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Association of Italian Engineering, Architectural,
and Technical-Economic Consulting Organizations



CONFINDUSTRIA

Report on the Foreign Activities of Italian Engineering, Architectural and Consultancy Companies

2022



Ministero degli Affari Esteri
e della Cooperazione Internazionale



ITALIAN TRADE AGENCY

ICE - Agenzia per la promozione all'estero e
l'internazionalizzazione delle imprese italiane



CENTRO EUROPA RICERCHE



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OICE is the employers' Association, belonging to Confindustria (the Confederation of Italian Industry), which represents Italian engineering, architectural and technical economic consulting organizations.

Founded in 1965 OICE unites all the major Italian engineering companies and most of the best qualified small and medium firms in the industry. OICE operates in 4 major areas: representing and safeguarding category interests, promoting the culture of organized engineering, providing services for members and promoting internationalization of Italian Engineering. OICE is member of FIDIC – International Federation of Consulting Engineers and EFCA – European Federation of Engineering Consultancy Associations. OICE participates to the international activities and Italian Institutional missions, promotes special partnerships with the engineering Associations, sustains the participation of the Italian Consulting companies to the tenders organized by the International Financial Institutions.

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ITALIAN TRADE AGENCY

ICE - Agenzia per la promozione all'estero e
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ITA - Italian Trade Agency is the Governmental agency that supports the business development of our companies abroad and promotes the attraction of foreign investment in Italy.

With a motivated and modern organization and a widespread network of overseas offices, ITA provides information, assistance, consulting, promotion and training to Italian small and medium-sized businesses.

Using the most modern multi-channel promotion and communication tools, it acts to assert the excellence of Made in Italy in the world.

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INTRODUCTION

Roberto Carpaneto – OICE's Vicepresident for International Affairs

«Italy and Italians are an extraordinary country and people; they should be a normal population but they are not» (Altan – Italian artist and satirist)

2021 and the beginning of the 2022 were extraordinary for our companies: after the covid peaks the market environment has changed significantly and our companies, those which were able to «survive» the last very difficult five years, demonstrated the great capabilities to seize the opportunity in a changed environment.

The growth in 2021 and firstQ2022 was significant for our country and our engineering/architectural and consulting companies. Conditions are changed with the beginning of the war early this year but our companies and the market is still very busy.

Challenges are the inflation and the shortage of personnel, nevertheless our companies continue to work intensively in our country and abroad. The growth of the domestic market is always and constantly positive and we are very happy and positive of this situation, however the international market has substantially kept its position with a portion of about 50% of total production of our companies that have increased their total business volume.

Shortage of young engineers has become a real problem and our companies look for help in the country but also abroad ; foreign engineers are very useful for the international market and this is a «treasure» that will remain with our companies and will contribute to their transformation in an enlarged international market. I expect that this will have some effect in the near future when domestic positive market conditions will slowly decrease in three-six years.

This is a key point : companies work, accidentally or not, preparing their future in the international market. With new colleagues and with new standardized international tools. Digitalization is the key new advantage of our job: was a «nightmare» in the recent past but now our companies work more and more in the international and domestic market using BIM and advanced digital tools and technologies to face the threat of cost, efficiency and time.

I believe we have begun really a new development of our companies and more and more the essential value of multidisciplinary, flexibility and competence of Italian firms is now stably recognized in the international market. I strongly believe that we are not anymore one of the voice, but we are one of the best if not even the best engineering/architectural and consultancy contributor in the world. We cannot be the biggest, the quantity champion, but the quality and the content of our contribution in the projects in the international market has rare competitors and few other similars.

I am positive but pragmatic; there are also issues threatening this scenarios. The war in Ukraine, the inflation and the developing new world order.. Globalisation, as we know until few month ago, is disappearing. The world is divided in few areas of influence, and Italy, and our Italian engineering firms, are constrained in a specific world portion. In this portion we can work hard, we can grow and stabilize and consolidate our presence.

We cannot do it alone; in these recent few years it has been demonstrated the great contribution and the effectiveness of working as a team. We have been working much closer with our authorities and national institution such as Ministry of foreign affair, and ICE. Let me also say that, as OICE, we have been trying to help the process and we are very proud of tangible results for many of our companies.

The «distance» of the future is reduced ; we will not miss the opportunity.

25 years
of
passion
for design
passion
for people



REH Cluj Napoca Hospital, Cluj - Romania

transport and social infrastructures
design & project management
sustainable approach
BIM oriented



1997 ——— 2022



MIND - Cascina Merlata Station, Milan - Italy



Cadarache Centre - Fusion for energy, Cadarache - France

In the last 25 years 3TI Progetti has worked in planning, design, project & construction management of transport and social infrastructures, with particular attention to environmental aspects. We have carried out over 2500 projects around the world and has positioned itself in the global market as a leading architecture and engineering consulting firm. With headquarters in Rome, we are a global player operating in more than 30 countries.

and towards the future



Chapter 1. INTERNATIONAL OUTLOOK

• The Macro-economic context

After a quite robust global recovery in 2021 (+6.1%), the current year began with a slowdown of the economic cycle, higher than projected inflation rates and unexpected geopolitical tensions, first of all the Russian invasion of Ukraine.

Tensions in global supply chains have therefore worsened, causing further significant increases in the prices of many raw materials, especially those exported from Russia, Ukraine, and Belarus. This contributed to a further acceleration of inflation in both advanced economies and emerging and developing countries. In addition, global financial conditions have tightened, reflecting an increase in bond yields caused by inflationary pressures and by the new stance of the monetary policy. This could lead to a new debt crisis in emerging markets and developing economies.

The conflict in Ukraine represents not only a huge humanitarian crisis, but also a terrible negative shock to a world economy that still struggles to recover from the pandemic. Global activity was already slowing as inflation rose due to supply disruptions and rising food and energy prices. The war has exacerbated all these problems.

The conflict in Ukraine could lead to a sudden stop of European gas imports from Russia. In fact, bottlenecks on gas supply by Russia are already occurring. Inflation may also be more difficult to reduce than expected if labor markets are tighter than expected or if inflation expectations break free. Finally, the new outbreaks of COVID-19, as well as a further resurgence of the crisis in the real estate sector could affect Chinese growth.

According to the World Economic Outlook published in July 2022, global growth is projected at 3.2% in 2022, 0.4 percentage point lower than the previous forecast. In 2023, global growth will be 2.9%, 0.7 percentage points lower than the IMF's previous forecast.

Despite projected annual growth close to 3% in 2022, fourth-quarter-over-fourth-quarter growth projections point to a significant weakening of manufacturing activities in the second half of 2022. Compared to previous estimates, the revisions are negative for most of the advanced economies, while emerging and developing economies show a high heterogeneity.

In this framework, emerging markets and developing economies are expected to outperform advanced economies both in 2022 and in 2023 (+3.6% vs +3.9% in 2021 and +2.5% vs +1.4% in 2022).

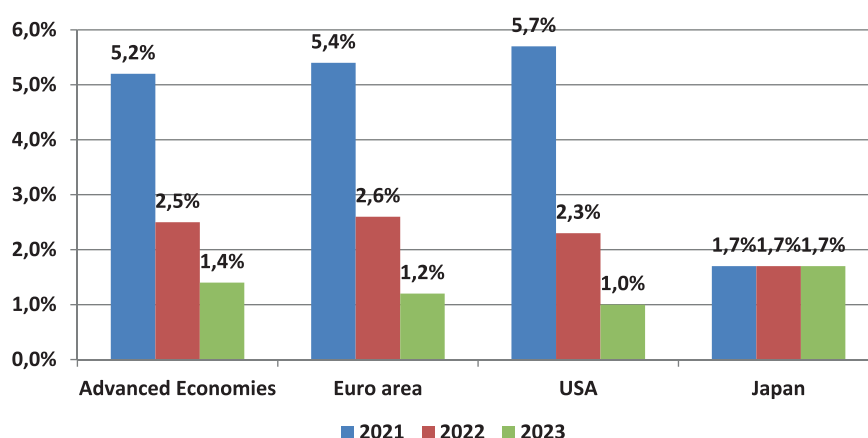
Global trade growth in 2022 and 2023 will slow due to a decline in global demand and supply chain problems. Furthermore, the appreciation of the dollar in 2022, of about 5% in nominal effective terms in June compared to December 2021, is also likely to have slowed the growth of world trade, considering the dominant role of the dollar in trade. In this scenario, as highlighted by the recent SACE's Rapporto Export, world trade in goods is expected to grow by around 4.2% in 2022 (+2.7% in September 2022), while services are expected to grow by around 17.0% next year (+12.2% in 2023).

Given this global macroeconomic scenario, figure 1 and figure 2 depict the GDP growth for advanced and emerging economies provided by the last World Economic Outlook of the IMF.

Advanced economies: following a 5.2% expansion in 2021, GDP is expected to rise by 2.5% in 2022, and to rise less in 2023 (+1.4%).

- USA: According to IMF estimates, after a quite strong recovery (5.7%) in 2021, the gross domestic product of the USA is expected to rise by 2.3% in 2022 and by 1.0% in 2023, following the same path of the other advanced economies. IMF projects a further decline in the rate of unemployment (from an actual 5.4% in 2021 to an expected 3.5% in 2022 and 3.5% in 2023).
- Euro Area: IMF forecast foresee two years of slow growth, weaker in the second year. Real GDP is expected to rise by 2.6% in 2022 and by 1.2% in 2023. Unemployment is projected to decrease to 7.3% in 2022 and to 7.1% in 2023, from a higher value of 7.7%.
- Japan: IMF projected a stable rise in real GDP by 1.7% in 2022 and 2023. IMF projects a decline in the unemployment rate in 2022 (2.8% against a 2.6% in 2021) and a further reduction is expected in 2023 (2.4%).

Figure 1.1 Real GDP growth forecast, advanced economies

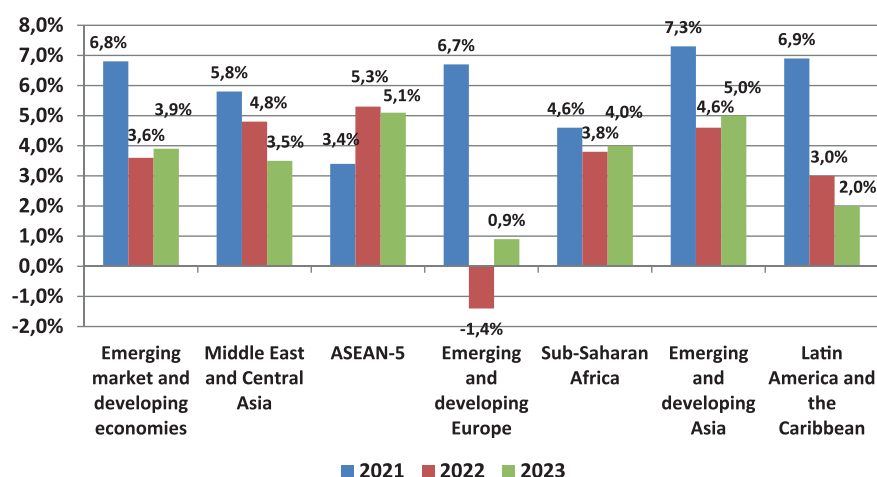


Source: elaboration on IMF data

Emerging markets and Developing economies: after a strong recovery in 2021, +6.8%, economic growth is expected to slowdown in 2022, +3.6%, and to accelerate slightly in 2023, +3.9%. Last projection for 2022 are more optimistic than the previous World Economic Outlook.

- Middle East and Central Asia: the IMF scenario estimates a rise in GDP in 2022 of 4.8%, after a growth of 5.8% in 2021. The IMF estimates a lower rise for 2023 (+3.5%). Middle East, Caucasus, and Central Asia countries are highly exposed to global food prices, particularly the price of wheat. Nevertheless, for oil exporters, higher fossil fuel prices may provide some offsetting gains. For example, the 2022 forecast for Saudi Arabia is revised up 2.8 percentage points, reflecting higher oil production. Besides, unresolved social tensions (Kazakhstan and Sudan) could also act as a drag on investment and growth. Overall, labor market conditions have improved, even if there are uneven situations. For example, in Sudan the unemployment rate is expected to increase in the following years. Current account balances will show high diversity. As expected, commodity exporting economies are expected to overtake commodity importers due to improved terms of trade. Indeed, high growth rates are expected for current accounts of oil-exporting countries, while negative growth rates for importing countries.
- Emerging and developing Asia: the expected growth for this area in 2022 is 4.6%, compared to +7.3% in 2021. Chinese economy grew by 8.1% in 2021 and IMF projected a rise by 4.3% in 2022 and 5.2% in 2023. The forecast for this year has been downgraded by 1.1 percentage points, reflecting the greater-than-expected damage caused by COVID-19. Rising commodity prices will reduce the current account surplus and push inflation towards the target. To mitigate the impact of the persistent pandemic and worsening terms of trade, fiscal, monetary, and regulatory policies are expected to be more favorable than expected. The outlook of this country is subject to significant risks. Recurring outbreaks of COVID-19 and severe blockades in major cities would reduce the expected recovery in consumption and service activity.

Figure 1.2 Real GDP growth forecast, emerging and developing economies



Source: elaboration on IMF data

- Emerging and developing Europe: last year IMF expected a GDP increase in 2021, equals to 4.4%, but it grew by 6.7%. IMF expects a decrease

by 1.4% in 2022 and an increase by 0.9% in 2023. These estimates are influenced by the performance of Russia which is estimated to decrease by 6.0% in 2022 and 3.5% in 2023, due to war in Ukraine and sanctions.

- Sub-Saharan Africa: Sub-Saharan African economy was expected to increase by 3.4% in 2021, but it grew by 4.6%. As the other group of countries, IMF expects a rise of 3.8% in 2022, and a higher increase in 2023 (+4.0%).
- ASEAN-5: GDP increased by 3.4% in 2021. According to the last IMF projection, a stronger growth is expected in 2022 for these countries (Indonesia, Malaysia, the Philippines, Singapore, and Thailand), +5.3%, in line with the previous IMF estimates, and the economic growth will slightly slowdown in 2023, +5.1%.
- Latin America and the Caribbean: the economy of this area grew by 6.9% in 2021, more than the IMF forecast of last year. Growth in Latin America and the Caribbean is expected to slow in 2022 and remain weak the following year. Slowing growth in major export markets, US monetary tightening and global supply bottlenecks are spilling over into this region. The major economies of the LAC will be among the slowest this year, dragging regional growth up to 3.0%. As said before, growth is set to slow further in 2023 to just 2.0%. The invasion of Ukraine by the Russian Federation has raised prices for many regional exports but is likely to have a net negative impact on the growth of this area. In Brazil, growth is expected to decline sharply to 1.7% in 2022, from 4.6% in 2021, and then slow further to just 1.1% in 2023. Growth is expected to decline over the year, due to real income compression caused by double-digit inflation, stalemate in investment growth and greater uncertainty about domestic policy.

SOURCES:

- BIS, Annual Economic Report, June 2022
- International Monetary Fund, World Economic Outlook Update, July 2022
- International Monetary Fund, World Economic Outlook, April 2022
- SACE, Rapporto Export 2022. "Caro Export" – Sfide globali e il valore di esserci, September 2022
- World Bank, Global Economic Prospects, June 2022

• International Investment Trends

After the strong reduction of global foreign direct investment (FDI) in 2020, in 2021 global FDI flows were \$1.58 trillion, 64% more than 2020. FDI flows gained momentum mainly due to the boom in mergers and acquisitions (M&A) markets and the growth of international project financing due to flexible financing conditions and important infrastructure stimulus packages. However, the global environment for international business and cross-border investment changed dramatically in 2022 with the start of the war in Ukraine, which occurred while the world was still rocked by the impact of the pandemic. The war is causing a triple crisis of food, fuel, and finance, with rising energy and

commodity prices driving inflation and worsening debt spirals. Investor uncertainty and risk aversion could put significant downward pressure on global FDI in 2022.

War, with its direct implications for investment to and from the Russian Federation, Belarus and Ukraine, the effects of sanctions, shortages of energy and basic raw materials, and the inflations are not the only factors cooling the outlook for FDI in 2022. Indeed, the flare-up of COVID-19 in China could again contract greenfield investments in Global Value Chains-intensive industries. The direct effects of the war on investment flows to and from the Russian Federation led to the arrest of existing investment projects and the cancellation of the projects already announced, the exodus of multinationals from Russia, a high loss of value of the assets and sanctions that virtually preclude outflows. Multinationals from developed economies that support sanctions account for over 60% of FDI stocks in the Russian Federation.

Recent interest rate hikes in the US, Europe, and other major economies due to high inflation could slow M&A markets over the year and curb growth in international project finance. Negative sentiment in financial markets and signs of an upcoming recession could accelerate a decline in FDI.

According to UNCTAD, the part of FDI most closely related to financial markets has not yet lost strength. Cross-border mergers and acquisitions and financing of international infrastructure projects could provide a minimum level of FDI in 2022. Greenfield investment in industry, which has seen only a partial recovery in 2021 and remains weak in many sectors, is likely to suffer more in this new scenario. In the first months of 2022 there has been a high level of uncertainty and risk aversion among investors. According to preliminary data, the number of greenfield project announcements in the first quarter of 2022 was 21% lower than the 2021 quarterly average. Cross-border merger and acquisition activity was 13% lower than the 2021 average and deals financing of international projects decreased by 4%. However, in terms of value, cross-border mergers and acquisitions increased by 59% compared to last year, while the value of the announced international project finance agreements was 37% below the record highs of 2021.

In summary, according to UNCTAD, the strong growth of FDI in 2021 cannot be sustained in 2022. The activity of new projects will probably be more affected by investor uncertainty. Comparing the global trend of FDI with other macro-economic variables, during the pandemic to date, a stark contrast emerges. In 2020, FDI was hit far more severely than global trade and GDP while in 2021 FDI grew faster than trade and GDP. The large fluctuations in FDI recorded between 2020 and 2021, especially in developed countries, were mainly caused by the substantial component of the financial flow of FDI and by transactions strictly linked to the performance of financial markets. Mergers and acquisitions and retained earnings of global multinationals account for much of the rapid rebound in growth in 2021.

FDI flows saw a strong recovery in 2021 in all regions. However, the increase in FDI flows to developed economies accounted for the bulk of global FDI growth, up 134%. The leap in developed economies is the consequence of the stimulus packages and reflects the more volatile nature of FDI flows into developed countries, due to the greater financial component. FDI flows to de-

veloping regions also increased significantly. Towards developing Asian countries, they increased by 19%, particularly in East and Southeast Asia. Flows to Latin America and the Caribbean increased by 56%, while those to Africa more than doubled.

Overall, developed countries' share of global flows has returned to pre-pandemic levels, about half of the total. In 2020, this share was just one third of the total. According to UNCTAD, most developed countries saw an increase in FDI in 2021. The overall increase was characterized by strong fluctuations in foreign direct investments, financial flows deriving from corporate restructuring and mergers and acquisitions.

FDI trend varied significantly by region. Geographically, flows increased in North America, other European countries, and other developed countries while they decreased in the EU. In particular:

- Among developed countries, in North America, flows to the United States more than doubled to \$ 367 billion in 2021, the third highest level ever recorded, after those in 2015 and 2016. Between the countries, United States remained the main recipient of FDI. In addition, equity investments increased by 54% in 2021, due to the sharp increase in cross-border mergers and acquisitions. Announcements of new greenfield projects also increased 28% to \$ 86 billion.
- FDI flows to European Union reached \$ 138 billion in 2021, the lowest level since 1997, mainly due to continuing large swings. High decline has been registered in the Netherlands and Luxembourg. Equity flows in EU countries dropped sharply from \$ 220 to - \$ 4.2 billion in 2021. Cross-border sales of mergers and acquisitions also fell 26% to \$ 139 billion. While intra-EU sales have doubled, mainly due to acquisitions by French and German multinationals, sales to multinationals outside the EU have declined.
- FDI flows into Africa reached \$ 83 billion in 2021, a record high of 5.2% of global FDI. Most beneficiaries experienced a moderate increase in FDI after the fall in 2020 caused by the pandemic. Southern Africa, East Africa and West Africa have seen their flows increase; Central Africa remained flat and North Africa declined. Despite good FDI results on the continent, total greenfield ads remained depressed, at \$ 39 billion, showing only a modest recovery from the low of \$ 32 billion in 2020 (down from \$ 77 billion in 2019). On the contrary, financing agreements for international projects aimed at Africa showed a 26% increase in number (to 116). According to UNCTAD, the increase was supported by heavy investment from multilateral finance and capital market investors who focused on energy.
- FDI in developing Asia reached an all-time high of \$ 619 billion in 2021, underscoring the region's high resilience. It is the largest FDI receiving region in the world, accounting for 40% of global inflows. The upward trend in 2021 was consistent across the region, except for South Asia. Inflows remain highly concentrated in China, Hong Kong, Singapore, India, the United Arab Emirates, and Indonesia. FDI in East Asia increased by 16% to \$ 329 billion in 2021. FDI in China reached \$ 181 billion, due to heavy investment in services and high-tech sectors. Southeast Asia had inflows up 44% to \$ 175 billion in 2021. The increase was supported by strong investments in

the manufacturing sector, the digital economy, and infrastructure. Across developing Asia, investment in Sustainable Development Goals-relevant sectors has increased significantly. Financing values for international projects in these sectors increased by 74% to \$ 121 billion, mainly due to strong interest in renewable energy.

- FDI in Latin America and the Caribbean increased by 56% to \$ 134 billion in 2021, supported by strong inflows in sectors such as automotive manufacturing, information and communications services, financial and insurance services, and electricity supply. In South America, FDI grew 74% to \$ 88 billion 2021, supported by increased demand for green commodities and minerals. In Central America, FDI reached \$ 42 billion while in the Caribbean \$ 3.8 billion.

FDI flows to structurally weak and small economies increased by 15% to \$ 39 billion in 2021 while FDI in least developed countries increased 13% to \$ 26 billion.

Cross-border mergers and acquisitions, greenfield project announcements and international project financing agreements increased in 2021, both in value and in number. More flexible funding terms have led to robust growth in the number of international project funding, up 68%, and an increase in M&A activity. The recovery in greenfield project announcements after the steep decline in 2020 was more moderate, with project numbers up 11%.

In 2021, the value of announced greenfield investment projects increased by 15% to \$ 659 billion. The recovery in the number of greenfield project announcements was mainly driven by services, which now account for 61% of total projects, the highest ever. Rapidly growing global demand for digital infrastructure and services has led to a significant increase in greenfield FDI project activity in the ICT sector, with values up 23% to \$ 104 billion and numbers up 26% to a record high 3743 projects.

The number of project finance reached 2115 in 2021, an increase of 68% compared to 2020 and almost three times the average of the last 10 years. For the first time, the value of international project funding deals exceeded \$ 1 trillion. Investments in renewable energy are the main growth engine of international project finance for several years. Currently, according to UNCTAD, it accounts for more than half of the annual number of projects. In 2021, the growth of activity in the sector was exceptionally high (+49%).

In addition, cross-border sales of mergers and acquisitions reached \$ 728 billion in 2021, +53% compared to 2020. In the services sector, cross-border mergers and acquisitions doubled to \$ 461 billion, one of the highest levels ever recorded. Information, communication, and pharmaceuticals have remained in first place as the pandemic has pushed business into the digital and healthcare sectors. Sales of assets in digital industries increased by 69% to \$ 136 billion, a record high.

Forecasts for 2022: the trend of FDI in developed economies is very uncertain, due to the consequences of the war in Ukraine. This is especially true in Europe, where high energy prices and energy dependence will more directly affect investments. Supply chain disruptions will also harm some industries, including the automotive one, as war and sanctions are hindering the production

of key inputs. However, in the first four months of 2022, cross-border mergers and acquisitions, the most important type of FDI in developed economies, increased by 39%, to \$ 285 billion, compared to an average of \$ 205 billion in the first four months of 2021. One-third of M&A sales (\$ 87 billion) occurred in the extractive industries, reflecting rising commodity prices.

Among developing countries, FDI trends in China in 2022 will be affected by renewed blockages in some cities and areas, with significant implications for industrial production and global supply chains.

SOURCE:

- Global Investment Prospect, UNCTAD June 2022

• World: Focus on construction and infrastructures opportunities

The construction market was \$ 7.28 trillion in 2021 and is expected to reach \$ 14.41 trillion by 2030 with a compounded average growth rate of 7.3% from 2022 to 2030. Construction market agglomerates new construction, maintenance and repair of buildings, construction of roads and public service facilities.

Although the current environment shows many positive indicators, contractors are aware of some significant risks. High inflation, supply chain disruptions, labor shortages and high material costs are and will be among the most difficult problems to solve. Many of the negative factors that have impacted the construction sector have emerged during the last two years due to pandemic. Moreover, during the first half of 2022 we have seen global unrest and a devastating human toll. With the conflict in Ukraine set to persist in the coming quarters, the global economy will have to contend with high energy and commodity prices, supply chain bottlenecks and worsening investor confidence.

Investments in the residential sector will be supported by government measures and building programs. Investments in the infrastructure, energy and public services sectors continue to be a major driver of overall production growth in the construction sector. Moreover, industrial construction is also recovering from the COVID-19-induced recession in 2020.

According to GlobalData, the regional outlook for the construction market will be heterogeneous:

- North America: while growth remains positive overall, there are short-term risks stemming from a shortage of skilled labor and rising material prices, which are contributing to delaying projects and increasing costs.
- Latin America: after a strong recovery in 2021, the growth in 2022 will slow down, despite the support for activity from spending programs. Inflationary pressures, rising interest rates, depreciation of local currencies and tightening budgets will undoubtedly weigh on output growth.
- Western Europe: construction activity recorded growth in 2021. Most markets experienced a solid recovery after a sharp decline in 2020. Huge public investment, particularly for large infrastructure projects, has spurred the recovery of the construction sector.
- Eastern Europe and Central Asia: due to the uncertainty stemming from the

crisis, low investor confidence is likely to lead to a capital outflow from Eastern European economies, hampering growth over the next year. This will extend to construction markets and is likely to cause a slowdown in production in sectors driven by private investment. However, the war in Ukraine resulted in the destruction of countless buildings and infrastructure networks. Current estimates for reconstruction are around 750 billion euros.

- South Asia: according to GlobalData, the region's construction sector is expected to continue to grow in 2022, albeit at a moderate pace in the near term, particularly driven by growth in India. Support for construction will come from the expected increase in population, which will increase consumption and the demand for new housing and infrastructure.
- Northeast Asia: construction production growth in Northeast Asia in 2022 is expected to decline due to an expected slowdown in construction growth in China. The decline in construction activity in South Korea and new restrictions in China due to Covid-19 continue to weigh on regional construction production.
- Middle East and North Africa: high growth in oil and gas prices will most likely lead to a surplus of revenue for oil and gas producing nations, thus accelerating investment in the construction sector. The recovery is expected to be steady in the short term, supported by a recovery in the energy, oil and gas, tourism, and other infrastructure sectors.
- Sub-Saharan Africa: Construction in Sub-Saharan Africa is likely to continue to gain momentum in 2022, although inflation poses a serious downside risk, especially as it will reduce public and private spending. The prerogatives of the governments of this region concern social well-being, health, and the stabilization of the economy.

In summary, the global construction sector will face several serious risks and challenges in the second half of 2022. In recent months, the picture of global economic growth and international construction has deteriorated. More than 6.5 million people have fled Ukraine since the Russian invasion, over 2.5 million people have fled to neighboring Poland, some 650,000 have sought refuge in Romania and some 400,000 have moved to Moldova.

Besides, countries like Australia, Brazil, Canada, Nigeria, Algeria, Iraq, Mexico, Norway, Venezuela, Saudi Arabia, Iran, Qatar, Kuwait, UAE are likely to receive huge revenues from their exports of oil, gas, wood products, grain, metals such as platinum, nickel, bauxite, tungsten / Wolfram, lithium, and other minerals. International construction costs continue to rise. Contractors are feeling the effects of rising construction costs related to steel, copper, plumbing and other key materials.

SOURCES:

- Business wire, Construction Market by Construction Type, by Sector - Global Opportunity Analysis and Industry Forecast 2022-2030, August 2022
- Global data, Construction Market Size, Trends and Growth Forecast by Key Regions and Countries, 2022-2026, June 2022.

● **European Union: Focus on investments and programs in the EU region**

According to EFCA, European consultancy engineering markets (ECEM) re-

covered in 2021, showing the highest order stock ever registered. In the first part of 2022 the state of ECEM showed further signs of improvement compared to autumn 2021. But now, there are big challenges for the next future: the biggest one that consulting and engineering sector in Europe has to face is the staff shortage. Moreover, the war in Ukraine, new outbreaks of Covid-19 in China, rising inflation and a tightening monetary policy are all contributing to generate new uncertainties about developments of ECEM.

As regards ECEM employees, the forecast for autumn 2022 is pessimistic. Employment has significantly increased by 53.5 points since autumn 2021, and by a massive 159.3 index points over the past twelve months. The current level of 143.5 points is 43.5 points above the reference period of spring 2018 (spring 2018=100), but still less than what was expected in autumn of 2021, thus reflecting a development which is levelling out. Projections for the next six months reflects the current uncertainties in the market, with an expected decrease in the EFCA Employment index to 130.4 points.

As said before, order stock of ECEM has reached the highest ever recorded level by the EFCA Barometer by spring 2022. This follows a significant dip during the COVID-19-crisis and can be seen as a strong indicator of the overall good state of business of the consultancy and engineering industry in Europe. Notwithstanding the worries about the next future, the outlook for the coming six months continues to paint a picture of growth: 43% of the countries expect an increase in order stock, 52% expect order stock to remain at the same level and only 4% (one country) expect a decline.

Regarding turnover of ECEM, the outlook is slightly pessimistic: eleven countries expect turnover in the consultancy and engineering industry to increase, while ten expect turnover to remain at the same level and two countries foresee a decline.

EFCA observed some negative projections because European consultancy engineering companies have to face important challenges: staff shortage and low fees continue to dominate as primary concerns of the industry followed by digitalisation, bureaucracy and salary. A growing concern is political uncertainty, mainly due to the consequences of the Ukrainian war. This conflict will have negative effects on world trade and could stimulate a reorganization of world production, with widespread reshoring or near-shoring processes.

In this worrying context, investments in the construction sector in the EU will be boosted by the largest stimulus package ever financed in Europe (long-term budget + NextGenerationEU (NGEU)). A total of € 2,018 trillion at current prices will help rebuild the economy after the shock of the COVID-19 crisis. Thanks to these investments, the EU member states will be able to be greener, more digital, and more resilient. However, the economic stimulus deriving from these investments could be hurt by the negative factors previously highlighted.

According to Bruegel's analysis, see table 1.1, the EU member states will allocate 26.2% of grants and loans from the Recovery and Resilience Facility-RFF to the construction and transportation-storage sectors. In detail, Luxembourg and Belgium stand out with an estimated expenditure of 58.4% and 48.7% respectively in these sectors. Regarding Italy, on the other hand, the estimated investments in construction and transportation-storage, using the RRF, would

amount to almost 50 billion euros in the coming years (25.9% of loans and grants guaranteed by the European Union). This percentage is far from the planned investments of France and Germany in these two sectors, 36.5% and 37.0% respectively, but the volume in Italy is incomparable higher (49.5 bln in Italy vs 14.9 bln in France and 10.4 bln in Germany).

Table 1.1 Recovery and Resilience Facility amount (Grants + Loans) of the European members countries, NACE classification

	F Construction		H Transportation and storage		Total (a)
	Volume (bn €)	% of (a)	Volume (bn €)	% of (a)	Volume (bn €)
Austria	0.05	1.11%	0.85	18.86%	4.50
Belgium	2.56	43.24%	0.32	5.44%	5.93
Bulgaria	1.14	17.26%	0.67	10.12%	6.61
Croatia	1.09	17.09%	0.52	8.09%	6.40
Cyprus			0.09	7.40%	1.23
Czech R.	0.13	1.85%	1.08	15.33%	7.07
Denmark	0.38	24.48%	0.03	1.74%	1.56
Estonia	0.07	7.26%	0.15	14.95%	0.98
Finland	0.13	6.20%	0.11	5.01%	2.10
France	8.17	19.95%	6.78	16.56%	40.95
Germany	2.52	9.02%	7.83	28.00%	27.95
Greece	2.85	15.65%	0.76	4.18%	18.19
Hungary	0.19	2.63%	1.72	23.93%	7.20
Ireland	0.04	4.03%	0.16	16.53%	0.99
Italy	15.02	7.84%	34.55	18.04%	191.50
Latvia			0.30	16.18%	1.83
Lithuania			0.35	15.60%	2.22
Luxembourg	0.02	25.71%	0.03	32.67%	0.09
Poland		0.00%	7.30	20.31%	35.97
Portugal	1.44	8.65%	1.51	9.10%	16.64
Romania	3.15	10.71%	8.73	29.71%	29.39
Slovakia	0.74	11.32%	0.80	12.24%	6.55
Slovenia	0.09	3.47%	0.31	12.56%	2.48
Spain			13.20	18.99%	69.53
Sweden	0.69	20.98%	0.15	4.46%	3.30
Total	40.48	8.24%	88.30	17.97%	491.51

Source: elaboration on Bruegel data, updated September 2022

SOURCES:

- Recovery plan for Europe, European Commission, link https://ec.europa.eu/info/strategy/recovery-plan-europe_en
- EFCA, Barometer spring 2022. The State of the European Consulting Engineering Sector, June 2022

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Chapter 2. THE PRESENCE OF ITALIAN ENGINEERING, ARCHITECTURAL AND CONSULTANCY COMPANIES IN THE WORLD

This chapter analyses the presence of Italian engineering, architectural and consultancy companies in the world. The first section describes the sample, the second shows the results of the survey, the third summarizes the main findings.

• Sample

OICE associated companies produced in 2021 a global turnover of 3,107 million euros (figure 2.1.) The expected turnover in 2022 is equal to 3,463 million euros.

The value of turnover abroad accounted for 47.6% of the global turnover in 2021.

Figure 2.1. OICE associated companies' global turnover

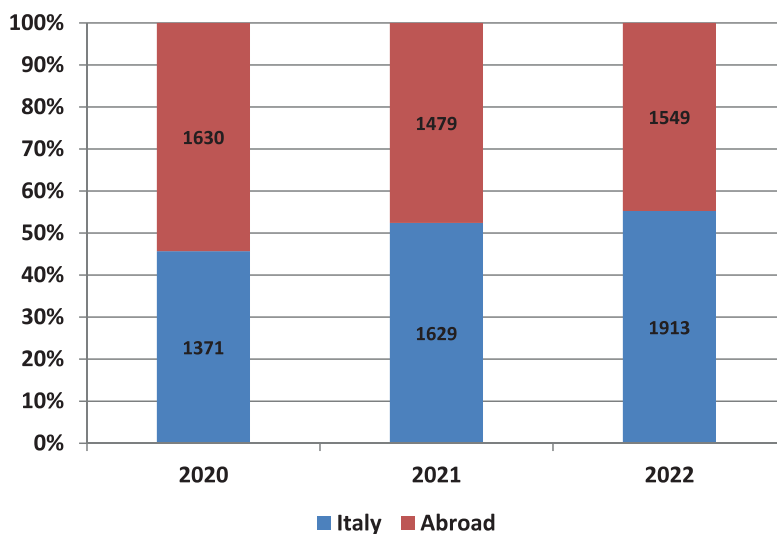
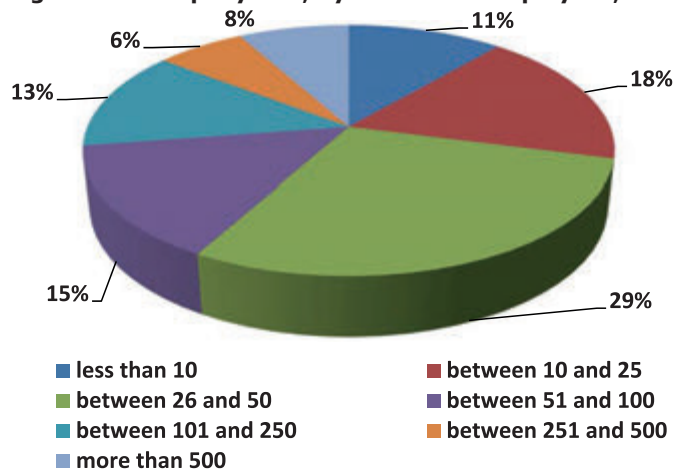


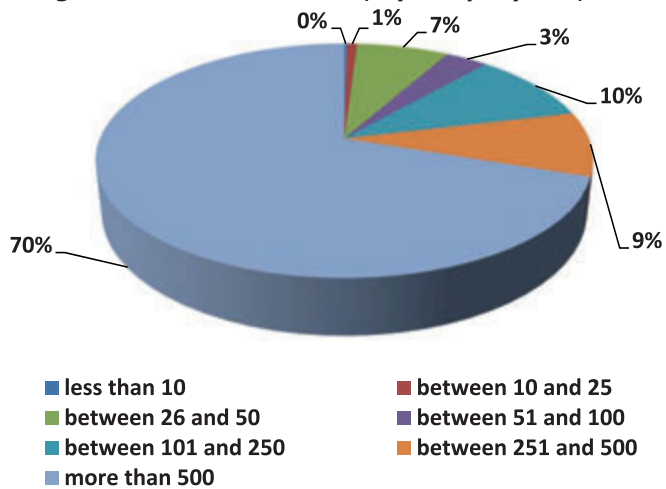
Figure 2.2 illustrates the companies' size regarding the number of staff. 47% employ between 10 and 50 staff, 34% between 51 and 500, while 11% are micro companies, with less than 10 staff.

Figure 2.2 Company size, by number of employees, 2021



Companies with more than 500 staff (8% of the sample) account for 70% of global turnover (figure 2.3), companies with 251 to 500 staff cover 9% of global turnover and companies with 101 to 250 staff account for 10% of global turnover.

Figure 2.3 Production value, by company size, 2021

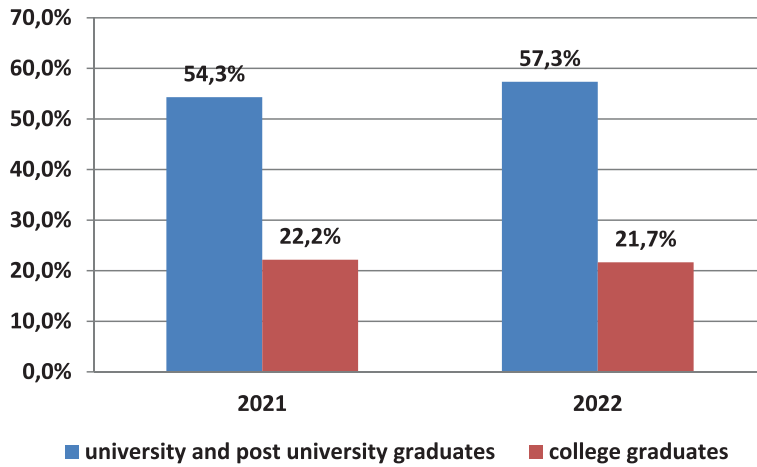


• Results of the survey:

Staff and Turn Over

In 2021, 54.3% of staff held a bachelor’s degree or a higher qualification (figure 2.4. This percentage has increased in 2022. Conversely, the number of college graduates has decreased from 22.2% in 2021 to 21.7% in 2022.

Figure 2.4 Employee education



Companies with more than 500 staff hold the highest percentage of university graduates (62.6%, figure 2.5), while companies with less than 10 employees have the lowest number of university graduates (15.7%).

Figure 2.6 provides the percentage of women employees by company size. Companies with less than 10 staff has the highest percentage of women employees in 2021 (33.3% in 2021) and show an increase in 2022 (35.7%). Companies with 11 to 25 staff has shown the highest percentage of women employees in 2022 (37.4%). Biggest companies (with more than 500 staff) had the second lowest percentage of women employees both in 2021 (26.5%) and in 2022 (28.7%). Overall, the percentage of women employees has been equal to 27.7% in 2021 and it increased to 29.5% in 2022. The number of women employees increased by 16.5% between 2021 and 2022.

Figure 2.5 Employee education, by company size, 2021

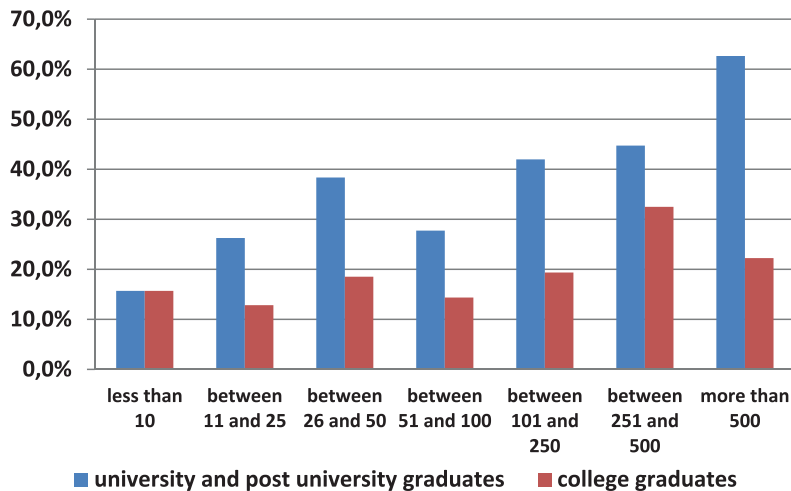


Figure 2.6 Women employees, by company size, 2021

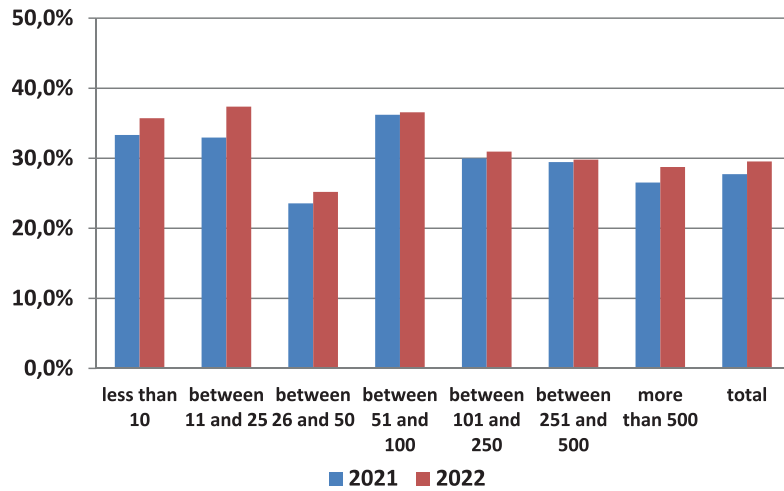


Figure 2.7 provides the percentage of foreign production value, by firm size. Companies with more than 500 employees have the highest ratio of foreign production (67.5% of their total production value), followed by firms with less than 10 (63.5% of the total). On the other hand, companies with 251-500 staff have the lowest percentage, with export corresponding to 4.8% of their turnover, followed by companies with 11-25 staff (13.5%).

Figure 2.7 Share of production value made abroad, by firm size, 2021

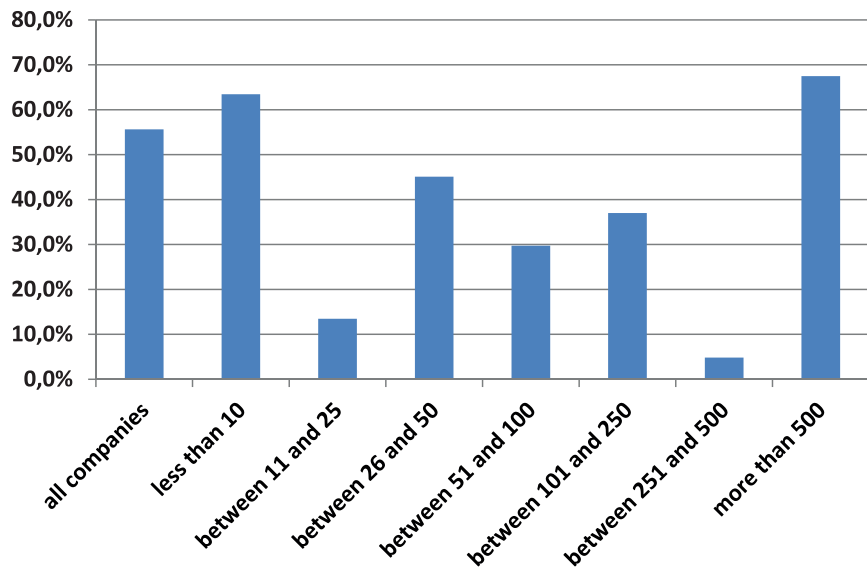
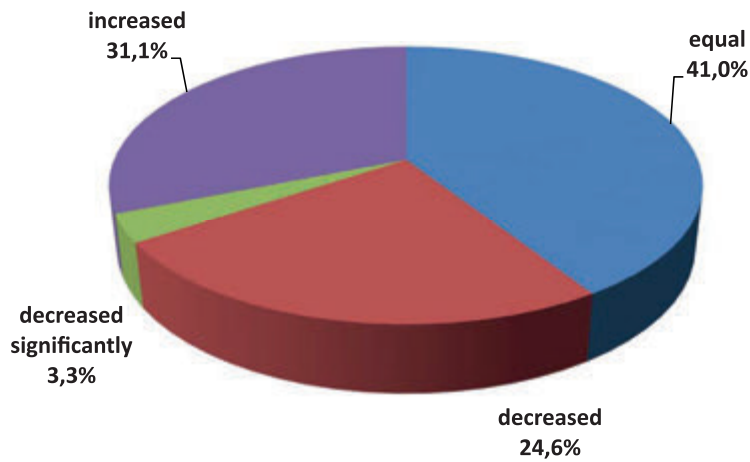


Figure 2.8 shows the foreign production of 2021 vs 2020. For the 27.9% of companies, the foreign production decreased (for the 3.3% of them the production abroad decreased significantly). For the 41.0% of the sample the foreign production remained equal (19% last year) while for 31.1% of firms the foreign production increased in 2021 (22.2% last year).

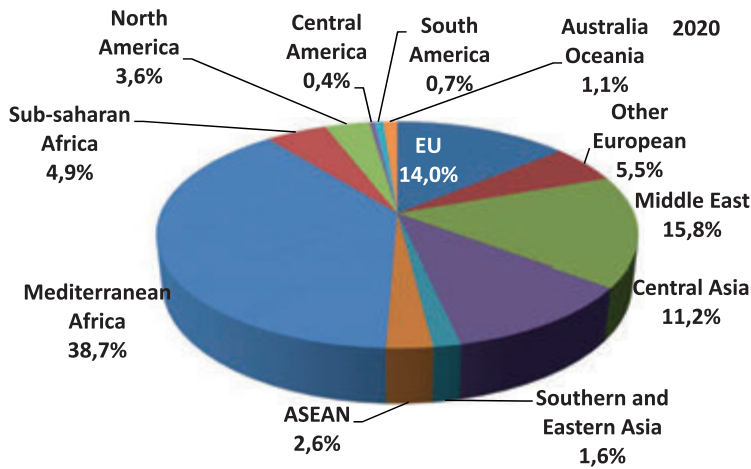
Figure 2.8 Foreign production, 2021 vs 2020

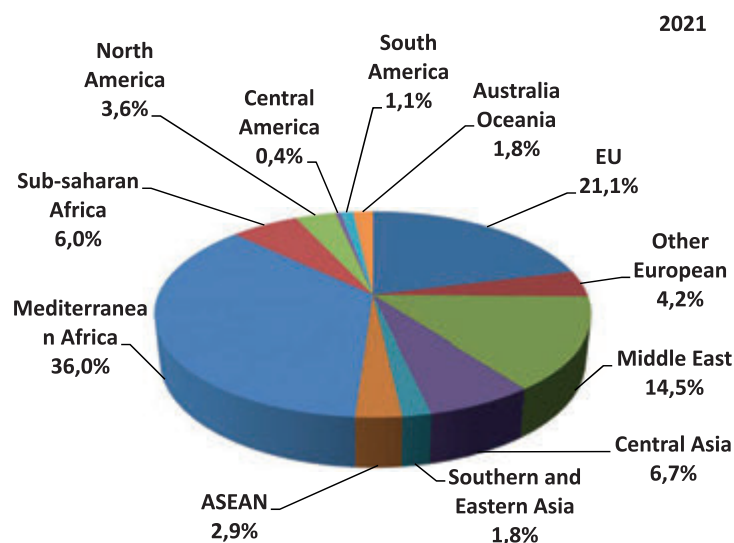


Considering the areas of activity, (figure 2.9) the first one in 2021 is Mediterranean Africa (36.0%) followed by Asia (25.8%; particularly 14.5% Middle East, 6.7% Central Asia, 2.9% ASEAN and 1.8% Southern and Eastern Asia).

European Union accounts for 21.1% while European countries outside the EU for 4.2%. Sub-Saharan Africa and North America account respectively for 6.0% and 3.6% while Central America, North America, and Oceania combined account for 3.3%.

Figure 2.9 Production value, by area, 2020 and 2021





The top sector in terms of value of foreign activity is energy (66%, 62% in 2020). Transportation accounts for 13% (17% in 2020), followed by construction-urban planning with 6% (9% in 2020). The remaining 15% of foreign production value covers manufacturing, other infrastructures, environment and agriculture, and ICT sectors (figure 2.10).

Figure 2.10 Foreign production value, by sector, 2021

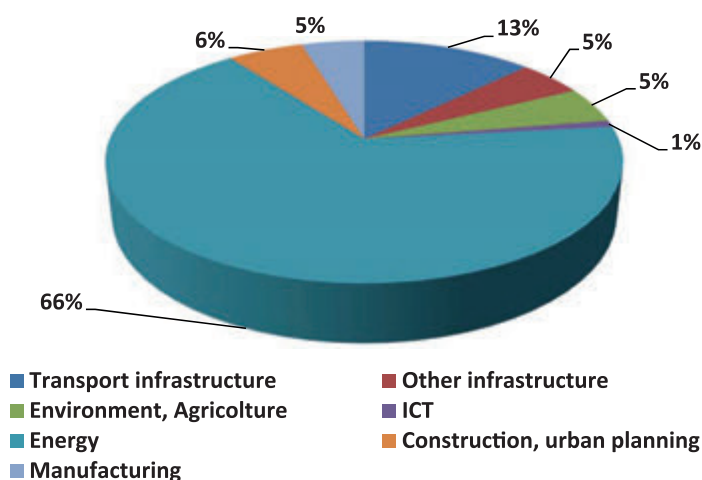
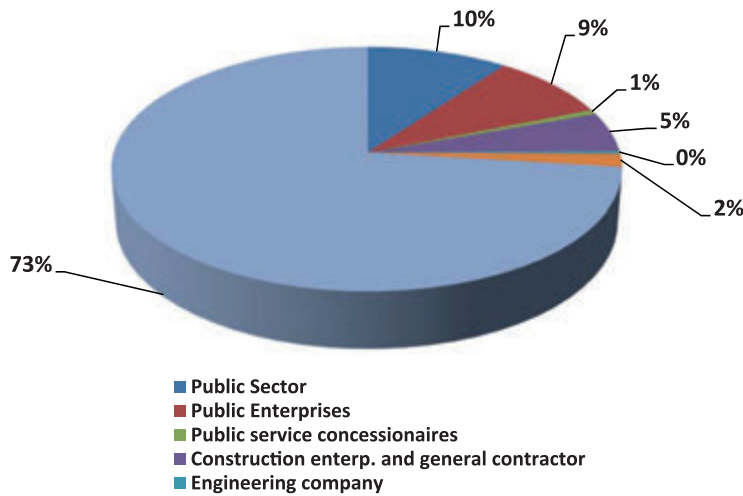


Figure 2.11 illustrates the percentage breakdown of foreign production by client. Private sector customers account for 73%, 4 percentage points more than in the former year, followed by public sector 10% (7 points less) and public enterprises 9% (2 points more).

Figure 2.11 Foreign production value, by client, 2021



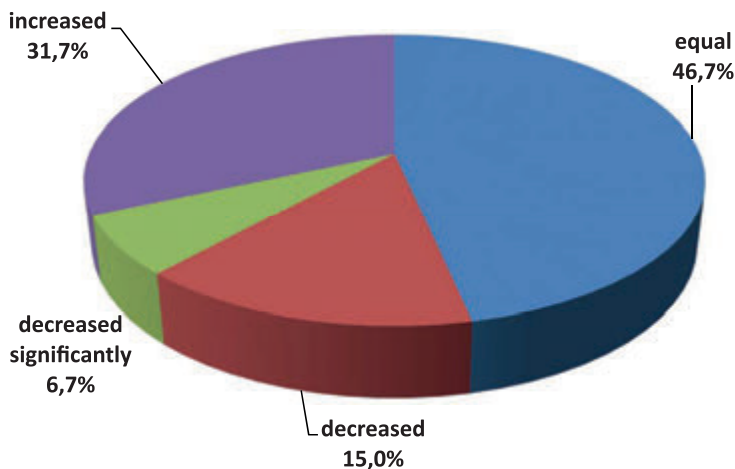
• On-going view on 2022

This section provides some insights on the ongoing year. Data shown in figures have been collected at the end of May 2022.

Companies project an increase of production value abroad of about 5% in 2022 in comparison to 2021 (see figure 2.1 in the previous section).

Figure 2.12 shows opinions of firms about the foreign production of 2022 vs 2021. For the 21.7% of companies the value of their foreign production decreased but only for a 6.7% of them this value decreased significantly. For the 31.7% of companies the production abroad increased (30% in the former year) while for a 46.7% of them this value remained stable (33.3% in the former year).

Figure 2.12 Foreign production, 2022 vs 2021



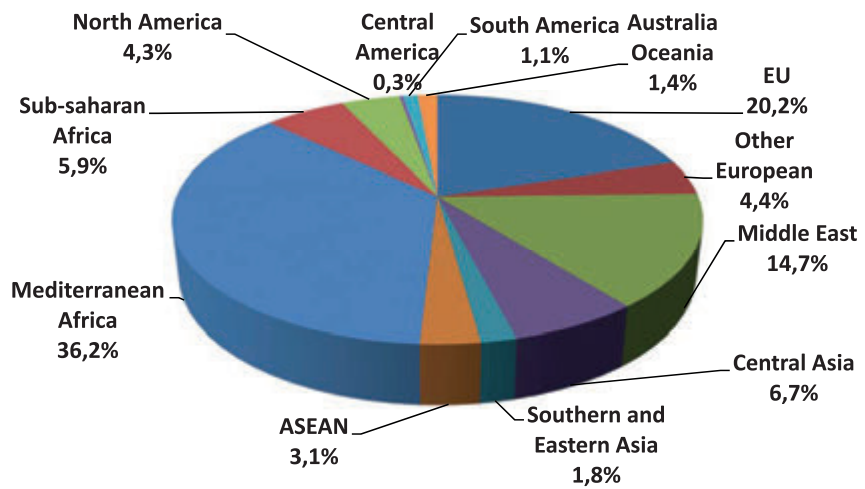
Considering the areas of activity, (figure 2.13) companies are focusing their

activity on closer market in comparison with 2021, especially Mediterranean Africa and EU.

Indeed, the first area is Mediterranean Africa (36.2% of foreign estimated activity in 2022) followed by Asia (26.3%; 14.7% Middle East, 6.7% Central Asia, 3.1% ASEAN, 1.8% Southern and Eastern Asia). EU area is still one of the most important (20.2%) while European countries outside the EU account for 4.4%.

Sub-Saharan Africa and North America account respectively for 5.9% and 4.3%, while South America, Central America, and Oceania combined account for 2.8%.

Figure 2.13 Production value, by area, 2022



The top sector in terms of value of foreign activity in 2022 is energy (66.6%). Transportation accounts for 12.7%, Construction-urban planning for 6.0% and Environment-agriculture for 4.3%. The remaining 10.4% of estimated foreign production value in 2022 covers manufacturing, other infrastructure, and ICT sectors (figure 2.14).

Figure 2.14 Foreign production value, by sector, 2022

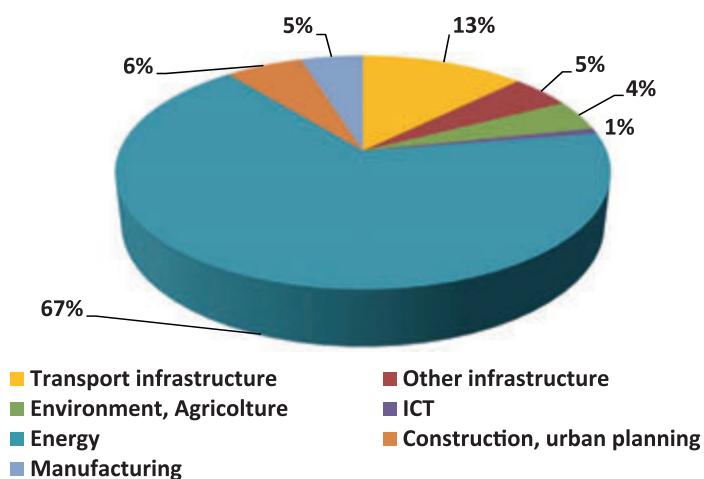
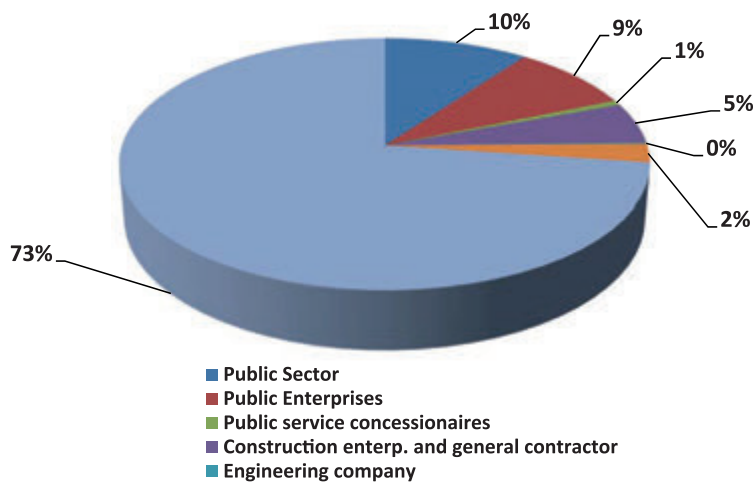


Figure 2.15 illustrates the percentage breakdown of foreign production by client estimated in 2022. Private sector costumers account for 72.8%, followed by public sector 10.1% and public enterprises 8.7%. Public service concessionaires, construction enterprises and general contractor, engineering company and national and international financial institutions combined account for 8.5%.

Figure 2.15 Foreign production value, by client, 2022

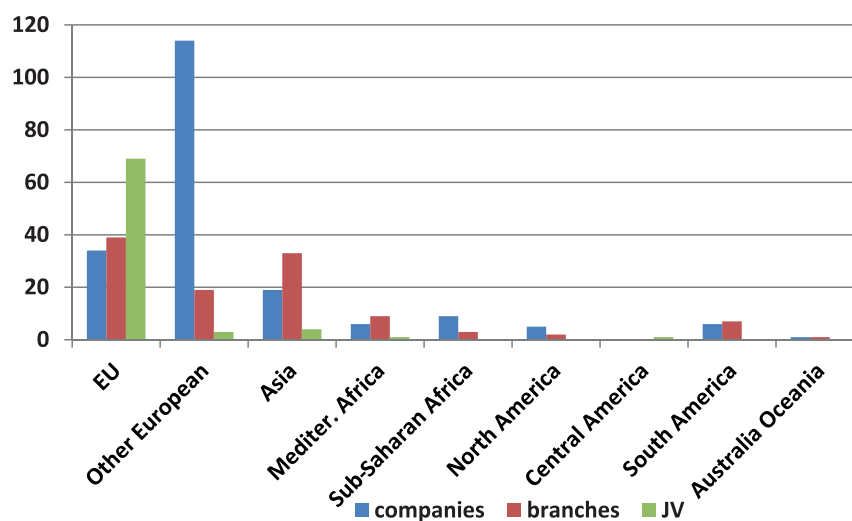


• Operational organization: companies, branches, and partnerships abroad

This section provides a brief description of the operational organization of OICE’s companies, specifically focusing on the number of companies, branches, and partnerships abroad.

Figure 2.16 shows the number of foreign companies, branches, and partnerships by area in 2021 and points out that out of 194 foreign companies, 114 are located in European countries outside the EU (58.8%), 34 in the EU (17.5%), 19 in Asia (9.8%), 11 in America (5.7%). Regarding the number of branches, out of 113 of them, 39 are located in the EU (34.5%), 33 in Asia (29.2%), 19 in other European countries (16,8%), 9 in Mediterranean Africa and 9 in America (both 8.0% of the total). About the number of Joint Ventures, 69 out of 78 are located in the EU (88.5%), 4 in Asia (5.1%), 3 in other European countries, 1 in Central America and 1 in Mediterranean Africa.

Figure 2.16 Number of foreign companies*, branches and partnerships by area, 2021



*The Italian company has a share in the ownership of the foreign company higher than 25%.

• Conclusions

This chapter highlighted some relevant aspects of Italian engineering, architectural and consultancy companies' activities, and organization of foreign markets. Mediterranean Africa and Asia are paramount for foreign activities in terms of value of production. The other relevant geographic area is the EU.

Energy and transportation and construction are the leading sectors of activity. The most significant clients are private and public sectors.

Finally, the data available for the first half of 2022 provide a quite positive picture, considering the inflation shock and Ukrainian war. Companies project an increase of production value abroad of about 5% in 2022 in comparison to 2021.

Chapter 3. OUTLOOKS, STRATEGIES AND TRENDS 2022-2024

The companies sample provides indications that allows to focus on outlooks, strategies, and future trends.

39% of the sample is active on foreign markets.

82% of companies with more than 251 staff are active on foreign markets (100% between 251 and 500 and 71% more than 500) while only 19% of companies with less than 10 staff are active on international markets (figure 3.1).

Figure 3.1 Percentage of companies with international activities by size

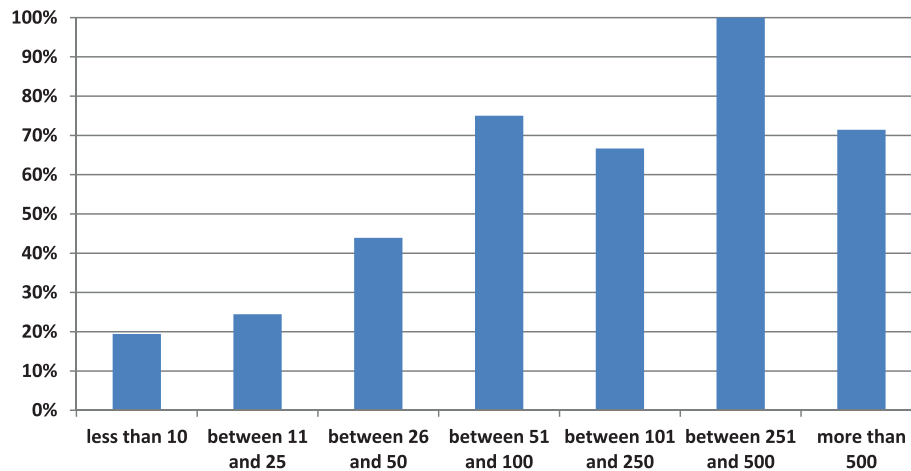
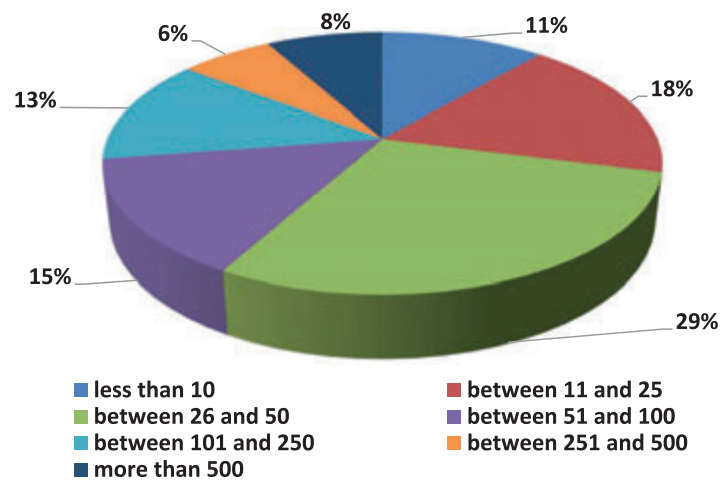


Figure 3.2 reflects the distribution in terms of size of OICE's associated companies active on foreign markets. Companies with 11 to 25 and 26 to 50 employees represent the 47% of the companies active abroad. The other clusters show percentages equal or less than 15%.

Even though size is an influencing factor that impacts on internationalization, associated companies with less than 50 employees represent 58% of the total of those active abroad. This consideration will be relevant when we consider the services useful to sustain and enhance internationalization activities among Italian engineering companies.

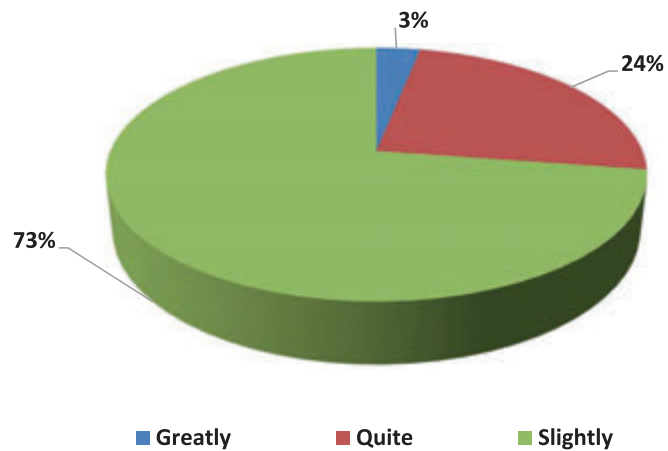
Figure 3.2 Size of companies active abroad, by number of employees



• Challenges, opportunities, and strategies related to foreign activities

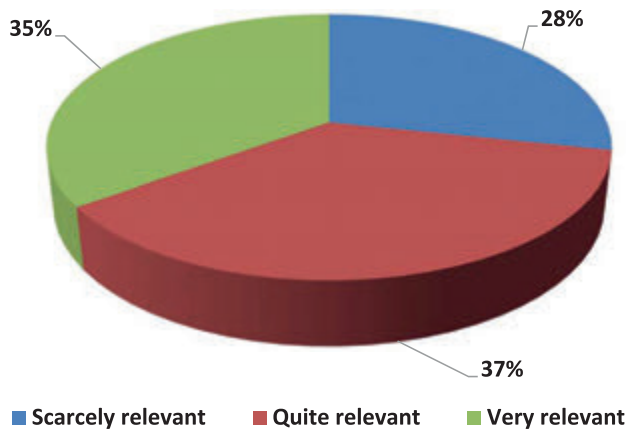
27% of companies active on international markets say that foreign activities and opportunities strongly increased during the first four months of 2022, notwithstanding the difficult global scenario we have observed (figure 3.3).

Figure 3.3 During the first four months of this year have opportunities and activities abroad increased?



72% of companies active on international markets say that foreign activity is very or quite relevant for their strategy (figure 3.4) while the other 28% say that is scarcely relevant.

Figure 3.4 Relevance of international activities on company strategy



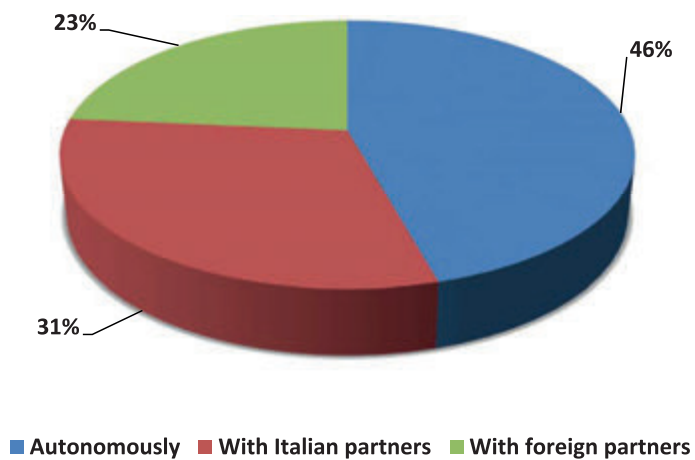
Among the companies not operating abroad (figure 3.5), 53% say that the focus on national market is the most important reason for disregarding foreign markets, 20% consider that the lack of contacts in foreign markets prevents international activity, 10% say that the lack of training and skilled workers for internationalization impedes internationalization.

Figure 3.5 Why is your company not active abroad?



Regarding the way companies carry out their internationalization activity (figure 3.6) 46% carry out their internationalization activity autonomously, 31% do it with Italian partners while 23% establish JVs with foreign partners.

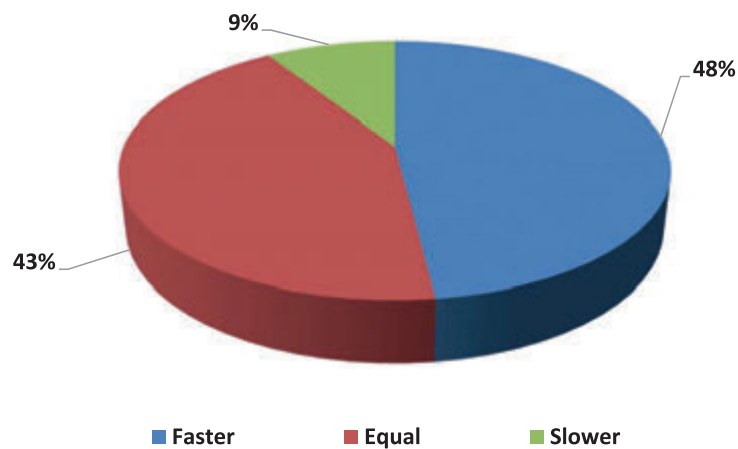
Figure 3.6 How do you carry out your internationalization activity?



Finally, figure 3.7 shows that foreign partners are faster than Italian ones in payment times. Indeed, only 9% of companies say that foreign partners are, on average, slower than Italians in payment times.

These data show that there is therefore a strong need to promote internationalization. This is a major challenge for the industry’s associations and for public institutions and organizations that must improve the quality of their services and their capacity to meet SMEs expectations.

Figure 3.7 Payment time of foreign partners in comparison to Italian ones



• **National and international institutional measures**

This section analyzes the view of companies on national and international measures to support economy and enterprises.

89% of companies declared that the *Patto per l’Export*¹ measures had a high

¹ On Monday, 8th June 2020, the signing ceremony of the “**Patto per l’Export**” took place, during which the strategic lines of support for the internationalisation of the production system were illustrated, in light of the current economic and health situation. The **Patto per l’Export** (1,4 billion euros) consists of six pillars: 1) Communication, 2) Training/Information, 3) E-commerce, 4) Exhibition system, 5) Integrated promotion, 6) Concessional finance.

impact on company activities with particular reference to training/information, Exhibition system, Integrated promotion and concessional finance, figure 3.8.

60% of companies are satisfied (15% very satisfied) with subsidized/non repayable loans by SIMEST, figure 3.9. It seems that SIMEST have matched the companies' needs. Indeed, flow of new loans has been fundamental to support the activity of companies during the recovery.

Figure 3.8 What has been the impact of Patto per l'Export measures on your company growth (training, promotion, finance...)?

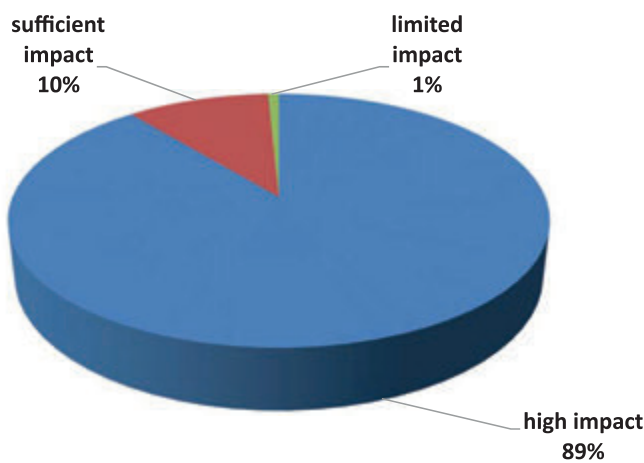
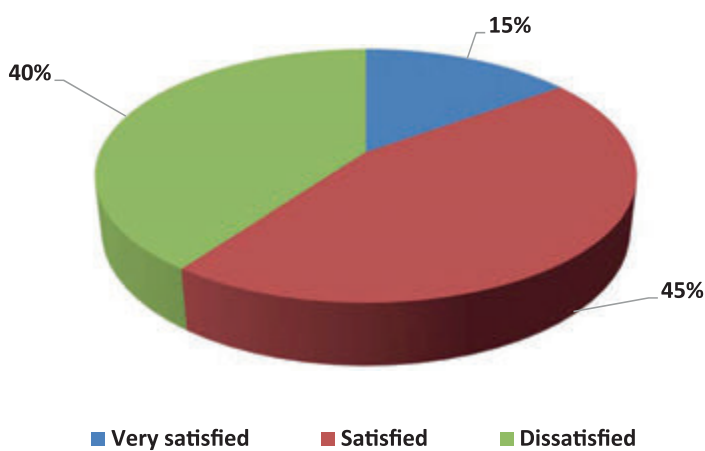


Figure 3.9 What is your level of satisfaction with subsidized/non repayable loans by SIMEST?



Focusing on relationship with foreign counterparties, as showed by figure 3.10, 71% of companies say that foreign contractors had a collaborative approach on the ongoing contracts during the first half of 2022. This is a positive feature because it means that companies can preserve activity in foreign markets notwithstanding the difficult global scenario. A similar result emerges from figure 3.11: 59% of companies affirm that the institutional measures adopted by foreign countries facilitated their business abroad.

Figure 3.10 What has been the reaction of foreign contractors on the ongoing contracts?

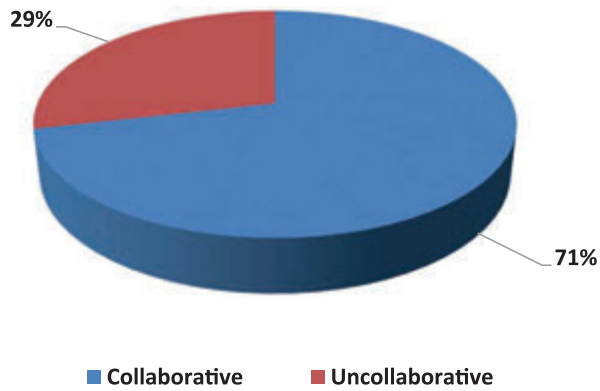
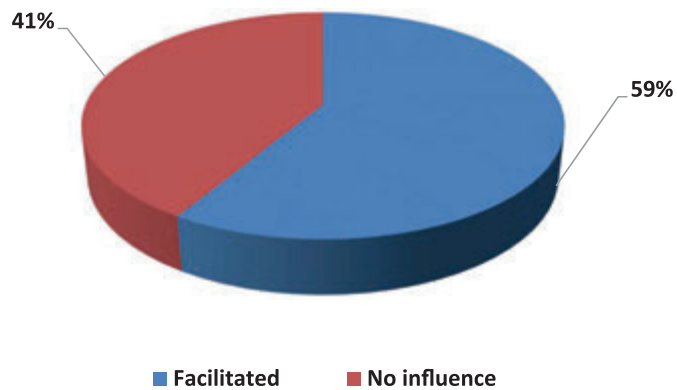


Figure 3.11 How have institutional measures of foreign countries influenced business abroad?



Considering the support of the Italian institutional and economic system abroad (such as Embassies, Italian Trade Agency etc.), 82% of companies say that this support has been useful because it facilitated their activity abroad (figure 3.12).

Focusing on the Global Gateway², the new European strategy to tackle the most pressing global challenges, 49% of companies declare this measure will be useful for their business in the future (figure 3.13).

Summing up, this section highlights that both national and international measures have helped companies to preserve and to restore their activity in 2021 and to manage the first difficult half of 2022.

² The European Commission and the EU High Representative have set out the Global Gateway, a new European strategy to boost smart, clean and secure links in digital, energy and transport sectors and to strengthen health, education and research systems across the world.

Fig 3.12 How has the support of the Italian institutional and economic system influenced the activity abroad?

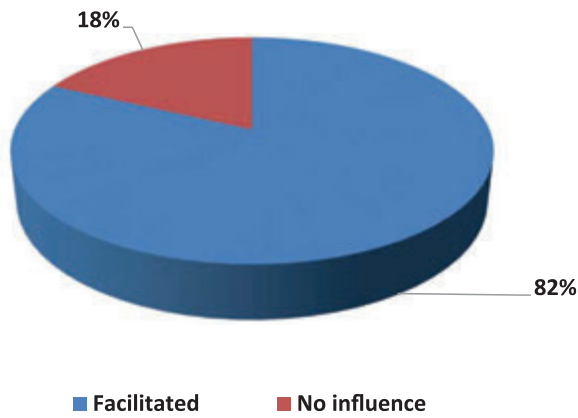
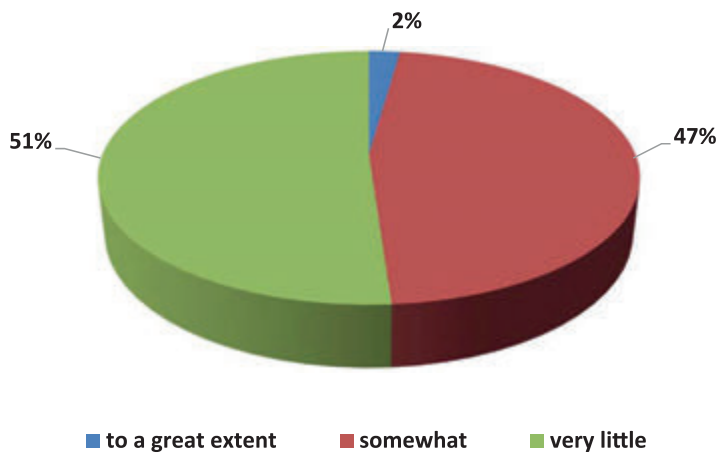


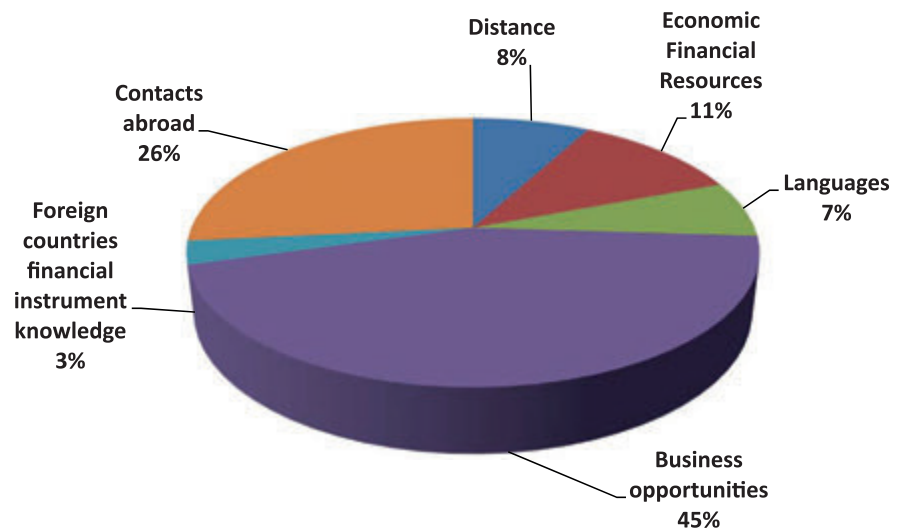
Fig 3.13 Is the Global Gateway a good opportunity for your business?



• Foreign markets and institutional support

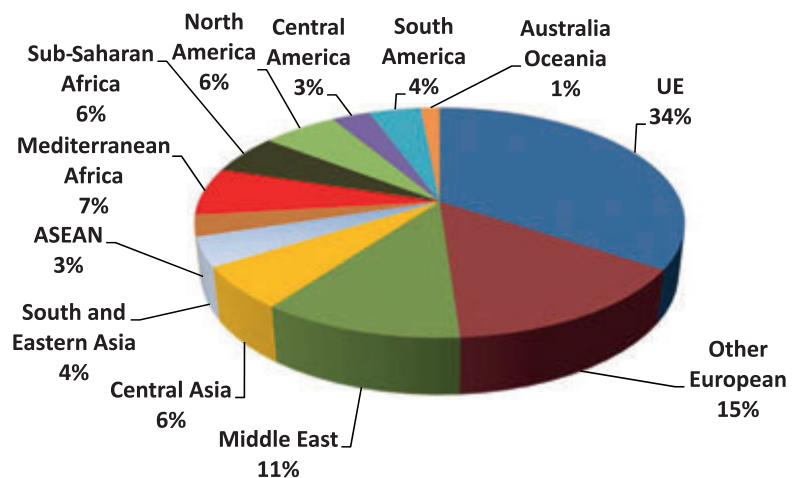
Regarding the motivations that determine the choice of a specific foreign market or a geographic area in the future (figure 3.14), 45% of companies select a foreign market according to its business opportunities, 26% choose a foreign market because they have contacts in that particular area, 11% on the basis of economic and financial resources, 8% make their choice upon the geographic distance assessment between Italy and foreign markets. Only 7% base their choice on the language and a residual 3% on the knowledge of the foreign country’s financial allocation.

Figure 3.14 Selection criteria for foreign markets



Concerning the areas of interest for the next three years (figure 3.15), 34% prefer the European Union and 15% the non-EU European countries, 11% the Middle East and 7% the Mediterranean Africa. Geographical distance remains a paramount concern in companies' choices. This is due to an average middle size engineering industry with limited access to distant foreign markets.

Figure 3.15 Foreign areas of interest in the future



Regarding services provided by OICE, 41% of companies used the services in 2021. Relevant services are "missions and institutional events" 28%, "networking" 24% and "training courses" 19% (figure 3.16). The remaining two services, "Direct advice" and "missions and fairs", are used by 11% and 18% of companies respectively.

These results are in line with the activities provided by the Association.

OICE organizes institutional missions in foreign markets, supports networking activities among Italian associates and with foreign partners and promotes training to foster companies' capacity to work with International Financial Institutions.

Last question (figure 3.17) analyzes which business opportunities are most important to start or expand activity abroad among that offered by multilateral banks and IFAs, EU opportunities (European funds, IPA, cooperation in third regions and countries) or foreign government organizations: 41% consider the business opportunities linked to foreign government organization as a priority, 34% consider as a priority the business opportunities offered by multilateral banks and IFAs while the minority (25%) consider as a priority the opportunities linked to EU system.

Figure 3.16 Which internationalization services provided by OICE did you use?

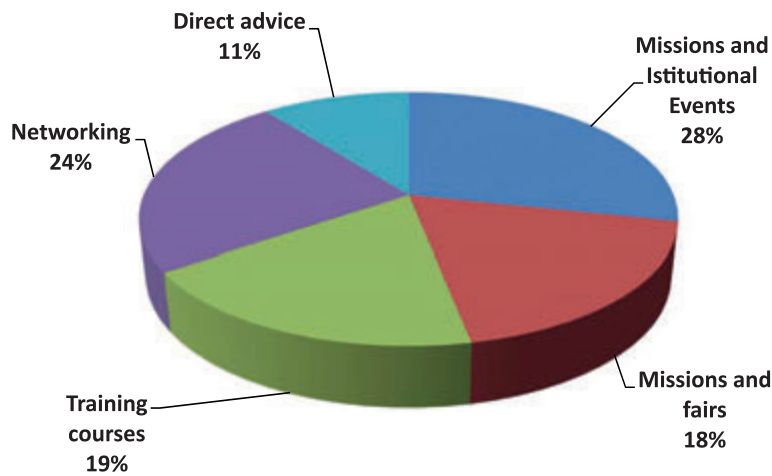
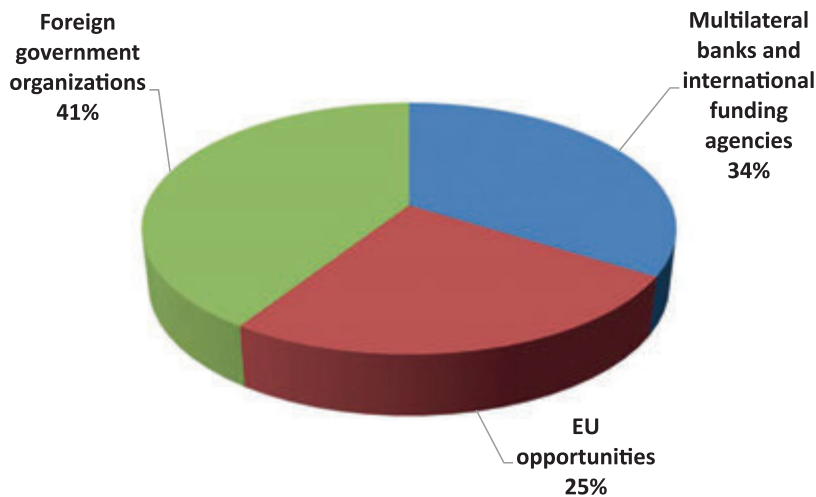


Figure 3.17 Which business opportunities are priority to start/expand your international activity? Business opportunities linked to...



Focus on Ukraine: Ukraine Recovery Plan and OICE-ICEG cooperation

Ukraine Recovery Conference

On 4-5 July 2022, Switzerland jointly with Ukraine hosted the international Ukraine Recovery Conference in Lugano. Ukraine and Switzerland initiated in Lugano a broad-based political process for the recovery of Ukraine. The Conference was the international kick-off for the recovery process in Ukraine.

The following topics were discussed in Lugano:

- The **Recovery and Development Plan** of Ukraine and different contributions of international partners for the recovery of Ukraine;
- The methods, priorities and principles of recovery;
- Social, economic, environmental and infrastructure recovery from damages and losses caused by the war;
- Reforms that are possible or necessary to implement in the current situation.

In particular, the Ukraine Recovery and Development Plan is designed for 10 years, covers 15 national programs and 850 projects for approximately USD 750 billion.

Most part of these funds is planned to be used for the following programs:

1) Modernization of regions and housing (USD 150-250 billion).

This program includes: **Rolling-out energy efficiency and securing supply chain** (At-scale residential energy efficiency program; Develop communication program; Localize insulation materials production), **Modernizing district and individual heating** (Modernize district heating, At-scale installation of heat pumps to replace gas boilers in individual heating), Providing temporary and re-building damaged housing (Temporary housing -converting non-residential buildings, social rent-, financing -mortgages, compensation-, Build new housing infrastructure in line with the urban planning best practices), **Modernizing infrastructure and housing** (Modernize water and wastewater management system, Current and capital repairs of existing building stock, Pilot projects for near-zero energy buildings).

2) De-bottleneck logistics with EU and Strengthen interconnectivity of Ukraine by upgrading logistics (USD 120-160 billion).

These programs include: **Extending throughput capacity on the border with the EU** (Construction of ~200 km of 1435 rail and ~330 km of 1520 rail to the EU border and Danube; Construction of EU cross-border agri. storages and terminals; Reparation and modernisation of sorting stations on key routes; Modernisation of 12 existing EU road border points and construction of 3 additional ones; Expansion of throughput of Danube port infrastructure), **Short-term and long-term reconstruction and modernisation of infrastructure** (Construction, reconstruction and modernisation of rail tracks and bridges; Reconstruction of 293 km of rail tracks, 95 turnouts, supporting stations; Renewal of ~5,800

railcars and ~190 locomotives; Construction, reconstruction and modernisation of 24,900 km of roads and 1,750 bridges; Reconstruction of 5-7 airports damaged by war; Construction, reconstruction and modernisation of rail tracks and bridges; Construction, reconstruction and modernisation of 27,200 km of roads and 3,000 bridges; Construction of public green charging power stations) **and Construction of high-speed rail Kyiv–Warsaw.**

3) **Energy independence and Green Deal** (USD 130 billion).

These programs include: Expanding interconnect with ENTSO-E; Natural gas stock replenishment; Securing gas supplies/storage for EU and Ukraine; Expanding oil refining capacity post-war; Oil products infrastructure linked to EU and secure oil products storage hub in Western Ukraine; Modernizing gas transmission and distribution networks; Build out 5-10 GW RES and ~3.5 GW hydro and pumped hydro capacities; Increasing nuclear capacity; Increase gas production from existing fields, develop tight gas fields; Build out ~15 GW electrolyser capacities; Build 30+ GW RES for H2 production; Build smart grids.

Memorandum of Understanding outlines general grounds for OICE and ICEG cooperation



Previous meetings and community of the parties' positions resulted in signing the Memorandum of Understanding between the Interstate Consultants Engineers Guild (ICEG) and Italian Association of Engineering, Architecture and Technical and Economic Consultancy Organizations (OICE).

The Memorandum is targeted at identifying general grounds for cooperation and coordinating efforts and opportunities for effective interaction between Italian and Ukrainian companies.

OICE and ICEG reaffirmed their commitment to deepen cooperation aimed at implementing the projects in construction and related sectors during Ukraine recovery. Both parties are eager to encourage and broaden their contacts via regular communication, holding networking events, and finding the ways to improve best engineering technique practices.

We are confident that exchange of experience and collaboration between professional sectoral associations of Ukraine and Italy will facilitate development of the market of engineering consulting services in both countries and postwar recovery of Ukraine.

• **Conclusions**

The previous year was characterized by a robust rebound of international activity. This positive trend has been hampered in 2022 by the Ukraine war and by the rise in inflation rates all around the world. The associated companies benefited from the 2021 recovery, and they continued to expand their activity in the first months of this year.

In this quite positive scenario, the associated companies are facing the rise of input prices, the hardest challenge that companies have to face in the coming quarters.

Given this unique economic environment, in order to help companies in their internationalization strategy, public and institutional support need to keep increasing. This chapter has indeed shown positive opinions about national and international measures which helped companies last year and in the first half of 2022.



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Chapter 4. FOCUS ON THE ITALIAN RANKING WITHIN THE IFIs

OICE's elaboration on Italian Ministry of Economy and Finance (MEF) data within the cooperation between the International Office of the Association and the Department of the Treasury (MEF).

The Italian participation in the capital of the Multilateral Development Banks is entrusted by Italian law to the Ministry of Economy and Finance, in agreement with the Ministry of Foreign Affairs and International Cooperation (Article 5 par. 5 of the law 125/2014), and is inspired by the principles and objectives adopted at international level, in particular the Sustainable Development Goals (SDGs).

The Italian contribution to these Multilateral Institutions allows Italy to play an important role in the international financial architecture and in informal intergovernmental fora (such as the G7 and the G20, in which coordination on these institutions takes place), from 'other, to achieve possible positive effects on the Italian economy due both to the indirect stimulus effect of world trade, and to the direct one, through the participation of companies and national consultants in tenders and other activities financed by these Institutions.

This focus on **International Financial Institutions (IFIs)** starts with a brief description of IFIs, then highlights their consulting activity and presents data related to contracts awarded to Italian companies. Three charts sum up data related to consultancy contracts at the end of the chapter.

OVERVIEW

IFIs play a major role in the social and economic development programs of nations with developing or transitional economies in many parts of the world. This role includes advising on development projects, funding them and assisting in their implementation. They are characterized by AAA-credit ratings and have a broad membership of borrowing and donor countries. Each of these institutions operates independently.

They have in common the following goals and objectives:

- to reduce global poverty and improve people's living conditions and standards;
- to support sustainable economic, social and institutional development;
- to promote regional cooperation and integration.

IFIs reach these objectives through loans, credits and grants to national governments. Such funding is usually tied to specific projects that focus on economic

and socially sustainable development. IFIs also provide technical and advisory assistance to their borrowers and conduct extensive research on development issues. In addition to these public procurement opportunities, in which multilateral financing is delivered to a national government for the implementation of a project or program, IFIs are increasingly lending directly to non-sovereign guaranteed actors, such as sub-national government entities as well as the private sector.

Moreover, in recent years IFIs have become critical development partners to achieve the Sustainable Development Goals (SDGs). IFIs have deep institutional expertise in providing and catalyzing investments in sustainable development and have taken steps to align their activities with the 2030 Agenda, including by scaling-up climate finance, designing and deploying innovative SDG-related financial instruments, and helping to crowd-in public and private resources to advance global public goods in areas such as combatting climate change and forced displacement.

WORLD BANK (WB)

With 189 member countries, staff from more than 170 countries, and offices in over 130 locations, the World Bank Group is a unique global partnership: five institutions working for sustainable solutions that reduce poverty and build shared prosperity in developing countries. The World Bank Group works in every major area of development. It provides a wide array of financial products and technical assistance, and it helps countries share and apply innovative knowledge and solutions to the challenges they face. The World Bank Group operates in more than 170 countries, working with partners in the public and private sectors in their efforts to end poverty and tackle some of the most pressing development challenges.

In the fiscal year 2022 (July 2021-June 2022), the WB awarded 10,851 contracts for a total value of about 1,919 billion dollars. The contracts awarded to Italian consultancy companies were 61, for a value of 30.9 million dollars, accounting for 1,61% of the total. Italy ranked thirteenth for contract assignments among the Bank's member countries.

- WB Annual Meeting 2023 - Morocco

ASIAN DEVELOPMENT BANK (AsDB)

The Asian Development Bank was conceived in the early 1960s as a financial institution that would be Asian in character and foster economic growth and cooperation in one of the poorest regions in the world. AsDB assists its members, and partners, by providing loans, technical assistance, grants, and equity investments to promote social and economic development. AsDB is composed of 67 members, 48 of which are from the Asia and Pacific region.

In 2021, the AsDB awarded 4,011 consultancy contracts for an overall value of around 697 million dollars. The contracts awarded to Ital-

ian consultants and consultancy companies have been 30, for a value of about 3.31 million dollars, accounting for 0.5% of the total amount, positioning Italy as thirty-fifth for contract assignments among the Bank's member countries.

- Annual Meeting 2023 – Korea

AFRICAN DEVELOPMENT BANK (AfDB)

The African Development Bank was founded in 1964 and comprises three entities: The African Development Bank, the African Development Fund and the Nigeria Trust Fund. The AfDB's mission is to fight poverty and improve living conditions on the continent through promoting the investment of public and private capital in projects and programs that are likely to contribute to the economic and social development of the region. The AfDB is a financial provider to African governments and private companies investing in the regional member countries.

In 2021, the Bank awarded 1246 consultancy contracts for a total value of about 276 million dollars. The contracts awarded to Italian consultants and consultancy companies have been 11 for a value of approximately 10 million dollars, representing 3.74% of the total. Italy was eighth for total contract assignments after Côte D'Ivoire, Senegal, Uganda, Cameroon, Tunisia, Congo RDC, Nigeria and first among non-regional member countries.

- Annual Meeting 2023 - Egypt

INTERAMERICAN DEVELOPMENT BANK (IDB)

The Inter-American Development Bank is the largest source of development financing for Latin America and the Caribbean. Established in 1959, the IDB supports Latin American and Caribbean economic development, social development and regional integration by lending to governments and government agencies, including State corporations. The Bank is owned by 48 sovereign states, which are its shareholders and members. Only the 26 borrowing countries are able to receive loans. In March 2015, the Bank updated its Institutional Strategy for 2010-2020. The document says that to ultimately transform Latin American and the Caribbean "into a more inclusive and prosperous society, three main development challenges must be addressed: social exclusion and inequality, low productivity and innovation, and limited economic integration".

In 2021, the IDB awarded 5,072 consultancy contracts for an overall value of 391 million dollars: 4,950 to regional countries for a total value of 292 million dollars and 121 to non-regional countries for a total value of 99 million dollars. 4 contracts have been awarded to Italian consultants and consultancy companies for a value of approximately 2 mil-

lion dollars, accounting for 0.5% of the total. Italy ranked fifth among non-regional member countries in terms of value of contracts.

- Annual Meeting 2023 - Panama

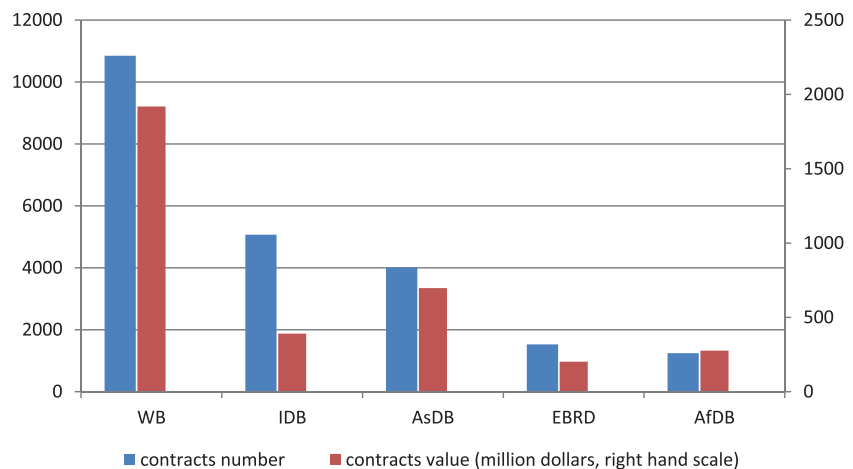
EUROPEAN BANK FOR RECONSTRUCTION AND DEVELOPMENT (EBRD)

The European Bank for Reconstruction and Development (EBRD) was founded in 1991 to create a new post-Cold War era in Central and Eastern Europe, furthering progress towards market-oriented economies and the promotion of private and entrepreneurial initiative. The European Bank for Reconstruction and Development (EBRD) helps businesses and economies thrive. Through its financial investment, business services and involvement in high-level policy reform, EBRD promotes entrepreneurship and change lives. The EBRD goal is to advance the transition to open market economies, whilst fostering sustainable and inclusive growth. Urgency and the ability to respond to momentous events swiftly and decisively, whether it be the end of the Soviet Union, financial crises, the ‘Arab Uprising’ or the coronavirus pandemic have been among the EBRD’s hallmarks from the start. Since its creation EBRD has invested over €145 billion in more than 5,700 projects.

In 2021, the EBRD awarded 1,528 consultancy contracts (projects and corporate procurement) for an overall value of 202.4 million euros. The contracts awarded to Italian consultants and consultancy companies were 49, for a value of about 21,6 million euros, equal to 10.7% of the total amount. Italy ranked second after UK and first among EU countries.

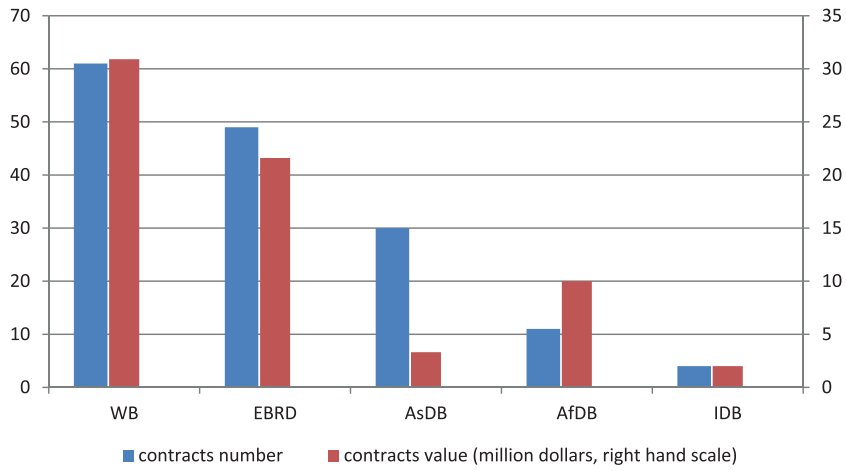
- Annual Meeting 2023 - Uzbekistan

Figure 4.1. Total value and number of consultancy contracts, by bank



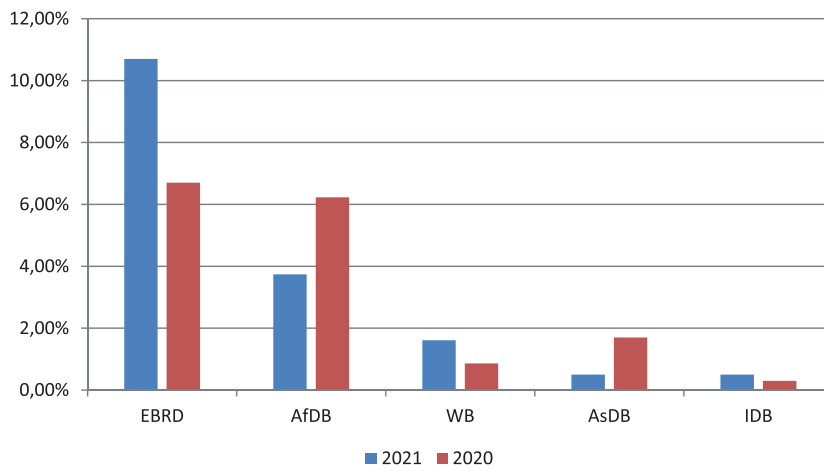
Source: elaboration on Italian Ministry of Economy and Finance data

Figure 4.2. Number and value of consultancy contracts awarded to Italian consultants and consultancy companies, by bank



Source: elaboration on Italian Ministry of Economy and Finance data

Figure 4.3. Percentage of the Italian consultancy contracts value, by bank



Source: elaboration on Italian Ministry of Economy and Finance data

Marco Ragusa
Head of International Office OICE

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Chapter 5. THE ENR's Top 225

A summary of the ENR's Top 225 International Design Firms survey is proposed in this section. According to this survey the leading 225 companies generated \$67.62 billion in design revenue in 2021 from projects outside home countries, showing a +0.7% increase in 2021 from 2020 on a like-for-like basis.

American companies lead the ranking (79 companies, 76 in 2020), followed by European (54, 57 in 2020) and Chinese (23, 24 in 2020) companies, see table 6.1 for details.

11 Italian companies are included in the top 225 in 2021 (12 in 2020). 5 companies improved their ranking in comparison with 2020 and 2 companies are new entries in the top 225. Maire Tecnimont is the first Italian company ranked (33rd, -3), followed by Rina consulting (57th, +1), Italconsult (67th, +1), DBA Group (113rd, new entry), Proger (114th, new entry), IRD Engineering (128th, +2), Italferr (144th, -2), Manens-Tifs (145th, -7), F&M Ingegneria (149th, +50), Technital (169th, +16), 3TI Progetti (204th, -23). The Italian companies achieve their turnover mainly in the transportation, industry-petroleum and general building sectors. These 11 companies are located in four Italian regions (Lombardia, Liguria, Lazio, Veneto).

Among non-Italian companies with branches in Italy and associated with OICE we note, in particular, Jacobs ranked 5th (+3), Systra 25th (+4), Tractebel 28th (+4) and Artelia 36th (+10). Jacobs show a preference for industrial and transportation sectors, Systra show a clear preference for transportation sector while Tractebel for power sector. Artelia has a diversified business, with a preference for general building.

The following two tables summarized the data of the ENR's Top 225 International Design Firms survey.

Table 6.1 How the top international design firms shared the 2021 market, \$ million

Nationality	# of firms	Int'l revenue	Middle east	Asia	Aus./Oceania	Africa	Europe	US	Canada	Lat.Amer./Carib.
American	79	15692	1188	2447	1005	267	5559	NA	3946	1281
Australian	5	5597	565	716	408	184	1169	1630	743	182
Canadian	4	12253	367	551	1424	204	3822	5504	NA	382
Chinese	23	4505	395	3174	31	361	392	10	1	140
European	54	22727	1891	2245	1296	880	9419	4792	952	1252
British	3	5414	351	686	766	257	438	2012	723	181
Dutch	5	5678	404	547	367	79	2064	1914	86	217
French	6	2295	311	314	92	188	1164	61	51	116
German	4	563	161	136	0	27	181	45	0	13
Italian	11	904	175	96	21	110	422	70	5	7
Spanish	8	1174	147	88	10	52	330	78	12	459
Other	17	6698	344	378	41	168	4820	611	77	258
Japanese	10	1021	34	530	19	66	299	23	21	30
Korean	11	596	122	264	2	23	89	17	0	78
All Others	39	5231	1722	696	451	541	367	1274	142	37
	225	67622	6286	10624	4635	2525	21116	13250	5805	3382

Source: ENR

Table 6.2 Global top 10 and Italian firms, 2021.

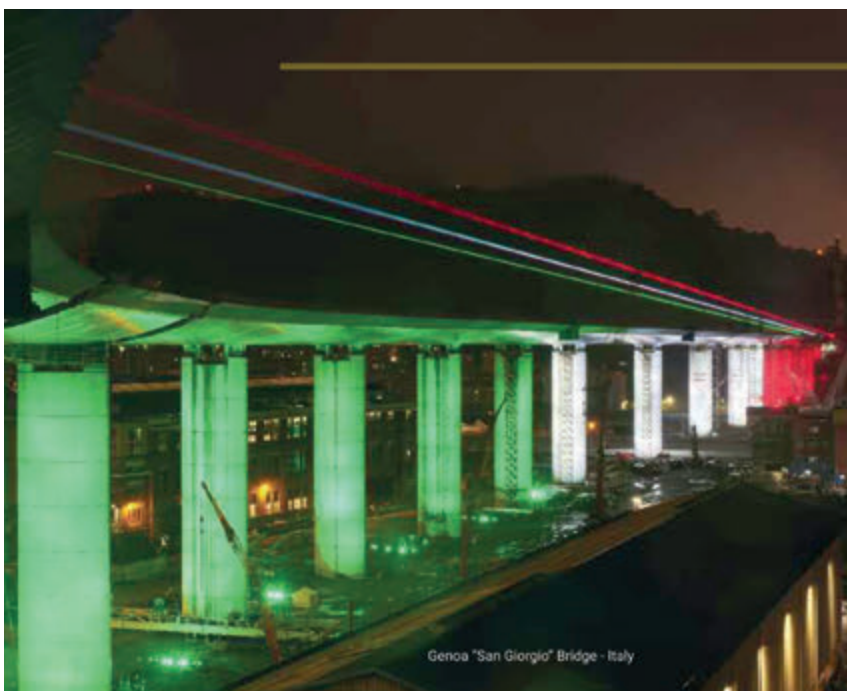
Rank	Firm	Int. Revenue in \$ mil.	% of total revenue	General Building	Manufacturing	Power	Water Supply	Sewer / Waste	Indus. / Petroleum	Transportation	Hazardous Waste	Telecom
1	WSP Global (Canada)	5417	79	21	1	9	2	2	3	51	5	1
2	Worley (Australia)	4128	87	1	0	11	1	0	73	1	2	0
3	Aecom (USA)	3768	48	23	0	3	12	4	2	47	8	1
4	Arcadis/Callison (Olanda)	3732	92	32	3	6	9	3	1	22	24	0
5	Jacobs (USA)	3582	34	6	2	12	10	5	20	32	13	0
6	SNC-Lavalin (Canada)	3295	86	17	0	7	4	2	3	46	7	0
7	Wood (UK)	2703	87	3	5	9	3	2	49	8	9	0
8	Stantec (Canada)	2525	73	24	1	9	17	12	5	22	2	0
9	Fluor (USA)	2355	67	0	0	0	0	0	99	0	0	0
10	Dar group (EAU)	2002	100	53	0	2	1	3	1	39	0	1
33	Maire Tecnimont	380	90	0	0	0	0	0	100	0	0	0
57	Rina Consulting	181	67	0	0	0	0	0	0	0	0	0
67	Italconsult Spa	128	96	26	0	12	10	4	0	48	0	0
113	DBA Group Spa	48	51	3	0	1	0	0	76	16	0	2
114	Proger Spa	47	42	46	0	6	0	0	49	0	0	0
128	Ird Engineering Srl	32	98	1	0	0	0	2	0	93	0	0
144	Italferr Spa	22	7	0	0	0	0	0	0	100	0	0
145	Manens-Tifs Spa	27	55	100	0	0	0	0	0	0	0	0
149	F&M Ingegneria	19	57	99	0	0	0	0	0	0	0	0
169	Technital	16	48	0	0	0	38	0	0	62	0	0
204	3TI Progetti	10	41	45	0	0	0	0	0	55	0	0

Source: ENR

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Odense University Hospital - Denmark

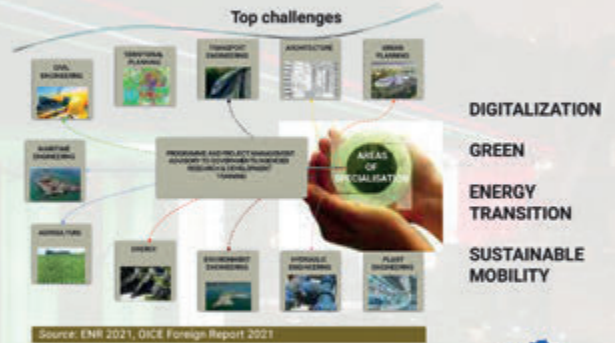


Rome Tiburtina Station - Italy



Strategic Ports - Kuwait

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Source: ENR 2021, OICE Foreign Report 2021

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AICOM Engineering Systems S.p.A.
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COOPROGETTI società cooperativa
COPACO ARCHITETTURA & INGEGNERIA s.r.l.
CREW Cremonesi Workshop s.r.l.
DINAMICA s.r.l.
DUEGIELLE s.r.l.
E.co s.r.l.
E.D.IN. s.r.l. - società di ingegneria
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ENDACO s.r.l. - società di ingegneria
ENSER s.r.l. società di Ingegneria
ERRE.VI.A. Ricerca Viabilità Ambiente s.r.l.
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ETATEC STUDIO PAOLETTI s.r.l.

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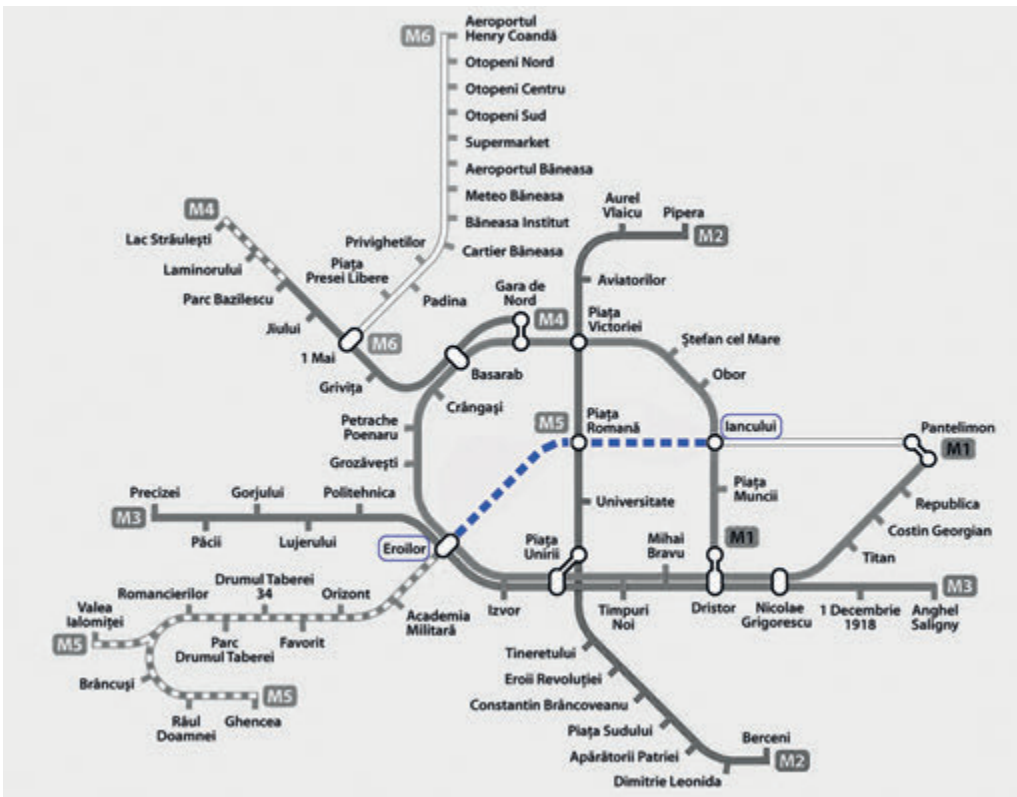
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