-to-navigate access to the LRT and supporting efficient operation, a key objective of station development has been to catalyze urban intensification on the line. The aim is to strengthen the Eglinton corridor, fostering civic improvement across a diverse mix of neighborhoods.

Arcadis introduced unique solutions to enhance the passenger experience and ensure seamless transit use. From the clear and uncluttered architectural expression to creating accessible, safe and enjoyable spaces, the project focuses on delivering superior user experience. Stations feature system-wide design principles, utilizing common, recognizable elements such as sculptural glass box entrances with light wells to platform levels. Each location is context-sensitive and designed to harmonize with the streetscape and surrounding uses. Some stations are also designed to accommodate oversite development, requiring early coordination with developers' design teams.

The new line fosters enhanced connectivity and contributes to the city's overall growth. This required extensive collaboration with stakeholders, including municipalities, governing bodies, business improvement areas and resident groups.

Within the delivery team, the design was undertaken in Revit, with Arcadis managing the overall coordination of digital models, including alignment with rail engineering models.

Close collaboration with Metrolinx, the construction joint venture, design partners and the wider supply chain was essential at an early stage to secure support for the station concept. An example of the extent of this integration is the decision to use rectilinear sections for line equipment such as signal and overhead power poles in alignment with the rigorous geometry of the station design.

Once Eglinton LRT opens, it is anticipated that significant regeneration will follow, focused on the major transit station areas. Many new developments are in planning and construction, and the stations will play a key role in knitting these new communities together. Collaboration has been at the heart of the success of the program over its 12 years, ensuring that the masterplan vision is properly realized.

Charlie Hoang
Global Practice Group Director, Transit Facilities

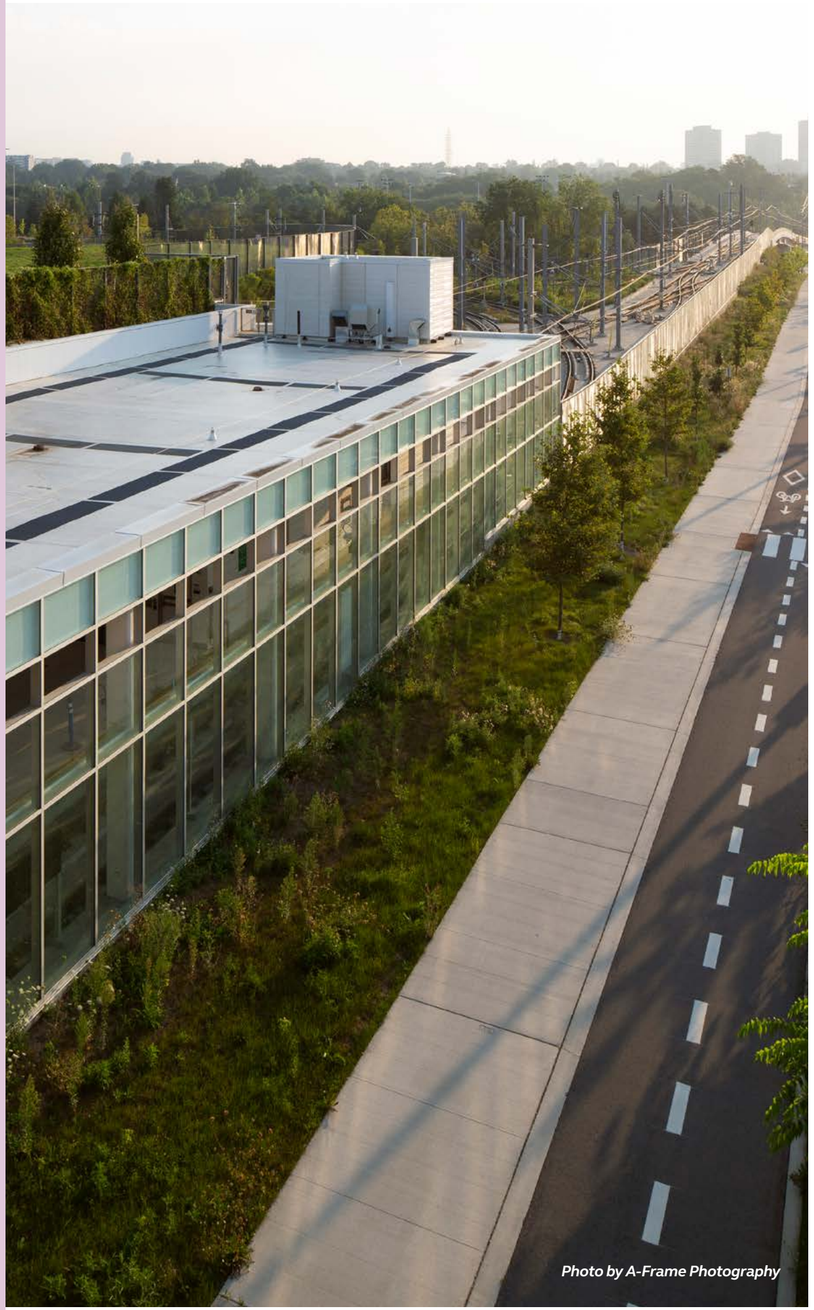


Photo by A-Frame Photography

Design in collaboration

As architects and urban designers, we have a key role in enabling clients to realize their goals, fulfilling the promise of a site and brief. However, development is a collaborative endeavor, and we needed to evolve new models of leadership and teamwork—particularly as technology enables real-time collaboration across disciplines, time zones and contractual boundaries.

As part of a much larger multidisciplinary engineering and consulting practice, our Architecture and Urbanism specialists practice multi-service work as a core principle. We invest in the skills, processes and culture to make this happen, recognizing that blockers to collaboration need to be identified and mitigated, even as enablers are put in place. Technology is one of those key enablers but only if implemented well. Ultimately, leadership drives culture and momentum. As teams grow in complexity, the quality of leadership must rise to meet that challenge. More than ever, leaders are made, not born—and as a skills-driven organization, we're committed to providing opportunities for our people to grow, develop and lead.

Architects have a responsibility to lead the design team with clarity and focus—aligning the brief, the vision, the solution and its coordination. Effective leadership requires example and empathy as much as passion and commitment. In our view, the role of the design leader has already been redefined. It now demands a blend of creative flair, technological know-how, commercial acumen and an understanding of team dynamics. We must build high-performing teams, just as we build high-performing buildings.

Conclusion

Development is a hugely challenging undertaking. High levels of uncertainty triggered by economic and political change have created a tough environment for getting projects off the ground. Our buildings will need to work even harder to meet the needs of their users. They will need to be beautiful, practical, sustainable, adaptable and, above all, viable in order to make the journey from the drawing board to construction and occupation.

In today's market, owners need the full support of their design teams. Viability hurdles mean that each and every aspect of a scheme must be treated as an opportunity to maximize impact. Design teams need to understand the needs of users and occupants and identify the potential in the site, unlocking the value that gets schemes built.

Successful project delivery relies on a broad range of skills and capabilities. Designers use insight, experience and creativity to develop proposals that deliver against all aspects of value. We apply excellent design skills, data, insight and tools to give clients confidence that their proposals represent the best fit to their needs. We also need the scale, capability and commitment to ensure that the project succeeds—delivered in line with the brief, on time and within budget. Above all, designers must provide leadership—creating, advocating for and fulfilling the promise of the client's vision.

Design for impact requires designers to support the client on every step of the journey. We work with our clients to ensure that they can meet their responsibilities and create opportunities to build great spaces that are durable, sustainable and successful.

COUNTRY PROFILES

Europe and the UK

Europe and the UK face many structural economic challenges that have contributed to a slowdown in construction activity over the past year or two. In addition to issues associated with an aging population and high energy costs, the 27 member states of the EU are being encouraged to tighten public spending to reduce deficits. Despite seven rate cuts bringing the ECB base rate down to 2.25%, borrowing costs are still a barrier to development. The EU is a manufacturing powerhouse, and as a result, is vulnerable to the impact of tariffs that could result in slower growth and reduced demand. However, the EU has a mature construction product and equipment supply chain that will help mitigate any impact of retaliatory tariffs, should they be applied.

Germany

Germany's construction industry continued to face significant challenges in 2024, with the sector continuing to be affected by labor and material cost inflation and elevated interest rates, which collectively reduced demand and led to further insolvencies among major developers.

The German economy contracted by 0.2% in 2024, driven by factors including high energy costs, weak exports and elevated interest rates. Following a 0.3% GDP decline in 2023, the German economy has now contracted for two full years. This has not occurred since the early 2000s. The Organisation for Economic Co-operation and Development (OECD) is currently forecasting a modest return to growth of 0.4% for 2025 and 1.1% in 2026.

The German construction sector has been in distress for several years now, and contracted again in 2024. The residential market is the most affected, and there is little sign of improvement, with the number of residential building permits granted in Germany falling to 215,900 in 2024—the lowest level since 2010 and almost 17% down from the previous year. The commercial sector is also under strain, and construction insolvencies rose by 20% year-on-year, sitting 16% above the 10-year average.

Contractors expect conditions to remain challenging over the coming 12 months, with both PMI and Ifo surveys continuing to show heightened levels of concern about new order pipelines. The major bright spot should be economic and social infrastructure. March saw Germany's parliament approve a €1 trillion spending plan by Chancellor Friedrich Merz that includes €500 billion to modernize hospitals, schools, roads and energy networks. The move has been described by economists as a 'fiscal bazooka', with the DIW economic institute suggesting the infrastructure fund alone could raise GDP by more than two percentage points a year from 2026.

Aside from infrastructure, data centers continue to be the big growth sector due to the demand for processing associated with AI and crypto. However, planning restrictions and lack of power supply have caused delays in delivery. In some cases, clients have had to provide additional power feeds and temporary substations to enable first phases to be built. Meanwhile, a slowdown in the sales of electric vehicles both in Germany and abroad has led to a pause on some gigafactory projects, while some semiconductor production facilities have also been put on hold.

> *The large infrastructure projects of power transmission and rail continue to drive the German construction industry. The property sector will be governed by continued strong demand for data centers. Overall, the outlook for the year ahead will be governed by the effect of geopolitical events.*

Poul Syratt
Senior Quantity Surveyor

France

A high-interest rate environment continues to hold back traditional residential and commercial projects, while substantial investment in data centers and AI infrastructure offers new opportunities.

The French economy grew by 1.1% in 2024—the same rate as in 2023—driven by public consumption and investment. However, growth could slow in the next couple of years, with the OECD currently forecasting annual GDP increases of 0.8% for 2025 and 1.0% in 2026. Construction sector output contracted by 2.3% last year, following 0.2% growth in 2023. This downturn was primarily attributed to high interest rates, weakened investor and consumer confidence, and elevated construction material prices. Moving forward, the construction market will be flat as it adjusts to the post-Olympic Games era and current political uncertainty.

Current order book levels remain weak with the residential and commercial sectors likely to struggle further in 2025. Latest data from the National Institute of Statistics and Economic Studies (INSEE) shows the total number of dwelling units authorized in 2024 fell by 12% to 320,300. Given that approvals fell by 24% in 2023, the latest data confirms a continuing slowdown in new residential projects.

The key area of growth is likely to be in the tech sector. A recent AI summit in France saw the government unveil a €109 billion investment plan to enhance France's AI capabilities, including the development of data centers and computing clusters. Opportunities include the UAE's investment of up to €50 billion in a 1GW AI data center as well as Brookfield pledging a €20 billion investment to support the deployment of AI infrastructure across the country.

> *While some construction markets are static post-Olympics, France is counting on the tech/AI sector for growth. Some turmoil from trade wars, and also the US versus China AI progress may impact this, creating significant 'unknowns' in the year ahead.*

Hassen Naifer
Senior Cost Manager, Places

Spain and Portugal

The construction market in Spain and Portugal continues to expand, driven by strong investment in infrastructure, hospitality, residential, data centers and gigafactories.

Boosted by record tourism numbers and strong public investment, the Spanish economy expanded by a healthy 3.2% in 2024, becoming the fastest-growing country in the Eurozone. In Portugal, GDP grew by a still-respectable 1.9%. The OECD is currently forecasting annual GDP growth for Spain of 2.6% for 2025 and 2.1% in 2026, with growth of 2.0% expected in Portugal for both years.

The gap is evidenced by recent Eurostat data that showed Spain's construction production experienced a significant increase of 11.2% year-on-year in December 2024, while Portugal recorded 5.1%—this was the first and fourth highest among the 27 EU member states and compares with an overall fall of 0.8% across the EU bloc in the same period.

In Spain, the surge in renewable energy projects, particularly in solar and wind energy, has been a major growth driver in recent times, alongside increased demand for logistics and data center developments. Portugal has seen a boom in tourism-related construction, with high-end hospitality and residential developments in Lisbon, Porto and the Algarve, attracting significant investment. This could be boosted still further by the award of the FIFA World Cup to Spain, Portugal and Morocco for 2030.

Spain and Portugal remain prime locations for mega-projects, highlighted by gigafactories from the likes of PowerCo and AESC, and data centers including those for Sines and the Zaragoza HUB, coupled with major infrastructure upgrades incentivized by the Spanish government and European frameworks. However, rising demand is putting pressure on labor and materials, leading to higher costs and project delays. To mitigate these, firms are adopting early procurement, modular construction and digital tools like BIM to enhance efficiency.

"Following the emergence of Iberian countries as the perfect destination for mega-projects, 2024 was a stress test for Iberia's construction sector—rising costs, supply chain challenges and labor shortages pushed firms to innovate to keep projects moving. As we enter 2025, a well-prepared industry stands ready for sustained growth.

Emilio Garcia
Head of Cost Management, Iberia

Netherlands

The Dutch economy and the affordability of construction projects are still under pressure. However, an upturn in fortunes for the construction sector is anticipated, driven by an improvement in housing development.

The economy in the Netherlands grew by an annual rate of 0.9% in 2024, which, while modest compared with the 5%+ rises in 2021 and 2022, was an improvement on the 0.1% rise in 2023. Domestic demand was the main driver, with household real disposable incomes rising 4.5% during the year. The OECD is forecasting growth of 1.6% for both this year and next.

However, the Dutch construction market continues to contract, with total production decreasing by 3% in 2024. New build construction projects struggled, with residential output down 5% and non-residential by 11%. Even infrastructure fell by 1.5%. Data from StatLine on construction insolvencies reveals there were 618 last year, a jump of 29% compared to 2023 and the highest since 2015.

The outlook for this year and next is more positive, with Euroconstruct currently forecasting construction sector growth of 1.6% in 2025 and 2.7% in 2026, mainly due to an improvement in housing markets. The number of new home building permits surged by 24% across last year to 67,000, according to Statistics Netherlands (CBS) data, although this was from a historic low in 2023. Other major projects in the pipeline include a planned €6 billion investment at Schipol Airport, to be delivered over the next five years.

While there is still an appetite for mega-projects in the Netherlands, affordability and financial viability continue to delay project starts. Regulations, including restrictions on development related to nitrogen neutrality, also continue to hinder progress.

"Events of the past few years and recent developments have shown how insight into the risks, costs and cost developments of construction projects is essential to keep them affordable and feasible.

Ted Peek
Head Commerce and Business Development, Cost and Data Management

Belgium

The construction sector has struggled in recent years and continues to face several challenges that must be addressed to fully recover, but small signs of improvement are beginning to emerge.

Belgium's GDP growth was 1.1% in 2024, aided by a 7% rise in public investment. However, growth was the lowest in four years, with the latest OECD projections suggesting little change this year and a 1.5% rise in 2026.

Another challenging year for the Belgian construction sector in 2024 saw output decline by 1.0% in the first 11 months of the year, compared to the same period in 2023, including a 2.8% drop in the building sector. This year is unlikely to see much improvement. Total building permits issued from January to November 2024 were at historic lows, down almost 11% on 2023 levels, with new residential building permits suffering a 15% fall. The decline was blamed on a range of factors, including continued high material costs, expensive labor and strict energy performance requirements. The glimmer of hope is that the rate of change became less negative in the second half of the year. This positive trend is expected to continue, hinting at a turnaround from the end of 2025.

In the infrastructure sector, priorities of the new government have shifted toward investment in renovation and renewal of existing assets, resulting in fewer new projects. Upgrade schemes that are brought to market tend to be larger ones, let as variants of PPP contracts, to alleviate budgetary pressure on the government.

Another barrier to recovery is a very tight labor market. In 2024, 2,619 companies in the sector were declared bankrupt, an increase of 17% compared to 2023. This continues a rising rate of bankruptcies from 2020, with the number of construction companies active on the market declining faster than before.

"Once the dust settles on the new-look government, the focus will return to public sector projects, for which a lot of investment is required. However, limited fiscal headroom could further delay the go-ahead for some projects.

Ann Van Melkebeek
Senior Cost Leader

Ireland

2025 is set to be a positive year for the Irish construction sector, with a strong domestic economy laying the foundations for construction activity to recover after a disappointing 2024.

The Republic of Ireland's domestic economy grew by 2.7% in 2024, according to official figures using the modified domestic demand (MDD) method. By contrast, Irish GDP, which is heavily dependent on the activities of multinational companies, grew by 1.2% last year. The Central Bank of Ireland has downgraded its MDD forecast to 2.7% for 2025, while GDP forecasts were recently trimmed to 4.0% in both 2025 and 2026, reflecting softer investment and export growth.

Construction industry sentiment is mixed, with recent surveys highlighting contraction in output in the first two months of this year while contractors are anticipating growth in workload and employment through 2025. Aside from an accelerating National Development Programme, where €2-3 billion of public sector work is due to proceed to site, 2025 should also see an improvement in the residential construction market, with some forecasts predicting a 14% increase in housing completions to 32,500 this year.

For the sector, challenges such as potential overheating due to low unemployment and strong fiscal stimulus, as well as external pressures from shifting global trade policies, remain. Careful strategic planning and policy implementation will be essential to maintain sustainable growth in the sector.

Given that Ireland runs a very large surplus with the United States based on trading by US companies, some of the tariffs proposed by the new US administration could have a very negative effect on Ireland's current trading model, including a slowdown in foreign direct investment inflows and a reduction in corporation tax receipts.

However, to date, carve-outs for tariffs on both semiconductors and pharmaceutical products have been announced, providing a short-term reprieve for exports from Ireland.

While about €15 billion has been invested in building data center facilities in Ireland, a recent study found that a future construction pipeline of €8-10 billion is at risk due to energy constraints and planning delays—with such facilities consuming over 20% of the national electricity supply. However, where projects are using alternative power supplies, such as large engine gas turbines, they bring their own operational and logistical challenges.

"The Irish construction market is poised for recovery in 2025 following a challenging previous twelve months, particularly in the housing sector. The government's National Development Programme is set to accelerate, with significant housing and hospital projects progressing in procurement.

Fintan Kenny
Senior Commercial Director

UK

The UK's construction sector contraction has ended, with marginal growth achieved in the second half of 2024. While infrastructure investment is set to rise, the outlook for other market segments remains uncertain, with a weakening future pipeline posing a serious concern.

After a strong start to the year, the UK economy flatlined for the second half of 2024, resulting in overall GDP growth of 1.1% last year, up from 0.3% in 2023. Growth prospects for 2025 are dimmed by subdued business sentiment and steadily rising inflation, which is expected to reach 3.7% by the fourth quarter. Both the Bank of England and the OECD have recently downgraded their annual economic growth forecasts for 2025 and 2026, with the latter now forecasting 1.4% for this year and 1.2% the next.

Marginal growth in the UK construction sector was achieved in the second half of 2024, ending several quarters of contraction. However, given low industry confidence, higher for longer financing costs and a thinner forward pipeline, no meaningful recovery is expected before the end of 2025. The Construction Products Association recently downgraded its sector forecast for 2025 but still expects a gradual recovery as the year progresses, with output expected to increase by 1.9% in 2025 and 3.7% in 2026.

Prospects for the building and infrastructure sectors in the year ahead are sharply different. Residential construction will remain slow to recover, and the commercial development market is currently slow-moving, while growth sectors such as purpose-built student accommodation face increasing delay and delivery risk. In contrast, big expansion programs in energy and water network infrastructure should see a surge in output. The UK also continues to be a leading destination for AI and data center infrastructure investment with the total projected over the next five to ten years amounting to over £45 billion.

> *"The commercial and residential recovery remains weak due to low confidence and high finance costs. Renewed investor confidence and strategic government action are required before we start to see a sustained recovery.*

Christian Betts
Senior Commercial Director

COUNTRY PROFILES

Asia Pacific

The Asia-Pacific region is home to some of the fastest-growing economies including China, India and Indonesia. Despite robust growth in domestic consumption, capital investment in infrastructure and real estate is still facing headwinds related to high finance costs, subdued demand, and, in some cases, oversupply. Forecast growth rates could be vulnerable to the impact of trade barriers, but there is much less likely to be an impact on the cost base of regional construction supply chains.

Australia

After a subdued 2024, the Australian construction market is expected to grow from mid-2025, boosted by large-scale mixed-use precinct projects in NSW, Victoria and Queensland, together with procurement on Olympic venues.

Australia saw its slowest economic growth in 32 years in 2024, excluding the pandemic-effected 2020, with GDP rising by just 1.1% on an annual basis, amid sticky inflation and elevated interest rates, which so far have only been cut by 0.25%. A gradual recovery is forecast, with the OECD recently projecting that GDP will rise by 1.9% this year and 1.8% in 2026. The Australian construction market has been subdued in recent times, with vacancies falling and unemployment rising. However, there are growing signs that the workload will soon start to pick up, paving the way for a construction recovery.

Data centers remain one of the stronger growth markets, but some clients are now beginning to focus on alternative locations such as India and consequently are reducing their pipeline in Australia.

However, large-scale mixed-use residential and commercial precincts are on the agenda. Precincts connected with the Suburban Rail Loop project in Victoria, Integrated Station Developments on Sydney Metro West and the Waterloo Precinct in Sydney, as well as Olympic venues and precincts in Queensland, will drive much of the market over the next few years.

One of the most unexpected trends in the market is a significant decline in productivity, with construction workers averaging only 2.8 days of productive work per week, down by over 50% from the pre-pandemic norm of a six-day work week. Despite having access to a larger workforce in 2023 compared to 2018, the industry delivered fewer total hours, creating headaches for clients and contractors alike.

The impact of any tariff trade war is difficult to predict. Tariffs may lower investor confidence, although most construction projects are driven by public sector/government investment. The private sector is much more subdued as clients try to reconcile the cost versus value challenge. Any negative impact on sentiment will further delay recovery.

> *One of the biggest challenges in 2024 was the steep and continued decline in construction productivity, with workers averaging less than three days of productive work a week. Tackling these productivity issues head-on will be critical to getting projects moving and meeting ambitious housing and infrastructure targets in 2025.*

Matthew Mackey
National Service Lead,
Cost and Commercial Management

> *Chinese real estate is transforming. The construction of affordable housing and the renovation and upgrading of existing buildings are becoming an increasing focus for developers, underlined by a continuing promotion of green credentials.*

Joe Chan
Head of Cost and Commercial Management, Greater China

Mainland China and Hong Kong

Both mainland China and Hong Kong saw growth in the construction sector in 2024, but the rates were diminished compared with previous years, with output mainly driven by government-funded activity. This trend is set to continue into 2025.

China's economy officially saw growth of 5.0% in 2024, boosted by stronger exports and industrial output, combined with stimulus measures such as reduced lending rates. Officials set an ambitious 2025 GDP growth target of 'around 5%' in March, similar to the targets from the previous two years. However, meeting the target will not be easy, with China's mounting trade tensions with the US adding to other pressures, such as the long-standing property crisis that continues to weigh on domestic consumption.

Hong Kong saw moderate real GDP growth of 2.5% in 2024, slightly below the 3.2% rate in 2023, mainly boosted by a return to growth in goods exports and a continued rise in service exports. The government forecasts that GDP will rise by 2% to 3% in real terms in 2025.

China's construction sector expanded by 3.9% in 2024 which, although positive, continued the year-on-year decline in rates of sector activity in recent years. The private sector residential market remains lackluster, with rates of urbanization slowing considerably and many developers struggling to find work for their builders once existing projects are completed. Chinese officials have encouraged local governments to purchase unsold homes and fund the completion of unfinished ones in an effort to shore up the market and encourage buyers. Upgrades and functional transformation of real estate assets continue to be a growth area, driven by demand for more sustainable, smarter buildings. We have even seen a commercial project undergoing renovation and upgrading—involving demolition and modifications—immediately after its initial completion, highlighting a change in focus among Chinese real estate developers. Construction of gigafactories in 2025, such as Tesla's Shanghai Energy Storage Gigafactory, and the Hainan Satellite Gigafactory, appears to be proceeding as planned, with no major obstacles reported.

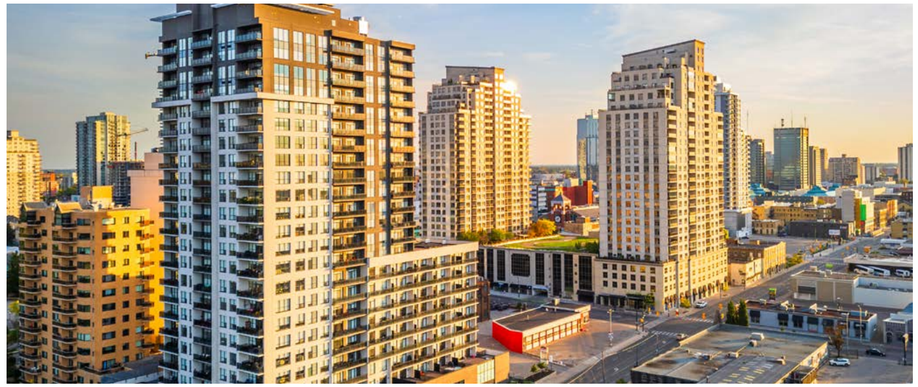
Overall, construction activity in Hong Kong maintained its growth momentum in 2024, driven primarily by contributions from the public sector. The downturn in private sector construction activity observed at the end of 2024 looks set to continue this year, with the outlook appearing rather bleak, especially in commercial property. This could leave the public sector as the sole driver of growth in 2025. The government continues its plans to speed up the supply of public housing units in coming years to reduce waiting times. Moreover, the approved Capital Works Reserve Fund in 2024 is 43% higher than the funding approved in 2023 and 73% more than that for 2022. The government will also focus resources to develop the Northern Metropolis, a project that is crucial to the social and economic development of Hong Kong.

Given China's domestic construction market is relatively self-sufficient, any tariffs imposed by the US government are unlikely to have much direct impact on activity. This is similar to Hong Kong, where construction materials are mainly sourced from mainland China and Asia. However, tariffs imposed by the Chinese government on US goods could lead to inflation, potentially driving up labor costs.

COUNTRY PROFILES

North America

The US and Canada have historically had a highly integrated economy recently facilitated by the United States-Mexico-Canada Agreement. The unpicking of this long-standing economic bloc is likely to have profound and unpredictable implications, and as a result, current growth projections could be subject to substantial revision. Unlike other markets included in this review, the US and Canada have highly integrated construction material supply chains, including cross-border manufacturing. As a result, markets in Canada and the US are most exposed to price movements related directly to tariffs and to changes in trade flows.



Canada

While Canada's construction industry has struggled in the last couple of years, due mainly to a slowdown in the residential building sector, the outlook is more positive in 2025, with a return to growth driven by increased investments in infrastructure and energy projects.

Canada's economy grew by 1.5% in 2024, but any positive outlook for 2025 is increasingly at risk from the tariff disputes with the US. The Bank of Canada estimates investment would decline by 12% and exports would decrease by 8.5% after one full year of a trade war with the US, and that Canadian GDP growth would decrease by 3% over two years.

Canada's construction industry contracted by 1.8% in real terms in 2024, mostly due to a further slowdown in the residential construction sector, where the impact of elevated interest rates, high construction costs and a shortage of skilled labor have been widely felt. There were some positives—interest rates have been cut seven times to 2.75%, and there remains continued demand for industrial construction, driven by manufacturing, processing and assembly plants, with planned new EV battery units at Windsor in Ontario and at Bécancour in Quebec being examples.

Infrastructure projects, especially in transportation and renewable energy, have received substantial government support and will be a key driver of construction growth in the coming years. A recent notable project is the planned 1,000km high-speed rail line between Toronto and Quebec City, described as Canada's largest-ever infrastructure project.

Overall, the construction sector outlook for 2025 is more positive, with Statistics Canada data indicating that residential construction rose at its fastest rate in more than three years in the fourth quarter of 2024, providing promise of further momentum in 2025, given that the total value of building permits, at constant prices, increased 3.7% last year, albeit from the nadir of 2023.

However, any growth potential could be tempered by a couple of headwinds, namely the prospect of potential delays to project approvals until the dust settles after April's election, plus the ongoing tariff trade dispute with the US. The Canadian Construction Association suggests the latter will present a 'significant risk' for the domestic construction industry, with the potential for increased costs for homebuilding and infrastructure, disruption to supply chains, and a weakening of economic development and productivity.

> *Despite uncertainty from tariffs and the upcoming election, there is a huge pipeline of work, and a large amount of infrastructure spending has already been committed. This should hopefully lead to a return to growth across the construction sector in 2025 and beyond.*

Catherine Bruen
Business Unit Leader,
Cost and Commercial Management

USA

The construction market is static in the US at the moment. Most projects still seem to be progressing, albeit slowly, although nervousness about the current tariff regime under the new administration is holding some projects back as uncertainty reigns.

The US economy grew by 2.8% in 2024, driven by increases in consumer spending, investment, government spending and exports. However, the Federal Reserve recently slashed its growth forecast from 2.1% to 1.7% for 2025, acknowledging that a good part of the change in outlook had been impacted by the Trump administration's recent tariffs on US trading partners.

Construction has been growing at around 4% per annum and was boosted by public sector work. By contrast, private sector activity, which includes residential, accounts for about 75% of the market and did see growth, but at slower rates. However, the outlook for 2025 is much less certain, particularly for public sector construction, where the new administration is likely to review its capital spending priorities, leading to a delay in approvals at best, and the potential for the cancellation of some other programs.

Planning for new projects is still quite active, but construction starts are lagging due to economic concerns. Data from the NAHB shows housing starts totaled 1.36 million in 2024, a 3.9% decline from the 1.42 million total in 2023, driven by a 25% annual drop-off in starts for multifamily developments.

Encouragingly, there are plenty of mega-projects in the pipeline, including recent announcements by TSMC and Nvidia. While the rate of investment spend may have dropped slightly and schedules may be a little less aggressive, overall, the long-range plans remain intact.

The main problem in the US is that these projects are difficult to resource. Clients have concluded that capacity is a limiting factor for key trades and materials, with premium costs having an impact on the financial viability of the project.

Tariffs are likely to impact the US construction market, with the imposition of a 25% tariff on imported steel potentially having a significant impact on the economics of storage sheds and other steel-framed buildings as well as MEP systems if followed through. In our Winter 2025 US Market View, we highlight that steel frame costs are likely to increase by 7-10%—a significant hike for sectors sensitive to demand and increased costs of funding.

> *In the current climate, aligning expectations around priorities, scope, quality and time with a realistic, achievable and affordable budget at the beginning of the project is key to success. It must be monitored closely and reconsidered to respond quickly to changing market conditions or influences.*

David Hudd
National Discipline Leader,
Cost and Commercial Management

METHODOLOGY

The **Arcadis International Construction Costs Index** covers 100 cities. The index is based on a survey of construction costs which covers 20 building functions. This data is supplemented by a review of market conditions in each city combined with the professional judgment of a global network of experts.

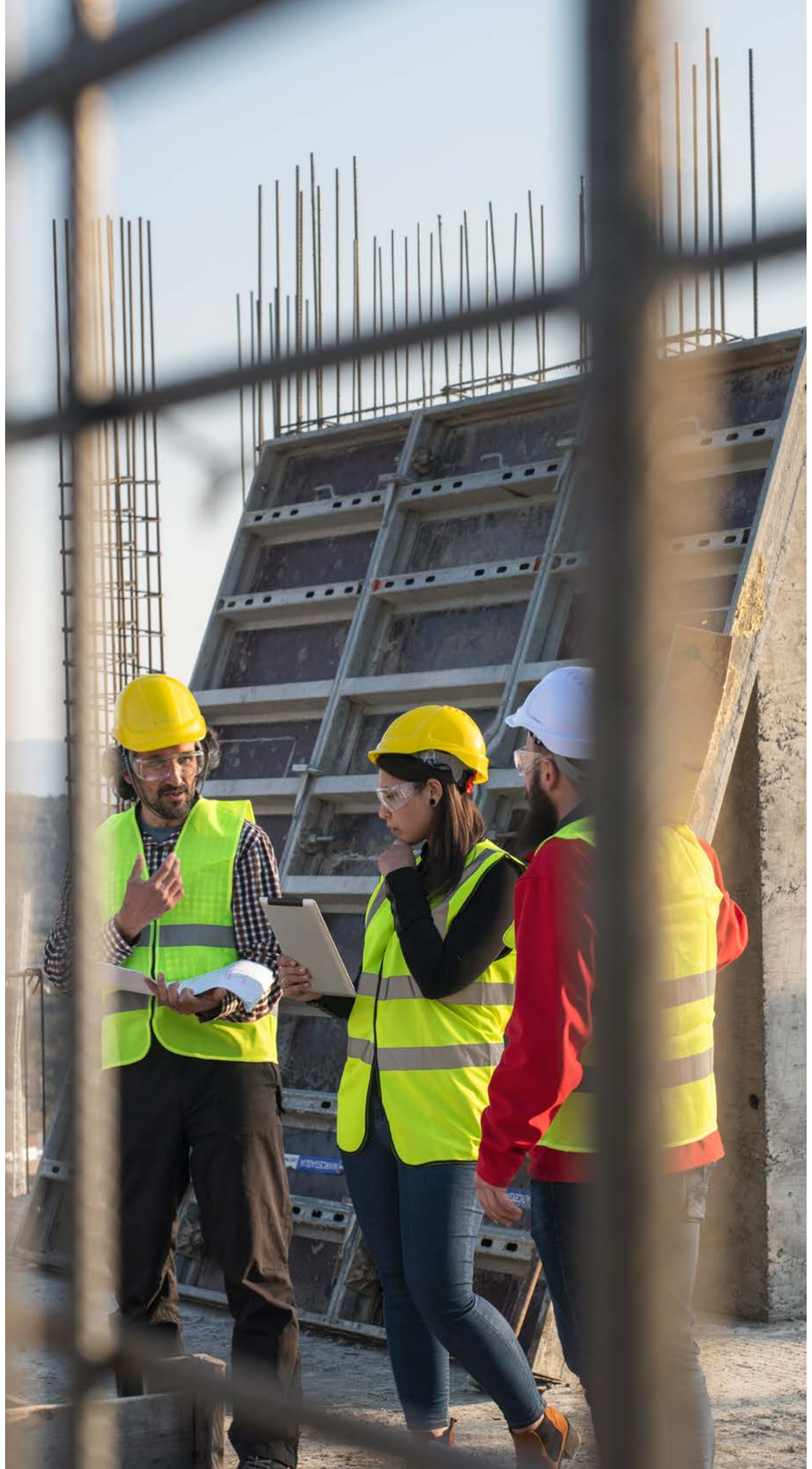
We collect indicative cost ranges for each building function for each city. The low and high range costs for each building type are converted into US dollars. They are normalized and indexed against the cost range for equivalent buildings in Amsterdam, where Amsterdam = 100. We calculate an index range for each city comprising the low and high values for each of the 20 building types.

The data was collected in the first quarter of 2025.

Costs used to calculate the index are based on buildings delivered to local specification standards, meeting both functional requirements and quality expectations. As a result, the index compares the relative costs of delivering the same building functions in a city. It also reflects the different levels of quality expectation reflected in a specification.

Costs covered in the index exclude land, demolitions, external works and services, and risk allowances. This means that major sources of variability are removed from the index. Similarly, we exclude costs of professional fees and local sales taxes.

The index does not take into account purchasing power parity. The construction cost data used in the index is current as of first quarter 2025. The exchange rates used to calculate the index were current on 11 April 2025.



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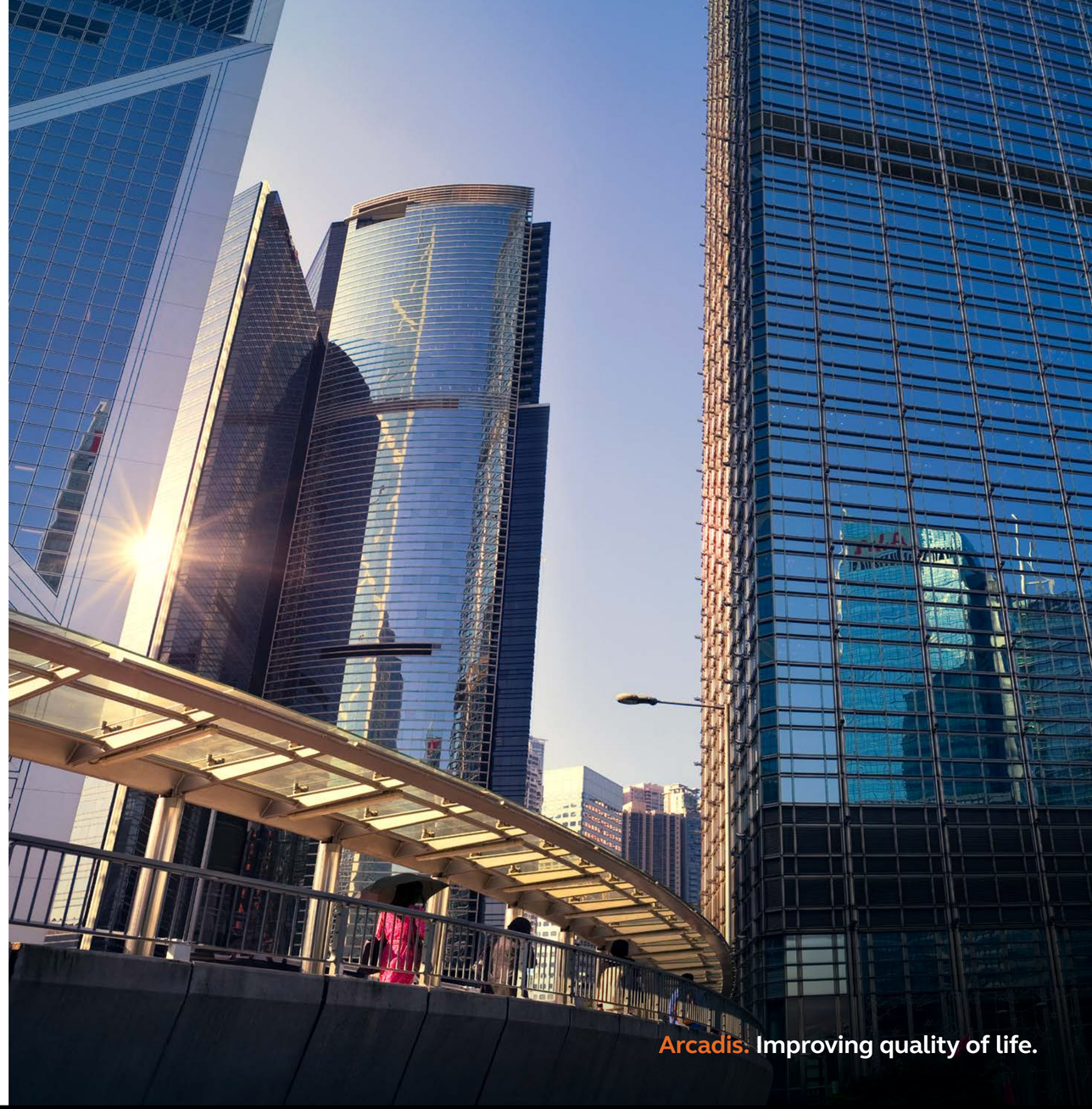

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