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SPOTLIGHT
Savills Research

World Research - September 2021

Global Living

(PART 2)

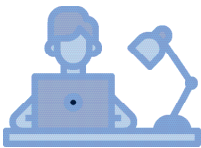


Global migration, student mobility
and a spotlight on embodied carbon

Report highlights



International and domestic migration, temporarily limited by the pandemic, is forecast to return to pre-pandemic levels by 2024, with smaller cities likely to see increased net migration figures.



Continued hybrid working and the quest for more living space presents opportunities for growth in suburban operational real estate in many countries.



Enrolment in higher education usually rises during times of economic stress. International student numbers are expected to return to growth as travel restrictions lift.



Innovative solutions, such as modern methods of construction and repurposing existing structures, can lower the embodied carbon of operational real estate, helping to make the sector more ESG compliant.

Global migration and mobility

The movement of people for work and study has been slowed by the pandemic, but only temporarily

Implications for operational real estate

The migration of large numbers of people for work and study across the globe has fuelled the demand for professionally managed residential accommodation over the last decade driving the operational real estate sector to new heights.

The Covid-19 pandemic paused some of that flow of people, but only temporarily. Cities have started to bounce back from lockdowns, in particular smaller, dynamic European cities. Domestic students have filled the gap left by international ones in many markets.

Looking ahead, forecasts suggest that global net

migration will return to pre-pandemic levels by 2024. This will in turn further fuel demand for operational residential product.

Climate change, perhaps the greatest challenge facing us all, is another factor that will shape the sector in the years to come. With embodied carbon accounting for 11% of all global carbon emissions (rising to 40% when factoring in operational carbon), sustainable methods of construction and redevelopment will be key as new, more sustainable product is built to meet rising tenant demand.



Migration trends

Migration of people between cities for work and study is a key driver of residential rental markets of all types. The Covid-19 pandemic, however, has had a major impact on these trends.

In the United States, approved immigrant visas plummeted nearly 50% from half a million in 2019 to just over 240,000 in 2020. Australia has seen a decline of over 70% as a result of pandemic related border closures. While immigration in Germany, already declining since 2015, was down 26% in 2020 on 2019 levels.

This has been a factor in slowing prime residential rental markets. [Savills Prime World Cities rental index](#) recorded an average increase of 0.5% in the first half of 2021. This follows a

fall of 1.8% through 2020 as global restrictions on travel reduced demand, due in part to the absence of corporate relocations. Kuala Lumpur, Hong Kong and New York were particularly impacted and saw prime rents decline by more than 4% in the first half of 2021 as travel restrictions limited the number of international tenants. Madrid, Paris and Amsterdam also recorded rent falls over the period.

By contrast, cities such as Miami have benefitted from domestic migration to sunbelt destinations, and so have seen overall rent increases.

Rental collection rates remain high. In the United States, multifamily housing rent collection for June 2021 stood at 95.1% according to NMHC, continuing the trend of high rent collection despite the pandemic.

The path to recovery

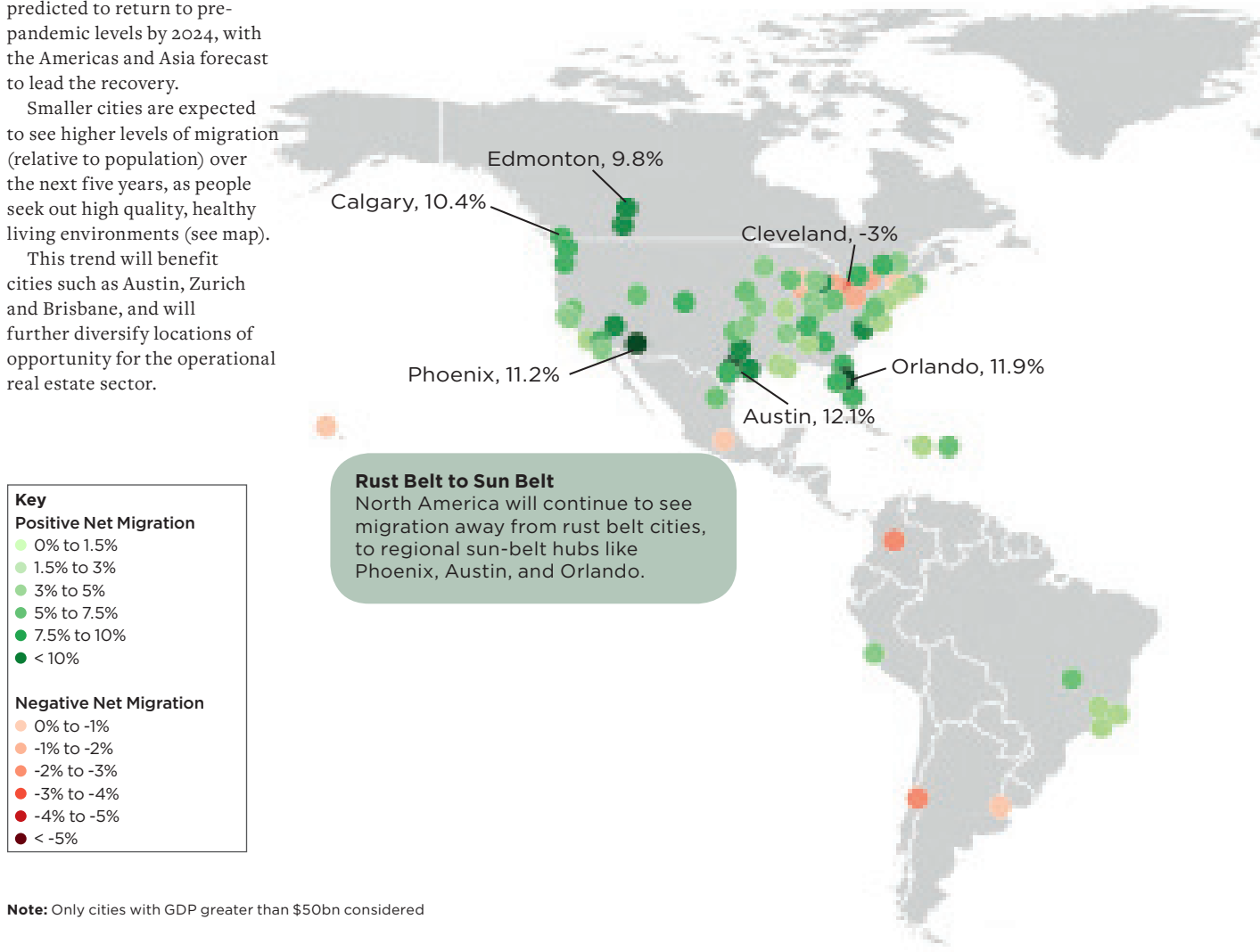
International migration is predicted to return to pre-pandemic levels by 2024

International migration is predicted to return to pre-pandemic levels by 2024, with the Americas and Asia forecast to lead the recovery.

Smaller cities are expected to see higher levels of migration (relative to population) over the next five years, as people seek out high quality, healthy living environments (see map).

This trend will benefit cities such as Austin, Zurich and Brisbane, and will further diversify locations of opportunity for the operational real estate sector.

Net migration from 2021-2026 as a percentage of total 2021 population

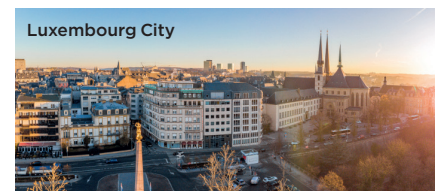
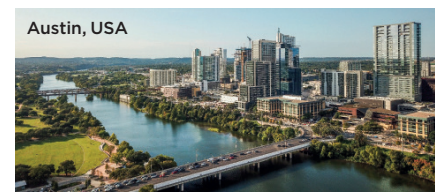


Cities with highest forecast net migration by region

Net migration 2021-2026 as a % of total 2021 population

Americas	
Austin, USA	12.1%
Orlando, USA	11.9%
Phoenix, USA	11.2%
Calgary, Canada	10.4%
Edmonton, Canada	9.8%
Charlotte, USA	9.3%
Houston, USA	9.2%
Las Vegas, USA	9.1%
Raleigh, USA	8.4%
Dallas, USA	8.2%

Europe	
Luxembourg City, Luxembourg	10.0%
Zurich, Switzerland	5.9%
Geneva, Switzerland	5.8%
Gothenburg, Sweden	5.7%
Stockholm, Sweden	5.3%
Budapest, Hungary	4.6%
Vienna, Austria	4.5%
Prague, Czech Republic	4.0%
Basel, Switzerland	3.9%
Bordeaux, France	3.7%



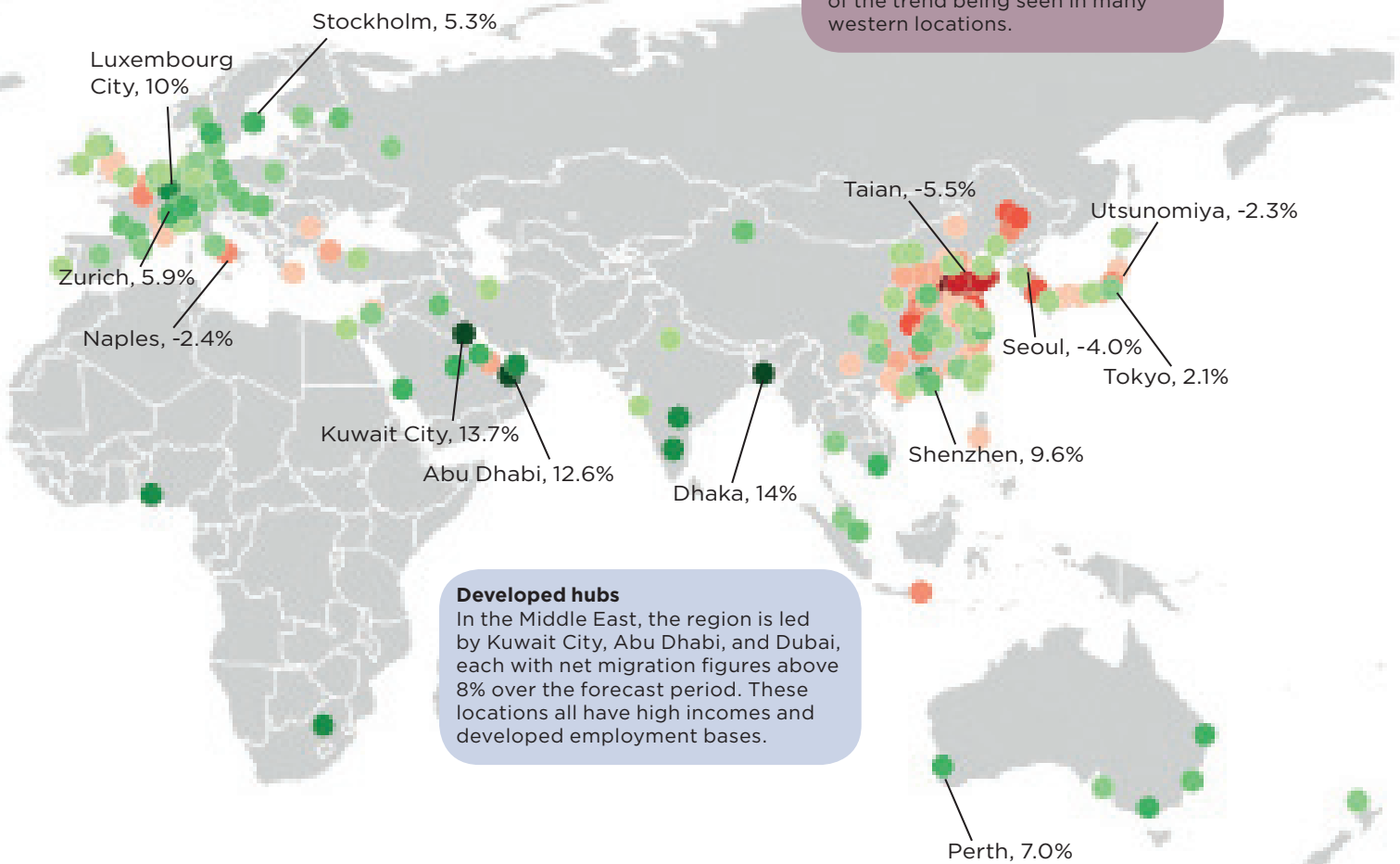
Note: Only cities with GDP greater than \$50bn considered

Flight to quality (of life)

Regional cities such as Luxembourg City, Gothenburg, Stockholm, Geneva, and Zurich are leading Europe with high net migration and high quality of life scores.

Opposites attract

Cities in Asia Pacific are forecast to see increasing concentrations of migration into regional and national hubs from smaller cities, the opposite of the trend being seen in many western locations.



Developed hubs

In the Middle East, the region is led by Kuwait City, Abu Dhabi, and Dubai, each with net migration figures above 8% over the forecast period. These locations all have high incomes and developed employment bases.

Source Savills Research using Oxford Economics

Middle East

Kuwait City, Kuwait	13.7%
Abu Dhabi, UAE	12.6%
Dubai, UAE	8.9%
Riyadh, Saudi Arabia	6.7%
Dammam, Saudi Arabia	5.8%

Asia Pacific

Dhaka, Bangladesh	14.0%
Shenzhen, China	9.6%
Bengaluru, India	9.0%
Hyderabad, India	8.6%
Ho Chi Minh City, Vietnam	7.5%
Hangzhou, Zhejiang, China	7.1%
Perth, Australia	7.0%
Brisbane, Australia	6.7%
Guangzhou, Guangdong, China	6.6%
Melbourne, Australia	6.3%



Source Savills Research using Oxford Economics



Travel within Manchester and Vienna has returned to near pre-pandemic levels

Cities adapting to the new normal

The pandemic has also accelerated change in how we use cities

The pandemic has also accelerated change in how we use cities. The rise in remote working allowed workers to leave cities in search of more space, but as we enter a 'new normal', some workers are beginning to return.

Smaller cities, by global standards, are benefitting. Citymapper mobility data shows that travel within Manchester and Vienna has already returned to more than 90% of pre-pandemic levels (see chart, right).

By contrast, major global hubs such as New York, Hong Kong and Singapore have only seen mobility return to around 60% of pre-pandemic levels.

[Savills Hybrid Working Index](#) examines the factors which may influence the future balance between office and home working, and finds that locations with larger homes, longer commutes, and faster broadband speeds such as Los Angeles, Madrid, and London could make the shift to hybrid working more quickly.

Hybrid working is here to stay in some form, and this only puts greater importance on the home, particularly having extra space to work efficiently. However the office isn't going to go away either, meaning that location factors still matter in selecting residential product.

Residents will still value additional space, but it is likely that they will also desire to be within reasonable commuting distance of city centres for the days they choose to work in the office.

Opportunity in the suburbs

The race for space and reassessment of home/life balance comes at a time when the oldest millennials are turning 40 and starting families in larger numbers, many moving out of cities for the first time. This generation, which is more accustomed to renting and the flexibility it brings, is fuelling demand for single family rental homes in the suburbs – particularly in North America and Europe.

Historical investor activity in the global multifamily or built to rent sector has focussed on blocks of apartments, though there is now an increase in activity for single family product, as well.

In the wake of the Global Financial Crisis, institutional investors began buying distressed housing stock and converting it into rental properties on the private market, particularly in the US. There is also an emerging trend of purpose-built single family rental housing in both the US and UK. In August 2021, TPG Real Estate Partners and Gatehouse Bank launched a UK single family BTR joint venture. It will focus on new build single family homes for private rental with the capacity to build an investment portfolio with a total value in excess of £500 million.

Travel within city as a % of pre-pandemic levels

City	% of City Moving
Istanbul	103%
Manchester	96%
Vienna	95%
Birmingham	89%
Stockholm	84%
Copenhagen	81%
Lisbon	73%
Barcelona	72%
Paris	69%
Philadelphia	68%
Singapore	66%
London	66%
Lyon	65%
St. Petersburg	65%
Brussels	64%
Amsterdam	64%
Hong Kong	62%
Montréal	61%
Moscow	60%
New York City	60%
Chicago	57%
Boston	53%
Rome	51%
Madrid	50%
Washington DC	47%
Toronto	43%
Los Angeles	40%
Vancouver	37%
São Paulo	35%
Seattle	33%
Mexico City	31%
San Francisco	31%
Milan	28%
Seoul	24%
Melbourne	10%
Sydney	9%

Source Savills Research using Citymapper (as at August 2021)



University applications in the UK for courses starting in autumn 2021 increased by 11.6% for domestic applicants

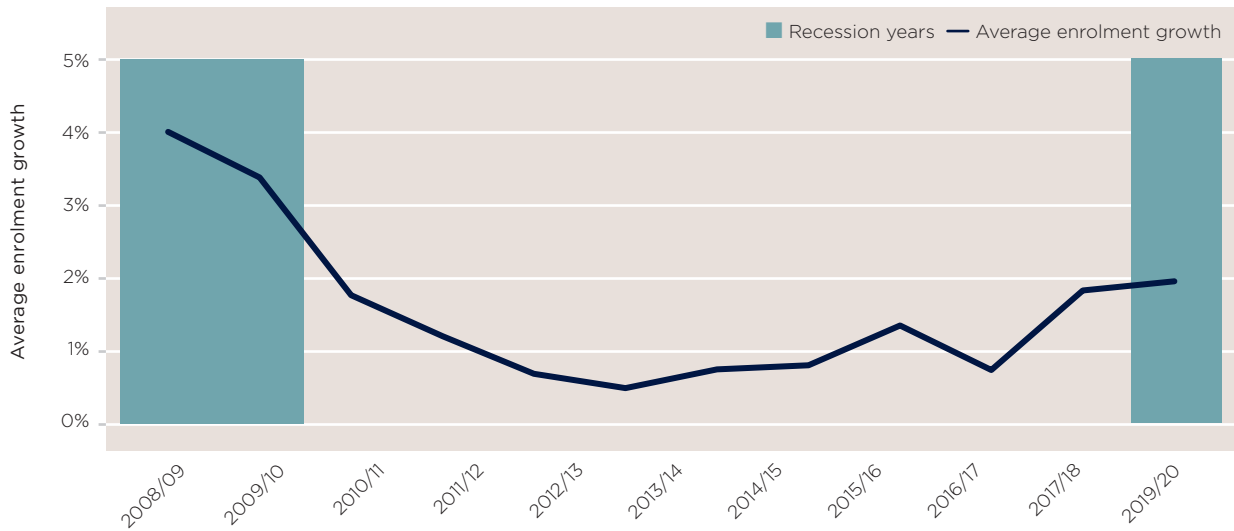
Staying closer to home

Established trends in student mobility have been disrupted by the pandemic, with domestic applications increasing significantly in 2021

More than 220 million students globally have been affected by Covid-19 in the 2019-2020 and 2020-2021 academic years, according to a report by the European Commission. From courses moving online to students scrambling to return home, the pandemic brought significant change to global higher education.

In previous economic downturns, higher education enrolment has proved to be counter-cyclical. As workers are out of employment, they tend to turn to education to upskill, ready for when labour market conditions become more favourable (see chart below).

Student enrolment and global recession years



Source Savills Research using U.K Higher Education Statistics Agency, German Federal Statistical Office, Statistics Netherlands, US Institute of Education Services, Japanese Ministry of Education, Culture, Sports & Technology, China National Bureau of Statistics, Korean Educational Statistics Service

Note: Selected countries include UK, Germany, Netherlands, US, Japan, China, South Korea

This trend is playing out again, at least among domestic students. University applications in the UK for courses starting in autumn 2021, increased by 11.6% for domestic applicants. Common App in the United States had received 6,060,037 first-year applications to member institutions by March 2021, an 11% increase over the 2019-20 total through the same date. In Germany for the winter term of the 2020/21 academic year, the number of domestic first term bachelors and master's students rose by 2% to 389,200, according to the German Statistical Office.

While domestic enrolment has already rebounded in many countries, international student enrolment has decreased in the near term. At the start of the 2020-2021 academic year, the number of international students dropped by 20% in Germany and by 16% in the US, with the drop in new student enrolments at 43%. In Australia, strict travel restrictions saw applications for student visas dropped by 80-90%.

These declines represent stores of pent-up demand that will manifest once restrictions ease, and it is likely that international student numbers will recover quickly. In fact,

in the United States student visa numbers have begun to return to pre-pandemic levels as visa processing restarts after pandemic-induced halts and delays. In April 2021, visa processing was 80 times higher than in April 2020, and the backlog of applicants is beginning to be cleared.

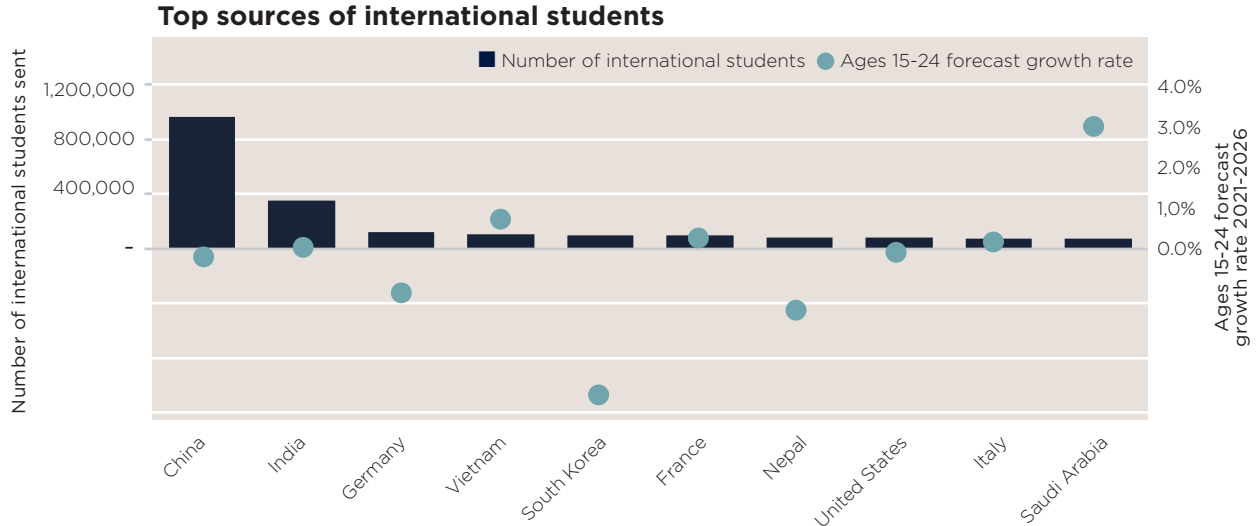
Looking further ahead, China and India, the top two markets globally for sending students abroad, are forecast to see declines in their young populations (those aged 15-24). However, rising levels of household wealth will offset this, enabling more students to travel abroad for their education. Between 2021 and 2026, the number of households earning above \$70,000 per year is forecast to grow by an average of 13% annually in China and 24% annually in India.

High population growth and forecast GDP growth in locations such as Vietnam and Saudi Arabia also provide significant potential for more young people to seek education abroad. Top destination markets for these countries, such as the US and UK, along with Australia, Japan, and Canada can look to benefit by attracting rising numbers of international students from these countries.



40,000

The number of places that will be offered on the UK's new 'Turing Scheme'



Source Savills Research using UNESCO and Oxford Economics

Europe and the Erasmus+ programme

A significant driver of student mobility in Europe is the Erasmus+ programme. About 10 million individuals, including students, professors, and trainers in all sectors, are expected to participate in mobility activities abroad between 2021 and 2027 according to the European Commission.

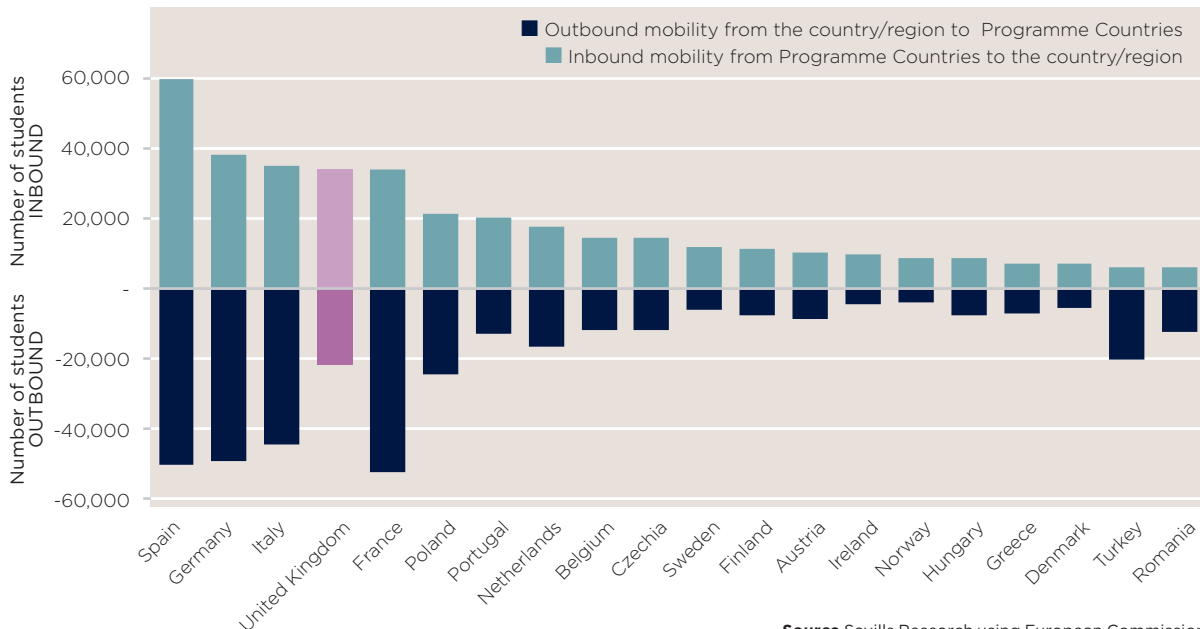
Based on the latest available data, in 2018, 444,133 total students participated in the Erasmus+ programme and 21,760 UK students participated. Spain, Germany, Italy and the UK were the top four destinations for students.

The UK left the Erasmus+ scheme in 2020, and created the 'Turing Scheme' as a replacement, offering 40,000 placements for British students though no reciprocal funding has been included for inbound placements.

The UK was historically the fourth largest destination for Erasmus+ students; however, the UK was only the seventh biggest source of Erasmus+ students (see chart below), so for European universities, the loss of UK students will likely be less than the number of European students they will gain.

For those who would have gone to the UK to study, they may now be looking for programmes taught in English elsewhere to replace the experiences and language exposures they would have had in the UK. European countries with the highest number of English Taught Bachelor's (ETBs) that look set to benefit the most from the UK's withdrawal from the Erasmus programme are The Netherlands, Spain, and Germany, each with over 200 ETBs. This in turn will only further underpin demand for student accommodation in these destinations.

Erasmus+ programme outbound and inbound mobility by country Top 20



Source Savills Research using European Commission



Embodied carbon in the built environment contributes 11% of global carbon emissions annually

Reducing the impact of construction

How do developers reconcile the environmental impact of building homes with the societal need to house people? The key may lie in understanding and minimising a building's embodied carbon

From the ground up

Carbon emissions start from ground-breaking on a site, and continue through manufacturing materials, transporting and assembling the building on-site. These emissions become the embodied carbon of the project and, unlike operational emissions, they cannot be mitigated at other points in the lifetime of a building.

Modern Methods of Construction (MMC) can help to reduce the carbon impact of construction. Approximately 20-30% of the materials in traditional new-build construction are wasted. With MMC, however, off-site construction and optimised production methods lower the waste to less than 1% of the total materials, drastically reducing the embodied carbon of a project. MMC is especially well suited to large operational residential projects such as apartment buildings, student housing and co-living schemes.

Setting the standard

Construction process emissions aren't the only considerations

for minimising the amount of carbon a building emits. The standard that a project is built to also plays a key role in reducing the operational carbon. Another consideration is building a structure that will be easy to repurpose to another use if needed. Retail or disused industrial facilities are asset types that are ripe for repurposing.

If a building can be sustainably refurbished or repurposed rather than demolished, then this will significantly lower end of life carbon emissions. Additionally, if a building can be dismantled and recycled then the initial embodied carbon will not be wasted and fewer new materials will be needed. However, new builds generally have far lower operational emissions, so it is the balance of whole life carbon which should be the deciding factor between repurposing and new build.

While there is a clear and present need for new housing stock, certain changes could be made to minimise the embodied carbon of these projects, with enormous potential to lessen the environmental impact of the built environment globally.

Singapore



MMC

In Singapore, two 40-storey residential towers were built from nearly 1,900 prefabricated modules. The modules for Clement Canopy were 85% finished off-site and were assembled onsite. Developers say that they were able to reduce waste onsite by 70% and around 30% off-site through this method.

Repurposing

In Annapolis, US, a 1960s-era mall has been repurposed into a village-within-a-city, with several hundred apartments, new stores, and office space, all now called the Annapolis Town Center. The development is one of the state's transit oriented projects, built around a station on the state's commuter rail system, designed to encourage residents to give up their cars to commute into the city.

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We provide our clients with valuation, consultancy, transactional and financing advice in the residential (PRS), student accommodation, co-living, senior living and healthcare sectors - across the UK and Europe. Our track record is unrivalled, having advised our clients on over £20bn of investment in the last three years alone.

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