ENRICH IN BRAZIL

Enhancing science, innovation and business connections between Brazil and Europe

Facts & Figures: Get to know the European Union and its Innovative Industries

ENRICH is an initiative of the European Union, executed in Brazil by the CEBRABIC project, that has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 733531. Responsibility for the information and views set out in this publication lies entirely with the authors.

ENRICH
EUROPEAN NETWORK OF RESEARCH AND INNOVATION CENTRES AND HUBS, BRAZIL

Facts & Figures: Get to know the European Union and its Innovative Industries

Table of Contents

ENRICH
EUROPEAN NETWORK OF RESEARCH AND INNOVATION CENTRES AND HUBS, BRAZIL

1.INTRODUCTION

Europe can be considered the cradle of the Western civilization. Being known as "the old continent", several of its composing countries have spread its culture, languages, and tradition to the whole world. This, however, was not a smooth process – wars and internal disputes marked this centuries-long process, culminating in the Second World War, the largest conflict in history. One of its aftermaths was the necessity of creating a united Europe, based on an economic alliance between its country members, to avoid possible new conflicts. The initiative, born in 1958 as the European Economic Community (EEC), with six country members, thrived and expanded its role to further areas, aggregating more 22 members since then. The name European Union (EU), adopted in 1993, reflects this development, based on peace, stability, and prosperity.

Currently, the Union is composed of 28 countries: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom. The euro (€), the second most accepted currency internationally, is the official currency of 19 out of 28 EU member countries. These countries are collectively known as the Eurozone.

As of 2017, the European Union's GDP was US$ 17.3 trillion (~€14.4 trillion), being the second largest nominal GDP in the world. Besides that, the European Union has an average Human Development Index of 0.874, one of the highest in the world, and shows equally high figures on trade and GDP per capita.

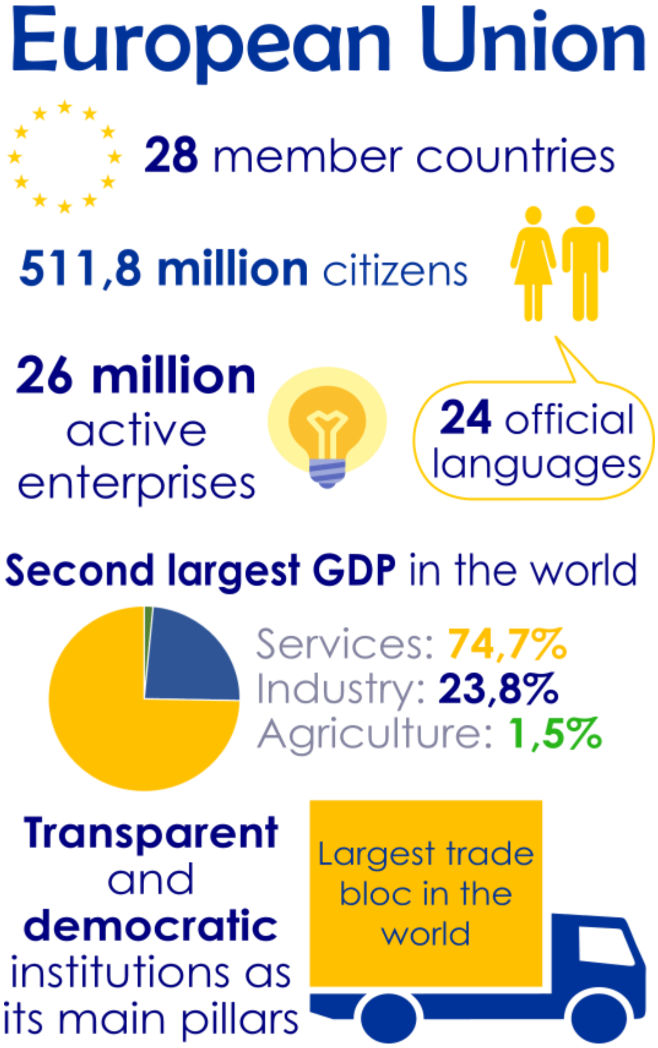


Figure 1: European Union Key Facts (Sources: EU and Eurostat)

This prosperous scenario, allied with the EU founding principles, with institutions based on transparency and democracy, is a fruitful ground for innovative and state-of-the-art initiatives. Likewise, being a single market means that people, goods, services,

and money can move freely inside the European Union's borders, strengthening the advantage to businesses located within the Union. Besides that, as an economic union, efforts to harmonize rules and standards throughout all countries are taking place, such as in e.g. education and health systems. This strongly helps in reducing costs and bureaucracy when transitioning from one country to another, for instance, thus further solidifying the integration between them.

Despite the economic union, the EU's constituent countries still maintain their autonomy to decide on topics such as national tax systems, separate national markets for some goods and services (financial services, energy, transport), or varied e-commerce standards. Such autonomy, plus the diversity in economic and geographic conditions, business practices, languages, and culture across member countries leads to the need of understanding the specificities of each country in order to plan the establishment of a business in the EU, and to achieve a successful result from that.

About this report

The ENRICH in Brazil Report "Facts & Figures: Get to know the European Union and its Innovative Industries" has been prepared to provide an overview of the EU and its business milieu. It presents general information about the EU and its constituent countries, as well as information on cultural, political, economic, and financial conditions. Moreover, it provides more detailed knowledge on the Union's most relevant industries, and on how to benefit from this scenario by establishing businesses and partnerships with European institutions.

Figure 2: Location of the European Union's Constituent Countries (Source: Mapchart.net)

2. INDIVIDUAL FACTS AND FIGURES

Austria

Capital: **Vienna**

Official EU language(s): **German**

Currency: **euro**. Euro area member since 1 January 1999

Political system[1]: Federal parliamentary republic with a head of government - the chancellor - and a head of state - the president.

Research and Development expenditure in 2016 (% of GDP)[2]: **3.09%**

GDP composition (2017 est.)[3]: agriculture **1.2%,** industry **28.4%,** services **70.4%**

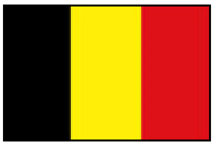
Overview[3]: Austria is a well-developed market economy with skilled labour force and high standard of living. It is closely tied to other EU economies, especially Germany's, but also the US', its third-largest trade partner. Its economy features a large service sector, a sound industrial sector, and a small, but highly developed agricultural sector.

Austrian economic growth has strengthened, with a 2.9% increase in GDP in 2017. Austrian exports, accounting for around 60% of the GDP, were up 8.2% in 2017. Austria's unemployment rate fell by 0.3 p.p. to 5.5% in 2017, which is low by European standards, but still at its second highest rate since the end of World War II, driven by an increased number of refugees and EU migrants entering the labour market.

Austria's fiscal position compares favourably with other euro-zone countries. The budget deficit stood at a low 0.7% of GDP in 2017 and public debt declined again to 78.4% of GDP in 2017, after reaching a post-war high 84.6% in 2015. The Austrian government has announced it will balance the fiscal budget in 2019. Several external risks, such as Austrian banks' exposure to Central and Eastern Europe, the refugee crisis, and continued unrest in Russia/Ukraine, have eased in 2017, but are still a factor for the Austrian economy. Exposure to the Russian banking sector and a deep energy relationship with Russia present additional risks.

Austria elected a new pro-business government in October 2017 that campaigned on promises to reduce bureaucracy, improve public sector efficiency, reduce labour market protections, and provide positive investment incentives.

Belgium



Capital: **Brussels**

Official EU language(s): **Dutch, French** and **German**

Currency: **euro**. Euro area member since 1 January 1999.

Political system[1]: Federal constitutional monarchy in which the king is the head of state and the prime minister is the head of government in a multi-party system.

Research and Development expenditure in 2016 (% of GDP)[2]: **2.49%**

GDP composition (2017 est.)[3]: agriculture **0.7%**; industry **21.8%**, services **77.5%**

Overview[3]: Belgium's central geographic location and highly developed transport network have helped develop a well-diversified economy, with a broad mix of transport, services, manufacturing, and high tech. Service and high-tech industries are concentrated in the northern Flanders region while the southern region of Wallonia is home to industries like coal and steel manufacturing. Belgium is completely reliant on foreign sources of fossil fuels, and the planned closure of its seven nuclear plants by 2025 should increase its dependence on foreign energy. Its role as a regional logistical hub makes its economy vulnerable to shifts in foreign demand, particularly with EU trading partners. Roughly three-quarters of Belgium's trade is with other EU countries, and the port of Zeebrugge conducts almost half its trade with the United Kingdom alone, leaving Belgium's economy vulnerable to the outcome of negotiations on the UK's exit from the EU.

Belgium's GDP grew by 1.7% in 2017 and the budget deficit was 1.5% of GDP. Unemployment stood at 7.3%, however the unemployment rate is lower in Flanders than Wallonia, 4.4% compared to 9.4%, because of industrial differences between the regions. The economy largely recovered from the March 2016 terrorist attacks that mainly impacted the Brussels region tourist and hospitality industry. Prime Minister Charles Michel's center-right government has pledged to further reduce the deficit in response to EU pressure to decrease Belgium's high public debt of about 104% of GDP, but such efforts could also dampen economic growth. In addition to restrained public spending, low wage growth and higher inflation promise to curtail a more robust recovery in private consumption.

The government has pledged to pursue a reform program to improve Belgium's competitiveness, including changes to labour market rules and welfare benefits. These changes have generally made Belgian wages more competitive regionally, but risk worsening tensions with trade unions and triggering extended strikes. In 2017, Belgium approved a tax reform plan to ease corporate rates from 33% to 29% by 2018 and down to 25% by 2020. The tax plan also included benefits for innovation and SMEs, intended to spur competitiveness and private investment.

Bulgaria

Capital: **Sofia**

Official EU language(s): **Bulgarian**

Currency: **Bulgarian lev (BGN)**. Bulgaria has committed to adopt the euro once it fulfils the necessary conditions.

Political system[1]: Parliamentary republic. The head of government - the prime minister - holds the most powerful executive position. The head of state - the president - primarily holds representative powers as well as limited veto powers.

Research and Development expenditure in 2016 (% of GDP)[2]: **0.78%**

GDP composition (2017 est.)[3]: agriculture **4.3%**; industry **28.0%**, services **67.7%**

Overview[3]: Bulgaria, a former communist country that entered the EU in 2007, has an open economy that historically has demonstrated strong growth, but its per-capita income remains the lowest among EU members and its reliance on energy imports and foreign demand for its products makes its growth sensitive to external market conditions.

The government undertook significant structural economic reforms in the 1990s to move the economy from a centralized, planned economy to a more liberal, market-driven economy. These reforms included privatization of state-owned enterprises, liberalization of trade, and strengthening of the tax system - changes that initially caused some economic hardships but later helped to attract investment, spur growth, and make gradual improvements to living conditions. From 2000 through 2008, Bulgaria maintained robust, average annual real GDP growth in excess of 6%, which was followed by a deep recession in 2009 as the financial crisis caused domestic demand, exports, capital inflows and industrial production to contract, prompting the government to rein in spending. Real GDP growth remained slow - less than 2% annually - until 2015, when demand from EU countries for Bulgarian exports, plus an inflow of EU development funds, boosted growth to more than 3%. In recent years, strong domestic demand combined with low international energy prices have contributed to Bulgaria's economic growth approaching 4% and have also helped to ease inflation. Bulgaria's prudent public financial management contributed to budget surpluses both in 2016 and 2017.

Croatia

Capital: **Zagreb**

Official EU language(s): **Croatian**

Currency: **Croatian Kuna (HRK)**. Croatia has committed to adopt the euro once it fulfils the necessary conditions.

Political system[1]: Parliamentary republic in which the head of government - the prime minister - and the head of state - the president - represent the executive power and the state at home and abroad.

Research and Development expenditure in 2016 (% of GDP)[2]: **0.85%**

GDP composition (2017 est.)[3]: agriculture **3.3%**; industry **34.3%**, services **62.9%**

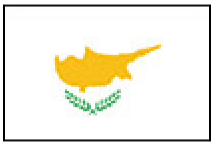
Overview[3]: Though still one of the wealthiest of the former Yugoslav republics, Croatia's economy suffered badly during the 1991-95 war. The country's output during that time collapsed, and Croatia missed the early waves of investment in Central and Eastern Europe that followed the fall of the Berlin Wall. Between 2000 and 2007, however, Croatia's economic fortunes began to improve with moderate but steady GDP growth between 4% and 6%, led by a rebound in tourism and credit-driven consumer spending. Inflation over the same period remained tame and the currency, the kuna, stable.

Croatia experienced an abrupt slowdown in the economy in 2008; economic growth was stagnant or negative in each year between 2009 and 2014, but has picked up since the third quarter of 2014, ending 2017 with an average of 2.8% growth. Challenges re-

main including uneven regional development, a challenging investment climate, an inefficient judiciary, and “brain drain” of educated young professionals seeking higher salaries elsewhere in the EU. In 2016, Croatia revised its tax code to stimulate growth from domestic consumption and foreign investment. Income tax reduction began in 2017, and in 2018 various business costs were removed from income tax calculations. At the start of 2018, the government announced its economic reform plan, slated for implementation in 2019.

Tourism is one of the main pillars of the Croatian economy, comprising 19.6% of Croatia’s GDP. Croatia is working to become a regional energy hub, and is undertaking plans to open a floating liquefied natural gas (LNG) regasification terminal by the end of 2019 or early in 2020 to import LNG for re-distribution in southeast Europe.

Cyprus



Capital: **Nicosia**

Official EU language(s): **Greek**

Currency: **euro**. Euro area member since 1 January 2008

Political system[1]: Presidential republic. The president is both head of state and government. Despite joining the EU as a de facto divided island, the whole of Cyprus is EU territory.

Research and Development expenditure in 2016 (% of GDP)[2]: **0.5%**

GDP composition (2017 est.)[3]: agriculture **2.3%**; industry **11.0%**, services **86.8%**

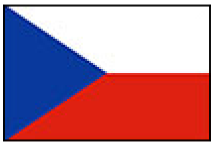
Overview[3]: The area of the Republic of Cyprus under government control has a market economy dominated by a services sector that accounts for more than four-fifths of GDP. Tourism, finance, shipping, and real estate have traditionally been the most important services. Cyprus has been a member of the EU since May 2004 and adopted the euro as its national currency in January 2008.

During the first five years of EU membership, the Cyprus economy grew at an average rate of about 4%, with unemployment between 2004 and 2008 averaging about 4%. However, the economy tipped into recession in 2009 as the ongoing global financial crisis and resulting low demand hit the tourism and construction sectors. Following numerous downgrades of its credit rating, Cyprus lost access to international capital markets in May 2011. In July 2012, Cyprus became the fifth euro-zone government to request an economic bailout program from the European Commission, European Central Bank and the International Monetary Fund - known collectively as the "Troika."

Shortly after the election of President Nikos Anastasiades in February 2013, Cyprus reached an agreement with the Troika on a € 10.8 billion bailout that triggered a two-week bank closure and the imposition of capital controls that remained partially in place until April 2015. Cyprus' two largest banks merged and the combined entity was recapitalized through conversion of some large bank deposits to

shares and imposition of losses on bank bondholders. As with other EU countries, the Troika conditioned the bailout on passing financial and structural reforms and privatizing state-owned enterprises. Despite downsizing and restructuring, the Cypriot financial sector remains burdened by the largest stock of non-performing loans in the euro zone, equal to nearly half of all loans. Since the bailout, Cyprus has received positive appraisals by the Troika and outperformed fiscal targets but has struggled to overcome political opposition to bailout-mandated legislation, particularly regarding privatizations. Cyprus emerged from recession in 2015 and its economy grew 1.5% for the year, setting a positive tone for the scheduled end of the bailout program in March 2016. Growth recovered to 2.8% in 2016 and 3.4% in 2017, while unemployment dropped to 11.8%. The rate of non-performing loans (NPLs) is still very high at around 49%, and growth would accelerate if Cypriot banks could increase the pace of resolution of the NPLs.

Czech Republic



Capital: **Prague**

Official EU language(s): **Czech**

Currency: **Czech koruna (CZK)**. Czech Republic is currently preparing to adopt the euro.

Political system[1]: Parliamentary republic with a head of government - the prime minister - and a head of state - the president. The country was formed in 1993, after Czechoslovakia was split into the Czech Republic and Slovakia.

Research and Development expenditure in 2016 (% of GDP)[2]: **1.68%**

GDP composition (2017 est.)[3]: agriculture **2.5%**; industry **37.8%**, services **59.7%**

Overview[3]: The Czech Republic – also known as Czechia – is a prosperous market economy that boasts one of the highest GDP growth rates and lowest unemployment levels in the EU, but its dependence on exports makes economic growth vulnerable to contractions in external demand. Czech Republic's exports comprise some 80% of GDP and largely consist of automobiles, the country's single largest industry. Czech Republic acceded to the EU in 2004 but has yet to join the euro-zone. While the flexible koruna helps the Czech Republic weather external shocks, it was one of the world's strongest performing currencies in 2017, appreciating approximately 16% relative to the US dollar after the central bank (Czech National Bank - CNB) in early April ended its cap on the currency's value, which it had maintained since November 2013. The CNB hiked rates in August and November 2017 - the first rate changes in nine years - to address rising inflationary pressures brought by strong economic growth and a tight labour market.

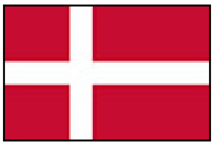
After slowly recovering from a steep recession in 2009, the Czech economy again fell into recession in 2012 and 2013 because of a slump in demand within the EU and government austerity measures. Inflows of EU development funds underpinned a rebound in 2014-15, with GDP growth reaching 4.5% in 2015, followed by a slowdown in 2016 largely due to a cyclical lag in EU funding in connection with a new EU budget

ENRICH
EUROPEAN NETWORK OF RESEARCH AND INNOVATION CENTRES AND HUBS, BRAZIL

cycle. The Czech economy was one of the EU's best performers in 2017, with broad-based growth of nearly 4.5% and an unemployment rate of 2.8%, one of the lowest rates in the EU.

In 2016, the Czech economy figured in 10th place in the Economic Complexity Index (ECI) ranking[4], what measures the knowledge intensity of an economy by considering the knowledge intensity of the products it exports. This illustrates the key position of the Czech economy inside the European Union and in the world.

Denmark



Capital: **Copenhagen**

Official EU language(s): **Danish**

Currency: **Danish krone (DKK)**. Denmark has negotiated of an opt-out from the euro and thus is not obliged to introduce it.

Political system[1]: Constitutional monarchy. It has a representative parliamentary system with a head of government - the prime minister - and a head of state - the monarch - who officially retains executive power, although duties are strictly representative and ceremonial. The kingdom also comprises 2 autonomous constituent countries in the Atlantic, neither of which are EU members: the Faroe Islands and Greenland.

Research and Development expenditure in 2016 (% of GDP)[2]: **2.87%**

GDP composition (2017 est.)[3]: agriculture **1.1%**; industry **23.7%**, services **75.2%**

Overview[3]: This thoroughly modern market economy features advanced industry with world-leading firms in pharmaceuticals, maritime shipping, and renewable energy, and a high-tech agricultural sector. Danes enjoy a high standard of living, and the Danish economy is characterized by extensive government welfare measures and an equitable distribution of income. An aging population will be a long-term issue.

Denmark's small open economy is highly dependent on foreign trade, and the government strongly supports trade liberalization. Denmark is a net exporter of food, oil, and gas and enjoys a comfortable balance of payments surplus, but depends on imports of raw materials for the manufacturing sector.

Denmark is a member of the EU but not the eurozone. Despite previously meeting the criteria to join the European Economic and Monetary Union, Denmark has negotiated an opt-out with the EU and is not required to adopt the euro.

Denmark is experiencing a modest economic expansion. The economy grew by 2.0% in 2016 and 2.1% in 2017. The expansion is expected to decline slightly in 2018. Unemployment stood at 5.5% in 2017, based on the national labour survey. The labour market was tight in 2017, with corporations experiencing some difficulty finding appropriately-skilled workers to fill billets. The Danish Government offers extensive programs to train unemployed persons to work in sectors that need qualified workers.

Denmark maintained a healthy budget surplus for many years up to 2008, but the global financial crisis swung the budget balance into deficit. Since 2014 the balance has shifted between surplus and deficit. In

2017 there was a surplus of 1.0%. The government projects a lower deficit in 2018 and 2019 of 0.7%, and public debt (EMU debt) as a share of GDP is expected to decline to 35.6% in 2018 and 34.8% in 2019. The Danish Government plans to address increasing municipal, public housing and integration spending in 2018.

Estonia

Capital: **Tallinn**

Official EU language(s): **Estonian**

Currency: **euro**. Euro area member since 1 January 2011

Political system[1]: parliamentary republic. Its head of government - the prime minister - is nominated by the president and approved by parliament. He or she is in charge of the executive power vested in government.

Research and Development expenditure in 2016 (% of GDP)[2]: **1.28%**

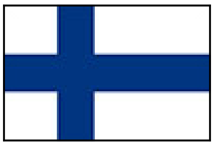
GDP composition (2017 est.)[3]: agriculture **3.4%**; industry **27.8%**, services **68.8%**

Overview[3]: Estonia, a member of the EU since 2004 and the euro zone since 2011, has a modern market-based economy and one of the higher per capita income levels in Central Europe and the Baltic region, but its economy is highly dependent on trade, leaving it vulnerable to external shocks. Estonia's successive governments have pursued a free market, pro-business economic agenda, and sound fiscal policies that have resulted in balanced budgets and the lowest debt-to-GDP ratio in the EU.

The economy benefits from strong electronics and telecommunications sectors and strong trade ties with Finland, Sweden, Germany, and Russia. The economy's 4.9% GDP growth in 2017 was the fastest in the past six years, leaving the Estonian economy in its best position since the financial crisis 10 years ago. For the first time in many years, labour productivity increased faster than labour costs in 2017. Inflation also rose in 2017 to 3.5% alongside increased global prices for food and energy, which make up a large share of Estonia's consumption basket.

Estonia is challenged by a shortage of labour, both skilled and unskilled (although the government has amended its immigration law to allow easier hiring of highly qualified foreign workers), and wage growth that outpaces productivity gains. The government is also pursuing efforts to boost productivity growth with a focus on innovations that emphasize technology start-ups and e-commerce.

Finland



Capital: **Helsinki**

Official EU language(s): **Finnish, Swedish**

Currency: **euro**. Euro area member since 1 January 1999

Political system[1]: Parliamentary republic with a head of government - the prime minister - and a head of state - the president.

Research and Development expenditure in 2016 (% of GDP)[2]: **2.75%**

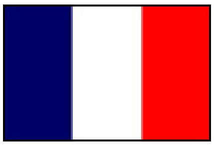
GDP composition (2017 est.)[3]: agriculture **2.7%**; industry **27.8%**, services **69.5%**

Overview[3]: Finland has a highly industrialized, largely free-market economy with per capita GDP almost as high as that of Austria and the Netherlands and slightly above that of Germany and Belgium. Trade is important, with exports accounting for over one-third of GDP in recent years. The government is open to, and actively takes steps to attract, foreign direct investment.

Finland is historically competitive in manufacturing, particularly in the wood, metals, engineering, telecommunications, and electronics industries. Finland excels in export of technology as well as promotion of startups in the information and communications technology, gaming, cleantech, and biotechnology sectors. Except for timber and several minerals, Finland depends on imports of raw materials, energy, and some components for manufactured goods. Because of the cold climate, agricultural development is limited to maintaining self-sufficiency in basic products. Forestry, an important export industry, provides a secondary occupation for the rural population.

Finland had been one of the best performing economies within the EU before 2009 and its banks and financial markets avoided the worst of global financial crisis. However, the world slowdown hit exports and domestic demand hard in that year, causing Finland's economy to contract from 2012 to 2014. The recession affected general government finances and the debt ratio. The economy returned to growth in 2016, posting a 1.9% GDP increase before growing an estimated 3.3% in 2017, supported by a strong increase in investment, private consumption, and net exports. GDP is expected to grow a rate of 2-3% in the next few years.

France



Capital: **Paris**

Official EU language(s): **French**

Currency: **euro**. Euro area member since 1 January 1999

Political system[1]: Semi-presidential republic with a head of government - the prime minister - appointed by the president who is the directly elected head of state. France's territory consists of 18 administrative regions - 13 metropolitan (i.e. European France) and 5 overseas regions. All 5 of the overseas regions, as well as Saint-Martin (a French territory in the Caribbean) are considered part of the EU (with the status of outermost region).

Research and Development expenditure in 2016 (% of GDP)[2]: **2.25%**

GDP composition (2017 est.)[3]: agriculture **2.0%**; industry **20.1%**, services **77.9%**

Overview[3]: The French economy is diversified across all sectors. The government has partially or fully privatized many large companies, including Air France, France Telecom, Renault, and Thales. However, the government maintains a strong presence in some sectors, particularly power, public transport, and defence industries. France is the most visited country in the world with 89 million foreign tourists in 2017. France's leaders remain committed to a capitalism in which they maintain social equity by means of laws,

tax policies, and social spending that mitigate economic inequality.

France's real GDP grew by 1.9% in 2017, up from 1.2% the year before. The unemployment rate (including overseas territories) increased from 7.8% in 2008 to 10.2% in 2015, before falling to 9.0% in 2017. Youth unemployment in metropolitan France decreased from 24.6% in the fourth quarter of 2014 to 20.6% in the fourth quarter of 2017.

France's public finances have historically been strained by high spending and low growth. In 2017, the budget deficit improved to 2.7% of GDP, bringing it in compliance with the EU-mandated 3% deficit target. Meanwhile, France's public debt rose from 89.5% of GDP in 2012 to 97% in 2017.

Since entering office in May 2017, President Emmanuel Macron launched a series of economic reforms to improve competitiveness and boost economic growth. President Macron campaigned on reforming France's labour code and in late 2017 implemented a range of reforms to increase flexibility in the labour market by making it easier for firms to hire and fire and simplifying negotiations between employers and employees. In addition to labour reforms, President Macron's 2018 budget cuts public spending, taxes, and social security contributions to spur private investment and increase purchasing power. The government plans to gradually reduce corporate tax rate for businesses from 33.3% to 25% by 2022.

Germany

Capital: **Berlin**

Official EU language(s): **German**

Currency: **euro**. Euro area member since 1 January 1999

Political system[1]: Federal parliamentary republic with a head of government - the chancellor - and a head of state - the president - whose primary responsibilities are representative.

Research and Development expenditure in 2016 (% of GDP)[2]: **2.94%**

GDP composition (2017 est.)[3]: agriculture **0.6%**; industry **30.1%**, services **69.3%**

Overview[3]: The German economy - the fifth largest economy in the world in PPP terms and Europe's largest - is a leading exporter of machinery, vehicles, chemicals, and household equipment and benefits from a highly skilled labour force. Like its Western European neighbours, Germany faces significant demographic challenges to sustained long-term growth. Low fertility rates and a large increase in net immigration are increasing pressure on the country's social welfare system and necessitate structural reforms.

Reforms launched by the government of Chancellor Gerhard Schröder (1998-2005), deemed necessary to address chronically high unemployment and low average growth, contributed to strong economic growth and falling unemployment. These advances, as well as a government subsidized, reduced working hour scheme, help explain the relatively modest in-

crease in unemployment during the 2008-09 recession - the deepest since World War II. The German Government introduced a minimum wage in 2015 that increased to $9.79 (8.84 euros) in January 2017.

Stimulus and stabilization efforts initiated in 2008 and 2009 and tax cuts introduced in Chancellor Angela Merkel's second term increased Germany's total budget deficit - including federal, state, and municipal - to 4.1% in 2010, but slower spending and higher tax revenues reduced the deficit to 0.8% in 2011 and in 2017 Germany reached a budget surplus of 0.7%. A constitutional amendment approved in 2009 limits the federal government to structural deficits of no more than 0.35% of GDP per annum as of 2016, though the target was already reached in 2012. Domestic consumption, investment, and exports are likely to drive German GDP growth in 2018, and the country's budget and trade surpluses are likely to remain high.

Greece

Capital: **Athens**

Official EU language(s): **Greek**

Currency: **euro**. Euro area member since 1 January 2001

Political system[1]: parliamentary republic with a head of government - the prime minister - who has the most political power, and the head of state - the president - whose duties are largely ceremonial. The executive power is exercised by the government.

Research and Development expenditure in 2016 (% of GDP)[2]: **1.01%**

GDP composition (2017 est.)[3]: agriculture **4.0%**; industry **16.0%**, services **80.0%**

Overview[3]: Greece has a capitalist economy with a public sector accounting for about 40% of GDP and with per capita GDP about two-thirds that of the leading euro-zone economies. Tourism provides 18% of GDP. Immigrants make up nearly one-fifth of the work force, mainly in agricultural and unskilled jobs. Greece is a major beneficiary of EU aid, equal to about 3.3% of annual GDP.

The Greek economy averaged growth of about 4% per year between 2003 and 2007, but the economy went into recession in 2009 as a result of the world financial crisis, tightening credit conditions, and Athens' failure to address a growing budget deficit. By 2013, the economy had contracted 26%, compared with the pre-crisis level of 2007. Economic issues prompted major credit rating agencies to downgrade Greece's international debt rating in late 2009 and led the country into a financial crisis. Under intense pressure from the EU and international market participants, the government accepted a bailout program that called on Athens to cut government spending, decrease tax evasion, overhaul the civil-service, health-care, and pension systems, and reform the labour and product markets.

The IMF and euro-zone governments provided Greece emergency short- and medium-term loans worth €110 billion so that the country could make debt repayments to creditors. Greece, however, struggled to meet the targets set by the EU and the IMF, especially after Eurostat - the EU's statistical of-

fice - revised upward Greece's deficit and debt numbers for 2009 and 2010. European leaders and the IMF agreed in October 2011 to provide Athens a second bailout package of €130 billion, including €48 billion to ensure the Greek banking system was adequately capitalized.

In 2014, the Greek economy began to turn the corner on the recession. Greece achieved three significant milestones: balancing the budget - not including debt repayments; issuing government debt in financial markets for the first time since 2010; and generating 0.7% GDP growth — the first economic expansion since 2007. In 2017, Greece saw improvements in GDP and unemployment, and reduced its deficit to 1.3%. However, unfinished economic reforms, a massive non-performing loan problem, and ongoing uncertainty regarding the political direction of the country hold the economy back.

Hungary

Capital: **Budapest**

Official EU language(s): **Hungarian**

Currency: **Hungarian Forint (HUF)**. Hungary is currently preparing to adopt the euro.

Political system[1]: parliamentary republic with a head of government - the prime minister - who exercises executive power and a head of state - the president - whose primary responsibilities are representative.

Research and Development expenditure in 2016 (% of GDP)[2]: **1.21%**

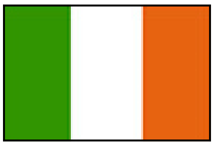
GDP composition (2017 est.)[3]: agriculture **4.4%**; industry **30.9%**, services **64.7%**

Overview[3]: Hungary has transitioned from a centrally planned to a market-driven economy with a per capita income approximately two-thirds of the EU-28 average. Since 2010 however, the government has become more involved in managing the economy. Budapest has implemented unorthodox economic policies to maintain fiscal balance, as well as a six-year wage increase plan to boost household consumption. Economic growth depends highly on exports, making Hungary vulnerable to external market shocks.

Following the fall of communism in 1990, Hungary experienced a drop-off in exports and financial assistance from the former Soviet Union. Hungary embarked on a series of economic reforms, including privatization of state-owned enterprises and reduction of social spending programs, to shift from a centrally planned to a market-driven economy, and to reorient its economy towards trade with the West. These efforts helped to spur growth, attract investment, and reduce Hungary's debt burden and fiscal deficits. Despite these reforms, living conditions for the average Hungarian initially deteriorated as inflation increased and unemployment reached double digits. Conditions slowly improved over the 1990s as the reforms came to fruition and export growth accelerated. Economic policies instituted during that decade helped position Hungary to join the European Union in 2004. Hungary has not yet joined the euro-zone. Hungary suffered a historic economic contraction as a result of the global economic slowdown in 2008-09 as export demand and domestic consumption dropped, prompting it to take an IMF-EU financial assistance package.

Hungary's public debt (at 74.5% of GDP) is still high compared to EU peers in Central Europe. Real GDP growth has been robust in the past few years due to increased EU funding, higher EU demand for Hungarian exports, and a rebound in domestic household consumption. To further boost household consumption ahead of the 2018 election, the government embarked on a six-year phased increase to minimum wages and public sector salaries, decreased taxes on foodstuffs and services, cut the personal income tax from 16% to 15%, and implemented a uniform 9% business tax for small and medium-sized enterprises and large companies. Real GDP growth slowed in 2016 due to a cyclical decrease in EU funding, but increased to 3.8% in 2017 as the government pre-financed EU funded projects ahead of the 2018 election.

Ireland



Capital: **Dublin**

Official EU language(s): **Irish, English**

Currency: **euro**. Euro area member since 1 January 1999

Political system[1]: parliamentary republic consisting of 26 counties. The head of government - the prime minister - is appointed by the president after nomination by the Lower House (Dail) and exercises executive power. The head of state – the president – mostly has ceremonial powers.

Research and Development expenditure in 2016 (% of GDP)[2]: **1.18%**

GDP composition (2017 est.)[3]: agriculture **1.0%**; industry **38.2%**, services **60.7%**

Overview[3]: Ireland is a small, modern, trade-dependent economy. GDP growth averaged 6% in 1995-2007, but economic activity dropped sharply during the world financial crisis and the subsequent collapse of its domestic property market and construction industry during 2008-11. Faced with sharply reduced revenues and a burgeoning budget deficit from efforts to stabilize its fragile banking sector, the Irish Government introduced the first in a series of draconian budgets in 2009.

These measures were not sufficient to stabilize Ireland's public finances. In 2010, the budget deficit reached 32.4% of GDP - the world's largest deficit, as a percentage of GDP. In late 2010, the former government agreed to a $92 billion loan package from the EU and IMF to help Dublin recapitalize Ireland's banking sector and avoid defaulting on its sovereign debt. In March 2011, the government intensified austerity measures to meet the deficit targets under Ireland's EU-IMF bailout program. In late 2013, Ireland formally exited the program, benefiting from its strict adherence to deficit-reduction targets and success in refinancing a large amount of banking-related debt. In 2014, the economy rapidly picked up. In late 2014, the government introduced a fiscally neutral budget, marking the end of the austerity program. Continued growth of tax receipts has allowed the government to lower some taxes and increase public spending while keeping to its deficit-reduction targets.

In 2015, GDP growth exceeded 26%. The magnitude of the increase reflected one-off statistical revisions

rather than real gains in the domestic economy, which was nevertheless still growing. Growth moderated to around 4.1% in 2017, but the recovering economy assisted lowering the deficit to 0.6% of GDP.

Ireland's low corporation tax of 12.5% and a talented pool of high-tech laborers have been some of the key factors in encouraging business investment. Loose tax residency requirements made Ireland a common destination for international firms seeking to pay less taxes. In 2014, amid growing international pressure, the Irish government announced it would phase in more stringent tax laws, effectively closing a commonly used loophole. The Irish economy continued to grow in 2017 and is forecast to do so through 2019, supported by a strong export sector, robust job growth, and low inflation, to the point that the Government must now address concerns about overheating and potential loss of competitiveness.

Italy

Capital: **Rome**

Official EU language(s): **Italian**

Currency: **euro**. Euro area member since 1 January 1999

Political system[1]: Parliamentary republic with a head of government - the prime minister - appointed by the president and a head of state - the president. The Parliament is composed of 2 houses: the Chamber of Deputies and the Senate of the Republic.

Research and Development expenditure in 2016 (% of GDP)[2]: **1.29%**

GDP composition (2017 est.)[3]: agriculture **2.1%**; industry **24.0%**, services **73.9%**

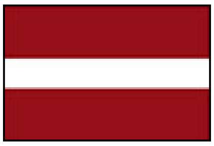
Overview[3]: Italy's economy comprises a developed industrial north, dominated by private companies, and a less-developed, highly subsidized, agricultural south, with a legacy of unemployment and underdevelopment. The Italian economy is driven in large part by the manufacture of high-quality consumer goods produced by small and medium-sized enterprises, many of them family-owned. Italy also has a sizable underground economy, which by some estimates accounts for as much as 17% of GDP. These activities are most common within the agriculture, construction, and service sectors.

Italy is the third-largest economy in the euro zone, but its exceptionally high public debt and structural impediments to growth have rendered it vulnerable to scrutiny by financial markets. Public debt has increased steadily since 2007, reaching 131% of GDP in 2017.

Investor concerns about Italy and the broader euro-zone crisis eased in 2013, bringing down Italy's borrowing costs on sovereign government debt from euro-era records. The government still faces pressure from investors and European partners to sustain its efforts to address Italy's longstanding structural economic problems, including labour market inefficiencies, a sluggish judicial system, and a weak banking sector. Italy's economy returned to modest growth in late 2014 for the first time since 2011. In 2015-16, Italy's economy grew at about 1% each year, and in 2017 growth accelerated to 1.5% of GDP. In 2017, overall unemployment was 11.4%, but youth

unemployment remained high at 37.1%. GDP growth is projected to slow slightly in 2018.

Latvia



Capital: **Riga**

Official EU language(s): **Latvian**

Currency: **euro**. Euro area member since 1 January 2014

Political system[1]: Parliamentary republic with a head of government - the prime minister - who chooses the council of ministers and a head of state - the president - who has a largely ceremonial role and nominates the prime minister.

Research and Development expenditure in 2016 (% of GDP)[2]: **0.44%**

GDP composition (2017 est.)[3]: agriculture **3.2%**; industry **21.6%**, services **75.2%**

Overview[3]: Latvia is a small, open economy with exports contributing more than half of GDP. Due to its geographical location, transit services are highly-developed, along with timber and wood-processing, agriculture and food products, and manufacturing of machinery and electronics industries. Corruption continues to be an impediment to attracting foreign direct investment and Latvia's low birth rate and decreasing population are major challenges to its long-term economic vitality.

Latvia's economy experienced GDP growth of more than 10% per year during 2006-07, but entered a severe recession in 2008 as a result of an unsustainable current account deficit and large debt exposure amid the slowing world economy. Triggered by the collapse of its second largest bank, GDP plunged by more than 14% in 2009 and, despite strong growth since 2011, the economy took until 2017 return to pre-crisis levels in real terms. Strong investment and consumption, the latter stoked by rising wages, helped the economy grow by more than 4% in 2017, while inflation rose to 3%. Continued gains in competitiveness and investment will be key to maintaining economic growth, especially in light of unfavorable demographic trends, including the emigration of skilled workers, and one of the highest levels of income inequality in the EU.

In the wake of the 2008-09 crisis, the IMF, EU, and other international donors provided substantial financial assistance to Latvia as part of an agreement to defend the currency's peg to the euro in exchange for the government's commitment to stringent austerity measures. The IMF/EU program successfully concluded in December 2011, although, the austerity measures imposed large social costs. The majority of companies, banks, and real estate have been privatized, although the state still holds sizable stakes in a few large enterprises, including 80% ownership of the Latvian national airline. Latvia officially joined the World Trade Organization in February 1999 and the EU in May 2004. Latvia also joined the euro zone in 2014 and the OECD in 2016.

Lithuania

Capital: **Vilnius**

Official EU language(s): **Lithuanian**

Currency: **euro**. Euro area member since 1 January 2015

Political system[1]: Parliamentary republic with a head of government - the prime minister - and a head of state - the president - who appoints the prime minister. The Parliament is a single-chamber legislative body.

Research and Development expenditure in 2016 (% of GDP)[2]: **0.85%**

GDP composition (2017 est.)[3]: agriculture **3.3%**; industry **28.5%**, services **68.3%**

Overview[3]: After the country declared independence from the Soviet Union in 1990, Lithuania faced an initial dislocation that is typical during transitions from a planned economy to a free-market economy. Macroeconomic stabilization policies, including privatization of most state-owned enterprises, and a strong commitment to a currency board arrangement led to an open and rapidly growing economy and rising consumer demand. Foreign investment and EU funding aided in the transition. Lithuania joined the WTO in May 2001, the EU in May 2004, and the euro zone in January 2015, and is now working to complete the OECD accession roadmap it received in July 2015. In 2017, joined the OECD Working Group on Bribery, an important step in the OECD accession process.

The Lithuanian economy was severely hit by the 2008-09 global financial crisis, but it has rebounded and become one of the fastest growing in the EU. Increases in exports, investment, and wage growth that supported consumption helped the economy grow by 3.6% in 2017. In 2015, Russia was Lithuania's largest trading partner, followed by Poland, Germany, and Latvia; goods and services trade between the US and Lithuania totalled $2.2 billion. Lithuania opened a self-financed liquefied natural gas terminal in January 2015, providing the first non-Russian supply of natural gas to the Baltic States and reducing Lithuania's dependence on Russian gas from 100% to approximately 30% in 2016.

Lithuania's ongoing recovery hinges on improving the business environment, especially by liberalizing labour laws, and improving competitiveness and export growth, the latter hampered by economic slowdowns in the EU and Russia. In addition, a steady outflow of young and highly educated people is causing a shortage of skilled labour, which, combined with a rapidly aging population, could stress public finances and constrain long-term growth.

Luxembourg

Capital: **Luxembourg**

Official EU language(s): **French, German**

Currency: **euro**. Euro area member since 1 January 1999.

Political system[1]: Parliamentary constitutional monarchy (Grand Duchy) with a head of government - the prime minister - and a head of state - the Grand Duke

- who has only formal rights. The government exercises executive power. General elections take place every 5 years.

Research and Development expenditure in 2016 (% of GDP)[2]: **1.24%**

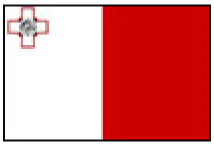
GDP composition (2017 est.)[3]: agriculture **0.2%**; industry **11.9%**, services **68.3%**

Overview[3]: This small, stable, high-income economy has historically featured solid growth, low inflation, and low unemployment. Luxembourg, the only Grand Duchy in the world, is a landlocked country in northwestern Europe surrounded by Belgium, France, and Germany. Despite its small landmass and small population, Luxembourg is the second-wealthiest country in the world when measured on a gross domestic product (PPP) per capita basis. Luxembourg has one of the highest current account surpluses as a share of GDP in the euro zone, and it maintains a healthy budgetary position, with a 2017 surplus of 0.5% of GDP, and the lowest public debt level in the region.

Since 2002, Luxembourg's government has proactively implemented policies and programs to support economic diversification and to attract foreign direct investment. The government focused on key innovative industries that showed promise for supporting economic growth: logistics, information and communications technology (ICT); health technologies, including biotechnology and biomedical research; clean energy technologies, and more recently, space technology and financial services technologies. The economy has evolved and flourished, posting strong GDP growth of 3.4% in 2017, far outpacing the European average of 1.8%.

Luxembourg remains a financial powerhouse – the financial sector accounts for more than 35% of GDP - because of the exponential growth of the investment fund sector through the launch and development of cross-border funds (UCITS) in the 1990s. Luxembourg is the world's second-largest investment fund asset domicile, after the US, with $4 trillion of assets in custody in financial institutions.

Malta



Capital: **Valletta**

Official EU language(s): **Maltese, English**

Currency: **euro**. Euro area member since 1 January 2008

Political system[1]: Single-chamber parliamentary republic with a head of government - the prime minister - and a head of state - the president - whose role is largely ceremonial.

Research and Development expenditure in 2016 (% of GDP)[2]: **0.61%**

GDP composition (2017 est.)[3]: agriculture **1.3%**; industry **10.6%**, services **88.1%**

Overview[3]: Malta's free market economy – the smallest economy in the euro-zone – relies heavily on trade in both goods and services, principally with Europe. Malta produces less than a quarter of its food needs, has limited fresh water supplies, and has few domestic energy sources. Malta's economy is de-

pendent on foreign trade, manufacturing, and tourism. Malta joined the EU in 2004 and adopted the euro on 1 January 2008.

Malta has weathered the euro-zone crisis better than most EU member states due to a low debt-to-GDP ratio and financially sound banking sector. It maintains one of the lowest unemployment rates in Europe, and growth has fully recovered since the 2009 recession. In 2014 through 2016, Malta led the euro zone in growth, expanding more than 4.5% per year.

Malta's services sector continues to grow, with sustained growth in the financial services and online gaming sectors. Advantageous tax schemes remained attractive to foreign investors, though EU discussions of anti-tax avoidance measures have raised concerns among Malta's financial services and insurance providers, as the measures could have a significant impact on those sectors. The tourism sector also continued to grow, with 2016 showing record-breaking numbers of both air and cruise passenger arrivals.

Malta's GDP growth remains strong and is supported by a strong labour market. The government has implemented new programs, including free childcare, to encourage increased labour participation. The high cost of borrowing and small labour market remain potential constraints to future economic growth. Increasingly, other EU and European migrants are relocating to Malta for employment, though wages have remained low compared to other European countries. Inflation remains low.

Netherlands

Capital: **Amsterdam**

Official EU language(s): **Dutch**

Currency: **euro**. Euro area member since 1 January 1999.

Political system[1]: Parliamentary constitutional monarchy with a head of government - the prime minister - and a head of state - the monarch. A council of ministers holds executive power. Besides 12 provinces, the Netherlands also includes 6 overseas countries and territories in the Caribbean. These territories are not part of the EU.

Research and Development expenditure in 2016 (% of GDP)[2]: **2.03%**

GDP composition (2017 est.)[3]: agriculture **1.6%**; industry **17.9%**, services **70.2%**

Overview[3]: The Netherlands, the sixth-largest economy in the European Union, plays an important role as a European transportation hub, with a consistently high trade surplus, stable industrial relations, and low unemployment. Industry focuses on food processing, chemicals, petroleum refining, and electrical machinery. A highly mechanized agricultural sector employs only 2% of the labour force but provides large surpluses for food-processing and underpins the country's status as the world's second largest agricultural exporter.

The Netherlands is part of the euro zone, and as such, its monetary policy is controlled by the European Central Bank. The Dutch financial sector is highly concentrated, with four commercial banks

possessing over 80% of banking assets, and is four times the size of Dutch GDP.

In 2008, during the financial crisis, the government budget deficit hit 5.3% of GDP. Following a protracted recession from 2009 to 2013, during which unemployment doubled to 7.4% and household consumption contracted for four consecutive years, economic growth began inching forward in 2014. Since 2010, Prime Minister Mark Rutte's government has implemented significant austerity measures to improve public finances and has instituted broad structural reforms in key policy areas, including the labour market, the housing sector, the energy market, and the pension system. In 2017, the government budget returned to a surplus of 0.7% of GDP, with economic growth of 3.2%, and GDP per capita finally surpassed pre-crisis levels. The fiscal policy announced by the new government in the 2018-2021 coalition plans for increases in government consumption and public investment, fuelling domestic demand and household consumption and investment. The new government's policy also plans to increase demand for workers in the public and private sector, forecasting a further decline in the unemployment rate, which hit 4.8% in 2017.

Poland

Capital: **Warsaw**

Official EU language(s): **Polish**

Currency: **Polish Złoty (PLN)**. Poland is currently preparing to adopt the euro.

Political system[1]: parliamentary republic with a head of government - the prime minister - and a head of state - the president. The government structure is centred on the council of ministers.

Research and Development expenditure in 2016 (% of GDP)[2]: **0.97%**

GDP composition (2017 est.)[3]: agriculture **2.4%**; industry **40.2%**, services **64.3%**

Overview[3]: Poland has the sixth-largest economy in the EU and has long had a reputation as a business-friendly country with largely sound macroeconomic policies. Since 1990, Poland has pursued a policy of economic liberalization. During the 2008-09 economic slowdown Poland was the only EU country to avoid a recession, in part because of the government's loose fiscal policy combined with a commitment to rein in spending in the medium-term Poland is the largest recipient of EU development funds and their cyclical allocation can significantly impact the rate of economic growth.

The Polish economy performed well during the 2014-17 period, with the real GDP growth rate generally exceeding 3%, in part because of increases in government social spending that have helped to accelerate consumer-driven growth. However, since 2015, Poland has implemented new business restrictions and taxes on foreign-dominated economic sectors, including banking and insurance, energy, and healthcare, that have dampened investor sentiment and has increased the government's ownership of some firms. The government reduced the retirement age in 2016 and has had mixed success in introducing new taxes and boosting tax compliance to offset

the increased costs of social spending programs and relieve upward pressure on the budget deficit. Some credit ratings agencies estimate that Poland during the next few years is at risk of exceeding the EU's 3%-of-GDP limit on budget deficits, possibly impacting its access to future EU funds. Poland's economy is projected to perform well in the next few years in part because of an anticipated cyclical increase in the use of its EU development funds and continued, robust household spending.

Portugal

Capital: **Lisbon**

Official EU language(s): **Portuguese**

Currency: **euro**. Euro area member since 1 January 1999.

Political system[1]: Semi-presidential republic with a head of government - the prime minister - and a head of state - the president - who has power to appoint the prime minister and other government members.

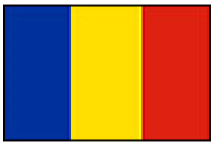
Research and Development expenditure in 2016 (% of GDP)[2]: **1.27%**

GDP composition (2017 est.)[3]: agriculture **2.2%**; industry **22.1%**, services **75.7%**

Overview[3]: Portugal has become a diversified and increasingly service-based economy since joining the European Community - the EU's predecessor - in 1986. Over the following two decades, successive governments privatized many state-controlled firms and liberalized key areas of the economy, including the financial and telecommunications sectors. The country joined the Economic and Monetary Union in 1999 and began circulating the euro on 1 January 2002 along with 11 other EU members.

The economy grew by more than the EU average for much of the 1990s, but the rate of growth slowed in 2001-08. After the global financial crisis in 2008, Portugal's economy contracted in 2009 and fell into recession from 2011 to 2013, as the government implemented spending cuts and tax increases to comply with conditions of an EU-IMF financial rescue package, signed in May 2011. Portugal successfully exited its EU-IMF program in May 2014, and its economic recovery gained traction in 2015 because of strong exports and a rebound in private consumption. GDP growth accelerated in 2016, and probably reached 2.5 % in 2017. Unemployment remained high, at 9.7% in 2017, but has improved steadily since peaking at 18% in 2013. The budget deficit fell from 11.2% of GDP in 2010 to 1.8% in 2017, the country's lowest since democracy was restored in 1974, and surpassing the EU and IMF projections of 3%. Portugal exited the EU's excessive deficit procedure in mid-2017.

Romania



Capital: **Bucharest**

Official EU language(s): **Romanian**

Currency: **Romanian Leu (RON)**. Romania has committed the euro once it fulfils the necessary conditions.

Political system[1]: semi-presidential republic with a head of government - the prime minster - and a head

of state - the president. Executive functions are held by both government and the president.

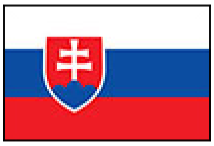
Research and Development expenditure in 2016 (% of GDP)[2]: **0.48%**

GDP composition (2017 est.)[3]: agriculture **4.2%**; industry **33.2%**, services **64.4%**

Overview[3]: Romania, which joined the EU on 1 January 2007, began the transition from a planned economy in 1989 with a largely obsolete industrial base and unsuited to the country's needs. Romania's macroeconomic gains have only recently started to spur creation of a middle class and to address Romania's widespread poverty. In the aftermath of the global financial crisis, Romania signed a $26 billion emergency assistance package from the IMF, the EU, and other international lenders, but GDP contracted until 2011. In March 2011, Romania and the IMF/EU/World Bank signed a 24-month precautionary standby agreement, worth $6.6 billion, to promote fiscal discipline, encourage progress on structural reforms, and strengthen financial sector stability; no funds were drawn. In September 2013, Romanian authorities and the IMF/EU agreed to a follow-on standby agreement, worth $5.4 billion, to continue with reforms. This agreement expired in September 2015, and no funds were drawn. Progress on structural reforms has been uneven, and the economy still is vulnerable to external shocks.

Economic growth rebounded in the 2013-17 period, driven by strong industrial exports, excellent agricultural harvests, and, more recently, expansionary fiscal policies in 2016-2017 that nearly quadrupled Bucharest's annual fiscal deficit. Exports remained an engine of economic growth, led by trade with the EU, which accounts for roughly 70% of Romania trade. Domestic demand was the major driver, due to tax cuts and large wage increases that began last year and are set to continue in 2018.

Slovakia



Capital: **Bratislava**

Official EU language(s): **Slovak**

Currency: **euro**. Euro area member since 1 January 2009.

Political system[1]: Parliamentary democratic republic with a head of government - the prime minister - who holds the most executive power and a head of state - the president - who is the formal head of the executive, but with very limited powers.

Research and Development expenditure in 2016 (% of GDP)[2]: **0.79%**

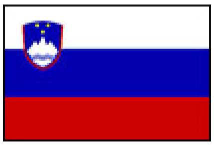
GDP composition (2017 est.)[3]: agriculture **3.8%**; industry **35.0%**, services **61.2%**

Overview[3]: Slovakia's economy suffered from a slow start in the first years after its separation from the Czech Republic in 1993, due to the country's authoritarian leadership and high levels of corruption, but economic reforms implemented after 1998 have placed Slovakia on a path of strong growth. With a population of 5.4 million, the Slovak Republic has a small, open economy driven mainly by automobile and electronics exports, which account for more than 80% of GDP. Slovakia joined the EU in 2004 and

the euro zone in 2009. The country's banking sector is sound and predominantly foreign owned.

Slovakia has been a regional FDI champion for several years, attractive due to a relatively low-cost yet skilled labour force, and a favourable geographic location in the heart of Central Europe. Exports and investment have been key drivers of Slovakia's robust growth in recent years. The unemployment rate fell to historical lows in 2017, and rising wages fuelled increased consumption, which played a more prominent role in 2017 GDP growth. A favourable outlook for the Eurozone suggests continued strong growth prospects for Slovakia during the next few years, although inflation is also expected to pick up.

Slovenia



Capital: **Ljubljana**

Official EU language(s): **Slovenian**

Currency: **euro**. Euro area member since 1 January 2007.

Political system[1]: Parliamentary democratic republic with a head of government - the prime minister - and a head of state - the president - who is directly elected. The government holds executive and administrative authority. The prime minister and ministers are elected by the Parliament.

Research and Development expenditure in 2016 (% of GDP)[2]: **2.00%**

GDP composition (2017 est.)[3]: agriculture **1.8%**; industry **32.2%**, services **65.9%**

Overview[3]: With excellent infrastructure, a well-educated work force, and a strategic location between the Balkans and Western Europe, Slovenia has one of the highest per capita GDPs in Central Europe, despite having suffered a protracted recession in the 2008-09 period in the wake of the global financial crisis. Slovenia became the first 2004 EU entrant to adopt the euro (on 1 January 2007) and has experienced a stable political and economic transition.

In March 2004, Slovenia became the first transition country to graduate from borrower status to donor partner at the World Bank. In 2007, Slovenia was invited to begin the process for joining the OECD; it became a member in 2012. From 2014 to 2016, export-led growth, fuelled by demand in larger European markets, pushed annual GDP growth above 2.3%. Growth reached 5.0% in 2017 and is projected to near or reach 5% in 2018. What used to be stubbornly high unemployment fell below 5.5% in early 2018, driven by strong exports and increasing consumption that boosted labour demand. Continued fiscal consolidation through increased tax collection and social security contributions will likely result in a balanced government budget in 2019.

Spain

Capital: **Madrid**

Official EU language(s): **Spanish**

Currency: **euro**. Euro area member since 1 January 1999

Political system[1]: Parliamentary democracy and constitutional monarchy with a head of government - the

prime minister - and a head of state - the monarch. A council of ministers is the executive branch and is presided over by the prime minister.

Research and Development expenditure in 2016 (% of GDP)[2]: **1.19%**

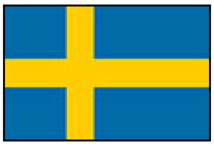
GDP composition (2017 est.)[3]: agriculture **2.6%**; industry **23.2%**, services **74.2%**

Overview[3]: After a prolonged recession that began in 2008 in the wake of the global financial crisis, Spain marked the fourth full year of positive economic growth in 2017, with economic activity surpassing its pre-crisis peak, largely because of increased private consumption. The financial crisis of 2008 broke 16 consecutive years of economic growth for Spain, leading to an economic contraction that lasted until late 2013. In that year, the government successfully shored up its struggling banking sector – heavily exposed to the collapse of Spain’s real estate boom - with the help of an EU-funded restructuring and recapitalization program.

Until 2014, contraction in bank lending, fiscal austerity, and high unemployment constrained domestic consumption and investment. The unemployment rate rose from a low of about 8% in 2007 to more than 26% in 2013, but labour reforms prompted a modest reduction to 16.4% in 2017. High unemployment strained Spain's public finances, as spending on social benefits increased while tax revenues fell. Spain’s budget deficit peaked at 11.4% of GDP in 2010, but Spain gradually reduced the deficit to about 3.3% of GDP in 2017. Public debt has increased substantially – from 60.1% of GDP in 2010 to nearly 96.7% in 2017.

Strong export growth helped bring Spain's current account into surplus in 2013 for the first time since 1986 and sustain Spain’s economic growth. Increasing labour productivity and an internal devaluation resulting from moderating labour costs and lower inflation have improved Spain’s export competitiveness and generated foreign investor interest in the economy, restoring FDI flows.

Sweden



Capital: **Stockholm**

Official EU language(s): **Swedish**

Currency: **Swedish krona (SEK)**. Sweden has committed the euro once it fulfils the necessary conditions.

Political system[1]: constitutional monarchy and parliamentary democracy with a head of government - the prime minister - and a head of state - the monarch. The government exercises executive power. Legislative power is vested in the single-chamber parliament.

Research and Development expenditure in 2016 (% of GDP)[2]: **3.25%**

GDP composition (2017 est.)[3]: agriculture **1.6%**; industry **33.0%**, services **65.4%**

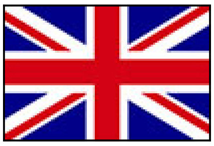
Overview[3]: Sweden’s small, open, and competitive economy has been thriving and Sweden has achieved an enviable standard of living with its combination of free-market capitalism and extensive welfare benefits. Sweden remains outside the euro zone

largely out of concern that joining the European Economic and Monetary Union would diminish the country's sovereignty over its welfare system.

Timber, hydropower, and iron ore constitute the resource base of a manufacturing economy that relies heavily on foreign trade. Exports, including engines and other machines, motor vehicles, and telecommunications equipment, account for more than 44% of GDP. Sweden enjoys a current account surplus of about 5% of GDP, which is one of the highest margins in Europe.

GDP grew an estimated 3.3% in 2016 and 2017 driven largely by investment in the construction sector. Economic growth is expected to ease slightly in the coming years as this investment subsides. Global economic growth boosted exports of Swedish manufactures further, helping drive domestic economic growth in 2017. The central bank is keeping an eye on deflationary pressures and is expected to maintain its expansionary monetary policy in 2018. Swedish prices and wages have grown only slightly over the past few years, helping to support the country's competitiveness.

United Kingdom



Capital: **London**

Official EU language(s): **English**

Currency: **pound sterling (GBP)**. The UK has negotiated of an opt-out from the euro and thus is not obliged to introduce it.

On 23 June 2016 citizens of the United Kingdom (UK) voted to leave the European Union (EU). On 29 March 2017 the UK formally notified the European Council of its intention to leave the EU by triggering of Article 50 of the Lisbon Treaty.
For the time being, the United Kingdom remains a full member of the EU and rights and obligations continue to fully apply in and to the UK.

Political system[1]: Constitutional monarchy with a parliamentary democracy with a head of government - the prime minister - and a head of state - the monarch. The UK consists of 4 countries: England, Scotland, Wales and Northern Ireland. The last 3 have devolved administrations with varying powers. The UK also has varying degrees of links with 3 crown dependencies - the Isle of Man, Guernsey and Jersey. These are not part of the UK, but the British government is responsible for their defence and international representation. The country has also 14 overseas territories which are not formally part of the UK or (except Gibraltar) the EU.

Research and Development expenditure in 2016 (% of GDP)[2]: **1.69%**

GDP composition (2017 est.)[3]: agriculture **0.6%**; industry **19.0%**, services **80.4%**

Overview[3]: The UK, a leading trading power and financial centre, is the third largest economy in Europe after Germany and France. Agriculture is intensive, highly mechanized, and efficient by European standards, producing about 60% of food needs with less than 2% of the labour force. The UK has large coal, natural gas, and oil resources, but its oil and natural gas reserves are declining; the UK has been a net importer of energy since 2005. Services, particularly banking, insurance, and business services, are key

drivers of British GDP growth. Manufacturing, meanwhile, has declined in importance but still accounts for about 10% of economic output.

In 2008, the global financial crisis hit the economy particularly hard, due to the importance of its financial sector. Falling home prices, high consumer debt, and the global economic slowdown compounded the UK's economic problems, pushing the economy into recession in the latter half of 2008 and prompting the then Brown (Labour) government to implement a number of measures to stimulate the economy and stabilize the financial markets. Facing burgeoning public deficits and debt levels, in 2010 the then Cameron-led coalition government (between Conservatives and Liberal Democrats) initiated an austerity program, which has continued under the Conservative government. However, the deficit still remains one of the highest in the G7, standing at 3.6% of GDP as of 2017, and the UK has pledged to lower its corporation tax from 20% to 17% by 2020. The UK had a debt burden of 90.4% GDP at the end of 2017.

The UK's economy has begun to slow since the referendum vote to leave the EU in June 2016. A sustained depreciation of the British pound has increased consumer and producer prices, weighing on consumer spending without spurring a meaningful increase in exports. The UK has an extensive trade relationship with other EU members through its single market membership and economic observers have warned the exit will jeopardize its position as the central location for European financial services. Prime Minister May is seeking a new "deep and special" trade relationship with the EU following the UK's exit. However, economists doubt that the UK will be able to preserve the benefits of EU membership without the obligations. The UK is expected to officially leave the EU by the end of March 2019.

Sources:

[1] Europa.eu

[2] Eurostat.eu

[3] CIA World Factbook

[4] MIT Observatory of Economic Complexity

3. CULTURAL & SOCIAL CONDITIONS IN THE EU

General conditions

Being composed of 28 countries, the European Union shows a huge diversity of cultural and social conditions within its borders. Different food, languages, clothing, religious traditions, among others, make Europe an incredible region to discover. With vastly multifaceted geographical conditions, these cultural differences still reflect in some degree the environment in which European peoples have lived for centuries, ranging from mountainous to coastal areas.

The EU works to preserve Europe's shared cultural heritage and help make it accessible to all. It also supports and promotes the arts and creative industries in Europe, through programmes to provide funding, help with research projects, support for cooperation with EU & non-EU partners, among others. The EU also supports prizes for cultural heritage, architecture, literature and music which highlight Europe's artistic achievements.[1]

Besides this cultural diversity, social conditions in the EU are usually among the best in the world. All EU countries demonstrate High or Very High values of Human Development Index (HDI) according to the UN classification. Some countries such as Norway, Germany, and Denmark, figure among the top 5 overall.[2]

Poverty and Inequality[3]

According to Eurostat, the 2015 poverty rate in the EU countries – calculated as the proportion of the population with net income below the poverty threshold (60 % of the median income level) – was of 17.3%, the lowest rate among the G20 members. Relatively low inequality makes the European Union one of the most equitable income distributions of the G20, on par with South Korea.

These figures are also reflected in daily life conditions throughout the whole area, with low crime rates observed for all EU countries, and a number of expected healthy life years at birth – years spent in a healthy state – estimated at 63.3 years for women and 62.6 years for men. This represents approximately 76 % and 80 % of total life expectancy for women and men respectively, one of the highest overall life expectancies in the world.

Education[3]

This is one of the strongest "suits" of the European Union. Education-wise, the European Union countries also show, in general, very good results. In 2016, more than 99,1% of the total EU adult population (15 years or older) was considered literate[4]. This impressive result comes from a focus in education since the early childhood. The Union has set a benchmark to be achieved until 2020, when 95% of the children between the age of four and the age for starting compulsory education should participate in early childhood education. As of 2015, this target had already been achieved by 14 countries, and the remaining ones are foreseen to reach it as well.

This focus is maintained throughout all school years into the tertiary education level (colleges), with 19.5 million tertiary education students in 2015. Besides, the population aged 30-34 with a tertiary education attainment reached 39.9% in 2017 (increasing from 23.6% in 2002), practically reaching the 40% target defined for 2020[5]. This is strongly related to a high average GDP expenditure on this level (1.3%), with countries like Denmark and Finland spending more than 2% of their GDP in tertiary education alone. Considering all educational levels, public expenditure in the sector in 2014 had an average of more than 5% of total GDP.

Labour and employment[3]

Labour plays a major role in the functioning of an economy. From the point of view of businesses, labour represents a cost that includes not only the wages and salaries to employees but also non-wage costs, mainly social contributions payable by the employer. Thus, it is a key determinant of business competitiveness. The average hourly labour cost in 2016 was estimated at EUR 25.40 in the EU-28 and at EUR 29.80 in the euro area (EA-19). However, this average masks significant differences between EU Member States, with hourly labour costs ranging between EUR 4.40 in Bulgaria and EUR 42.00 in Denmark. Additionally, a gender pay gap is also noted, with women being paid, on average, 16.3 % less than men in the EU-28. Nevertheless, this difference has been diminishing, what can be partly explained by a higher increase in female employment rate in all member countries in comparison to the male one.

In 2017, the employment rate of persons aged 20-64 in the EU-28 was 72.2%, the highest rate ever recorded for the EU-28[5]. These figures include the whole population in the age range mentioned and have been increasing steadily since the Great Financial Crisis, with an average of +0.95 p.p. during the last four years. The largest group of occupations in the EU-28 in 2016 was personal services and sales employees, at

9.5% of the work force, or 21.4 million persons, followed by clerical support employees (7.2%) business and administration professionals (5.8%), and science, engineering and ICT professionals, as well as teaching professionals (4.8% each).

The employment rate is not to be confused with the **unemployment rate**, that does not include people inside this age range that are not actively searching for a job. In July 2018, the EU unemployment rate reached **8.2%**, and has been steadily decreasing since a peak of 11% in 2013. The youth unemployment rate (people aged 25 or lower), while also decreasing, still persists in a relatively high level, with 14.8% in the EU-28. In July 2018, the lowest rates were observed in Germany (6.1%), Malta (6.3%), and the Czech Republic (6.6%), while the highest were recorded in Greece (39.7% in May 2018), Spain (33.4%) and Italy (30.8%).

Sources:

[1] Europa.eu

[2] UN Human Development Report (2016)

[3] Key Figures on Europe (Eurostat, 2017)

[4] World Bank

[5] Eurostat.eu

4. POLITICAL & ECONOMIC CONDITIONS IN THE EU

Political Institutional Framework[1]

The European Union is a unique political entity, whose sovereign member countries pool authority in key areas of government in order to reach shared goals. Every national of a member country is also an EU citizen, giving them the right to participate in the democratic life of the bloc.

Similar to a state, the EU has a legislative branch (Parliament + Council), executive branch (Commission) and independent judiciary (Court of Justice). The powers of the EU institutions have been laid down by founding treaties negotiated and ratified by member countries. In policy areas not covered by the treaties, national governments are free to exercise their own sovereignty.

As a bloc based on democratic ideals, all member states are representative democracies, with representatives directly elected. Each of EU's 28 member countries chooses its own national political system, as long as the democratic ideals are kept.

Nowadays, observed differences between national political systems are largely based on the country historical background. Seven countries are constitutional monarchies (Belgium, Denmark, Luxembourg, Netherlands, Spain, Sweden, and the United Kingdom). The rest are republics, either (semi-)presidential or parliamentary. The role of the heads of the State and government, as well as their legislature systems, varies across countries.

Economic Conditions[2]

EU countries coordinate their national economic policies, a feature more prominently indicated by the 19 country members that have adopted the euro as their currency.

All EU member countries (whether inside or outside the euro) are part of the economic & monetary union (EMU), a framework for economic cooperation designed to promote job creation and sustainable growth, as well as to coordinate the response to global economic and financial challenges.

Gross Domestic Product[2]

As a result of the Great Financial Crisis of 2008-09, which incurred in an economic slowdown on

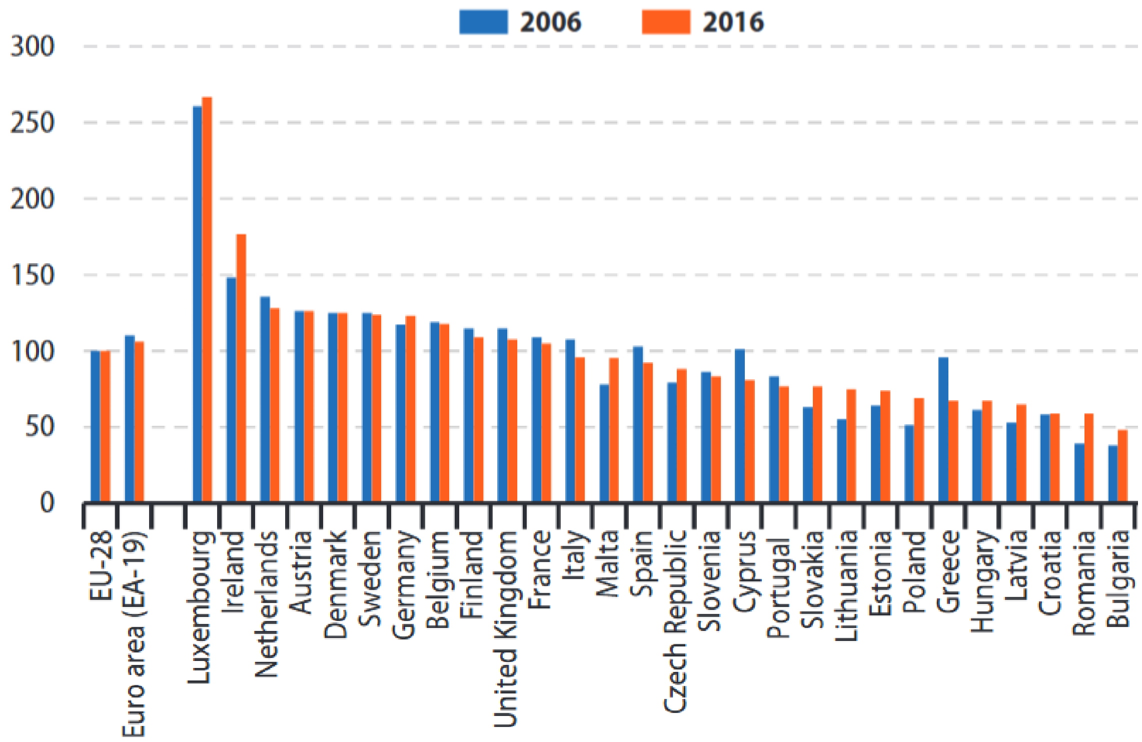


Figure 4.1 - GDP per capita at current market prices, 2006 and 2016 (EU-28 = 100; based on PPS per inhabitant) (Source: Eurostat, *Key Figures on Europe,* 2017)

a global level, the European Union faced a severe crisis from 2010 on, especially in weaker economies such as Greece. The measures taken to overcome this crisis helped the EU return to a growing trajectory.

In terms of GDP of the European Union as a whole, successive positive rates recorded after 2012 have underlined a healthy – even though relatively slow – economic recovery, with a growth rate of 2.4% in 2017[3].

It is important to notice, however, that this growth was not verified for all EU members equally. Comparing 2006 to 2016 Figure 4.1 indicates that countries like Spain, Cyprus, and Greece have lost ground in terms of GDP *per capita*, a direct consequence of the crisis. The graph also indicates the difference between EU-members. Luxembourg's GDP per capita in terms of purchasing power parity was about 2.7 times that of the EU-28 average in 2016, whereas Romania and Bulgaria show figures around half of the EU-28 average.

Investment[2]

In 2015, the (gross) household investment rate in the EU-28 was 7.9%, while the corresponding figure for the euro area was 0.4 percentage points higher at 8.3 %. The household investment rate ranged from 9.9 % in Belgium and the Netherlands and 9.5 % in Germany and Finland, down to 4.3 % in Spain and Latvia, and a 2.7 % in Bulgaria (2014 data).

The business investment rate (for non-financial corporations) in 2015 was 21.9 % in the EU-28 (euro area 21.8 %). Between 2014 and 2015, the business investment rate increased by a small margin, rising by 0.2 p.p. in the EU-28 (euro area 0.1 percentage point). The highest business investment rates among the 26 EU Member States (for which data are available) were recorded in the Czech Republic, Romania, Sweden, Spain, and Bulgaria (2014 data). The lowest rates were recorded in Greece (15.3 %) and Cyprus (14.6 %).

The business investment rates of the five largest EU-28 economies varied quite considerably: in Spain (26.1 %) and France (22.9 %) the latest rates for 2015 were above the EU-28 average, while in Germany (19.7 %), Italy (19.3 %) and the United Kingdom (17.3 %) they were below the EU-28 average.

Government Finance[2]

In forming the EU's Stability and Growth Pact (SGP) Member States pledged to keep their deficits and debt below certain thresholds: a Member State's government deficit may not exceed -3% of its GDP, while its debt may not exceed 60% of GDP.

The EU-28's government deficit-to-GDP ratio decreased from -2.4% in 2015 to -1.7 % in 2016, while this ratio decreased in the euro area from -2.1% to -1.5%. Ten EU Member States registered government surpluses in 2016. Bulgaria and Latvia recorded a very slight surplus of 0.1 % of GDP. There were 14 EU Member States which recorded deficits in 2016 that were smaller than or equal to -3.0 % of GDP. France and Spain recorded deficits of -3.4 % of GDP and -4.5 % of GDP respectively.

In the EU-28, the government debt-to-GDP ratio decreased from 84.9 % at the end of 2015 to 83.5 % at the end of 2016, while in the euro area it fell from 90.3 % to 89.2 %. A total of 16 EU Member States reported a debt ratio above 60 % of GDP at the end of 2016: the highest of these was registered by Greece (179.0 %), followed by Italy (132.6 %), Portugal (130.4 %), Cyprus (107.8 %) and Belgium (105.8 %). The lowest ratios of government debt-to-GDP were recorded in Estonia (9.5 %), Luxembourg (20.0 %) and Bulgaria (29.5 %). At the end of 2016, government debt-to-GDP ratios were higher for nine EU Member States than they had been at the end of 2015, while this ratio was lower for 19 Member States, most notably for Slovenia (−3.5 p.p.), Ireland (−3.3 p.p.) and the Czech Republic (−3.1 p.p.).

Inflation[2]

Inflation is typically measured by consumer price indices or retail price indices. Within the EU, a specific consumer price index has been developed — the harmonised index of consumer prices (HICP). The EU average annual inflation rate reached 3.7% in 2008. Following relatively

sharp movements during the economic crisis period 2008-2012, the inflation rate slowed to 1.5% in 2013, 0.5% in 2014, 0.0% in 2015, rising back to 1.5% in 2017.

Balance of Payments[2]

The balance of payments records all economic transactions between resident and non-resident entities during a given period. Within it, the balance of the current and capital accounts determines the exposure of an economy to the rest of the world, whereas the financial account pertains specifically to financial flows.

The current account surplus of the EU-28 was EUR 258.5 billion in 2016, corresponding to 1.7 % of GDP. The latest developments for the EU-28's current account show a continuation of the pattern established since 2008: from the peak of 2.1% of GDP in 2008, the current account deficit gradually diminished and in 2012 turned into a surplus equivalent to 0.6 % of GDP, with consecutive slight increases every year since then.

Among the partner countries and regions, the EU-28's current account deficit was largest with China, standing at EUR 112.5 billion in 2016, followed by Russia (EUR 19.3 billion) and Japan (EUR 6.6 billion). On the other hand, the highest current account surpluses were recorded with the United States (EUR 164.8 billion) and Switzerland (EUR 53.7 billion). Smaller surpluses were recorded with Brazil, Hong Kong, Canada and India.

Sources:

[1] Europa.eu

[2] Eurostat.eu

5. BUSINESS AND RESEARCH OPPORTUNITIES IN THE EU

Introduction

Business and Research opportunities in the EU are manifold. From start-ups to huge corporations, the European Union offers a great variety of prospects for all business ranges and fields. The same applies to research institutions and individuals, with numerous programs covering virtually all research fields. This section addresses general aspects of the opportunities provided by the EU, regarding industrial policies and initiatives for the most important business sectors, as well as facts and figures for each one.

European Industrial Policy[1]

Industry is the engine of innovation, productivity growth and exports. It offers quality jobs to Europeans. However, the European industrial structure is undergoing deep transformation driven by digital and other new technologies, and new business models. So, a modernisation effort is required to ensure that the European industry stays competitive in global markets: for that, it is necessary to embrace technological change; integrate products and services; develop technologies that use less energy, reduce waste and avoid pollution; and invest in a workforce with the right skills.

In September 2017, a renewed industrial policy strategy, introduced by the European Commission's President Jean-Claude Juncker, put a strong European industry as a political priority. The new elements of the EU Industrial Policy Strategy include a wide range of areas, from cybersecurity to clean, competitive, and connected mobility, illustrating the importance of new technologies and innovative practices.

These measures have as their primary objective the maintenance of EU's leadership in the industrial sector, which comprise most of the core activities in the European economy. To have a better picture of the importance of industry in Europe, a general overview of the most important sectors is presented below, as well as some measures undertaken by the European Commission to improve them even further.

Aeronautics Industries[1]

Aeronautics is one of the EU's key high-tech sectors on the global market:

- it provides more than **500,000** jobs and generated a turnover of close to EUR **140 billion** (in 2013)

- the EU is a world leader in the production of civil aircraft, including helicopters, aircraft engines, parts and components
- the EU has a trade surplus for aerospace products, which are exported all over the world.

The industry is highly concentrated, both geographically (in particular EU countries) and in terms of the few large enterprises involved. Employment in the aerospace sector is particularly significant in the **United Kingdom, France, Germany, Italy, Spain, Poland** and **Sweden**.

Productivity is considerable and despite high employment costs, the sector is quite profitable. A sizeable share of value added is spent on research and development (R&D), which is reflected in an increasing number of patent applications.

RDI expenditures represent 10% of industry turnover, one third of which being financed by the public sector. The Strategic Research and Innovation Agenda (SRIA) is the roadmap developed by the European industry through the Advisory Council for Aeronautics Research in Europe (ACARE) providing a guide to future public and private RDI programmes. The Commission also supports the European RDI effort in aeronautics through Horizon 2020 under the "Smart, Green and Integrated Transport challenge" and two Joint Technology Initiatives, Clean Sky and the SESAR Join Undertaking.

Agriculture[1]

There are around **11 million farms** in the EU and **22 million people** work regularly in the sector. They provide an impressive variety of abundant, affordable, safe and good quality products.

Despite the importance of food production, farmers' income is significantly lower compared to non-agricultural income (by around 40%). Agriculture depends more on the weather and the climate than many other sectors. Besides there is an inevitable time gap between consumer demand and farmers being able to supply: growing more wheat or producing more milk inevitably takes time.

Due to these reasons, the EU's Common Agricultural Policy (CAP), first created in 1962, supports farmers to overcome these challenges, while maintaining the sector's quality standards and reducing the activity's environmental impact. In 2018, the European Union supported farmers with **€58.8 billion**, what represents around **37%** of its total budget.

This is fundamental to allow farmers to operate efficiently and remain modern and productive, and upstream and downstream sectors need ready access to the latest information on agricultural issues, farming methods and market

developments. During the period 2014-20, the CAP is expected to provide high-speed technologies, improved internet services and infrastructure to **18 million rural citizens** – the equivalent of 6.4 % of the EU's rural population.

The importance of the agricultural sector in Europe is huge, ensuring food security not only inside the continent but also in other regions. That way, the improvement its conditions through innovative practices is essential, what represents a vast field of opportunities for skilled professionals and businesses linked to agricultural production.

Automotive Industry[1]

The automotive industry is crucial for Europe's prosperity. The sector provides jobs for **12 million people** and accounts for **4% of the EU's GDP**. The EU is among the world's biggest producers of motor vehicles and the sector represents the largest private investor in research and development (R&D). The automotive industry has an important multiplier effect in the economy. It is important for upstream industries such as steel, chemicals, and textiles, as well as downstream industries such as ICT, repair, and mobility services.

The partnership between Europe and Brazil in this sector is one of the most longevous, with European companies such as Volkswagen, Renault, Fiat, among others, being present in the country for many decades. The same applies to their suppliers, like Bosch or ZF, illustrating the multiplier effect in all markets they are present.

To strengthen the competitiveness of the EU automotive industry and preserve its global technological leadership, the European Commission supports global technological harmonisation and provides funding for R&D. **Technological harmonisation** consists in providing common technical requirements to help reduce development costs and avoid duplication of administrative procedures. Harmonisation is considered key to strengthening the competitiveness of the EU automotive industry.

For the period 2014-2020, the Commission has **more than doubled** the funds available for cooperative research and innovation in the automotive sector. The funding focuses on green vehicles, decarbonisation of conventional engines, safety, and information technology infrastructure. These policies are expected to be strengthened in the future, following the global trend of cleaner and renewable-energy driven vehicles.

Biotechnology[1]

Biotechnology and life sciences contribute to the modernisation of European industry. They are used in a variety of industrial sectors such as healthcare and pharmaceuticals, animal health, textiles, chemicals, plastic, paper, fuel, food, and feed processing.

In **healthcare and pharmaceutical applications**, biotechnology has led to the discovery and development of advanced medicines, therapies, diagnostics, and vaccines. For example, biotechnological breakthroughs have created new medicines for patients suffering from a number of diseases, including advances in the combat cancer and Alzheimer's disease.

In **agriculture, livestock, veterinary products, and aquaculture**, biotechnology has improved animal feed, produced vaccines for livestock, and improved diagnostics for detecting diseases. It has also enabled the use of enzymes for more efficient food processing and improved the breeding of plants to obtain desired characteristics.

In **industrial processes and manufacturing**, biotechnology has led to the use of enzymes in the production of detergents, pulp and paper, textiles, and biomass. By using fermentation and enzyme biocatalysis instead of traditional chemical synthesis, higher process efficiency can be obtained, decreasing energy and water consumption.

This sector presents a clear synergy with the research and development undertaken in Brazil, one of the world leaders in the new technologies and production of biofuel, such as sugarcane Ethanol and Biodiesel, and innovative chemical and pharmaceutical industries.

Chemicals[1]

The chemicals industry is one of Europe's largest manufacturing sectors. As an 'enabling industry', it plays a pivotal role in providing innovative materials and technological solutions to support Europe's industrial competitiveness. A competitive chemical industry supports the improvement of living standards, and generates employment and wealth. This fuels innovation and development throughout the economic system. The industry is a solution provider for many societal challenges, as well as other sectors. Furthermore, the EU chemicals industry:

- represents around **7% of EU industrial production;**
- has **sales amounting to EUR 527 billion (2013)**, which is about 17% of global chemicals sales;
- provides **1.15 million direct highly-skilled jobs (2013)**;
- secures three times more jobs in other industries through indirect employment;
- has the second highest share of added value per employee (after pharmaceuticals);
- represents around **1.1%** share of **EU GDP**;
- generates a trade surplus of **EUR 49 billion** (2013).

The chemicals industry is at the heart of the EU manufacturing industry. It supplies two-thirds of its production to other sectors within the manufacturing industry. Other important links exist with agriculture and services. The EU chemicals sector is very innovative and is a strong solution provider for societal challenges such as climate change, health, and nutrition.

The European Commission launched a number of initiatives to foster competitiveness in the European chemicals industry. It implements policies to facilitate structural change, e.g. the sustainable chemicals sector, which includes bio-refineries and plastics recycling, helps attract investment to Europe. It also helps reinforce the EU industrial base and encourages investment in research and innovation.

Construction[1]

The construction industry is very important to the EU economy. The sector provides **18 million direct jobs** and contributes to about **9% of the EU's GDP**. It also creates new jobs, drives economic growth, and provides solutions for social, climate and energy challenges.

One of the main challenges faced by the construction sector is energy efficiency and climate change: Buildings account for the largest share of total EU final energy consumption (40%) and produce about 35% of all greenhouse emissions. In a scenario of increasing energy consumption in households, new technologies concerning more efficient and sustainable practices are essential, representing an important field of research and innovation for the next decades.

Besides that, up to 95% of construction, architecture, and civil engineering firms are micro-enterprises or small and medium-sized enterprise (SMES). Initiatives in EU countries on energy efficiency have a significant potential for job creation in this sector.

Financial Services[1]

The financial sector is a backbone of the European economy. Covering a wide range of topics, from insurance services and pension funds to banks and credit institutions, it is responsible for the functioning of virtually all transactions inside and outside the region. Moreover, being linked to all economic sectors, it is responsible for the soundness of the European economy as a whole.

Following the outbreak of the financial crisis the EU put forward an unprecedented series of reforms to restore financial stability and public confidence in the financial system. These reforms include new rules to strengthen financial supervision, new tools for bank recovery and resolution, more effective deposit protection, and an improved regulatory framework for banks, insurance, securities markets and other

sectors. Laws have also been adopted to tackle excessive volatility in financial markets, including new rules on hedge funds, short selling, credit rating agencies and derivatives.

Besides that, a European Banking Union is gradually being implemented, with common rules for all financial actors within the EU. To guarantee the smooth functioning of this complex framework, a strong infrastructure is necessary, encompassing state-of-art practices in fields such as ICT and information security, increasing even more the opportunities linked to the sector.

Food and drink industry[1]

The food and drink industry is the EU's **biggest manufacturing sector in terms of jobs and value added**. It's also an asset in trade with non-EU countries. The EU boasts an important trade surplus in trade in food and EU food specialities are well appreciated overseas. In the last 10 years, EU food and drink exports have doubled, reaching over **EUR 90 Billion** and contributing to a **positive balance of almost EUR 30 Billion**.

EU food legislation is highly harmonised and the sector benefits significantly from the opportunities offered by the EU Single Market. At the same time, however, the sector faces certain challenges in both international and European markets.

The European Commission is working to improve the competitiveness of the EU food sector and the functioning of the Single Market for Food. It also strives to create new trade opportunities for food and drink products, through various trade negotiations and dialogues with third countries.

The food and drink sector presents a robust opportunity for Brazilian entrepreneurs, both as exporters and investors. In 2017, the **largest source** of food imports by the EU was Brazil, representing 12% of total EU imports in the sector[2]. Besides that, technologies and innovative practices already in place in Brazil may contribute to Europe's competitiveness in the sector.

Initiatives fostering multilateral cooperation in the sector support this idea, e.g. the High Level Forum for a Better Functioning Food Supply Chain. The Forum is an EU-wide platform, involving all actors along the chain, to discuss the main issues affecting the EU Food Sector from competitiveness to innovation, sustainability, creating value and fostering better trading relations.

Healthcare Industries[1]

A vibrant EU pharmaceutical sector is essential to achieving a high level of public health protection and a competitive knowledge-based economy. In 2012, the sector was worth EUR **220 billion** and employed about **800,000 people** –

around **1.8% of the EU's total manufacturing workforce**. The pharmaceutical sector also has one of the highest labour productivities in the EU. Today, the sector is extensively regulated at EU level in order to protect public health and strengthen the industry's competitiveness through the continued development of a single EU market for pharmaceuticals.

All medicinal products for human use must be authorised at national or EU level before they can be placed on the EU market. Special rules exist for the authorisation of medicinal products for paediatric use, orphan medicines, traditional herbal medicines, vaccines, and clinical trials. The EU has established the European Medicines Agency (EMEA) to help in this process by coordinating the scientific evaluation of the quality, safety, and efficacy of medicinal products undergoing an authorisation procedure.

Once a medicinal product has been authorised and placed on the EU market, its safety is monitored throughout its entire lifespan. In the case of adverse reactions that present an unacceptable level of risk under normal conditions of use, the product is rapidly withdrawn from the market.

Medicinal products for veterinary use must also be authorised at national or EU level before being placed on the EU market. This is to guarantee the highest possible level of animal health and to secure the availability of these products across the EU. Particular special rules are applied to ensure consumer protection from residue limits from pharmacologically active substances used in food-producing animals.

Mechanical Engineering[1]

Mechanical engineering is one of the largest industrial sectors in the EU economy in terms of number of enterprises, employment, production, and the generation of added value. The sector is characterised by relatively small family owned companies. The mechanical engineering industry is an excellent example of an EU sector that is performing well economically.

The importance of the mechanical engineering sector can be easily perceived by its figures:

- Some **3 million people** are employed in the sector in the EU.
- Mechanical engineering is responsible for **9.5% of all the production** in EU manufacturing industries.
- Europe is the **world's largest producer and exporter of machinery** with an estimated 36% share of the world market.
- The European mechanical engineering sector is expected to grow at an annual average rate of **3.8% over the next 10 years.**

The competitiveness of the industry relies on excellent innovative products, and know-how and skills, as well as the ability to meet customer needs. Several European Commission's activities aim to strengthen the competitiveness of the industry, such as drafting of regulations regarding key aspects of the sector including directives to harmonise standards in key areas.

This is important in order to maintain and expand the activities of these sectors, especially with regard to the economic significance of the sector as a whole, the EU's position compared to international competitors, and the level of exports and the trade balance. In this scenario, improved innovation and research is vital, entailing increasing opportunities for researchers and investors in the sector.

Textiles, Fashion and Creative Industries[1]

Fashion and creative industries such as the textiles and clothing, footwear, and leather sectors, operate at the crossroads between arts, business, and technology. They are in a strategic position to link creativity to innovation at a time when culture-based creativity is an essential feature of business innovation in the new economy.

Cultural and creative industries (CCIs) are at the heart of the creative economy: knowledge-intensive, based on individual creativity and talent, they generate huge economic wealth and preserve European identity, culture and values.

CCIs include a number of subsectors, such as architecture, archives and libraries, artistic crafts, cultural heritage, design, fashion, film, high-end, music, performing and virtual arts, publishing, radio, television and video-games.

According to a 2016 study, boosting the competitiveness of cultural and creative industries for jobs and growth shows that CCIs employ more than **12 million people** in the EU, which is **7.5% of all persons employed** in the total economy. They are an important contributor to the economy with **5.3% of the total EU gross value-added** and further **4% of nominal EU GDP** generated by the high-end industries.

Tourism[1]

Tourism is a major economic activity in the European Union with wide-ranging impact on economic growth, employment, and social development. It can be a powerful tool in fighting economic decline and unemployment.

EU policy aims to maintain Europe's standing as a leading tourist destination while maximising the industry's contribution to growth and em-

ployment. It also promotes cooperation between EU countries, particularly through the exchange of good practice. The EU's competence in the tourism sector is one of support and coordination the actions of member countries.

The European Commission works on a number of initiatives to diversify and improve the range of tourism products and services available, extending from accessibility improvements to cultural tourism. Besides, sustainable tourism is perceived as essential to guarantee the competitiveness of the European tourism industry, and receives a strong policy focus, with measures such as supporting a campaign to develop cycling routes.

Practices envisaging the maintenance and sustainability of the European tourism industry are, therefore, a must. With an ever-increasing of this sector in the global economy – generating in 2017 alone **US$ 1.6 trillion** in export earnings[3] - the economic potential of tourism is clear. However, its impacts over historical and natural sites, regional economies, and local infrastructure are not to be neglected. These challenges, on the other hand, represent a great source of opportunities for innovative practices and solutions, and tend to increase consistently in the next decades.

Sources:

[1] Europa.eu

[2] Eurostat.eu

[3] UN World Tourism Organization (UNWTO)

6. OPENING A BUSINESS ENTITY IN THE EU

Introduction

Starting a company in the European Union is an easy and well-thought process, in order to facilitate entrepreneurship and innovativeness. Whereas **each country has its own rules**, the general directions are pretty straightforward. Deep and practical information regarding the specific rules to each country, on topics like regulation, taxation, among others, can be found in the European Union website (all links listed in this section can also be found in Section 9).

The **first step** to open a business in the EU is finding a national contact point, or Points of Single Contact (PSCs). These are e-government portals that allow service providers to get the information they need and complete administrative procedures online, and are managed by the 'EUGO network' of national coordinators.

PSCs provide information concerning a wide range of practical issues, from licences and permits needed to start a business to labour and social laws, rules, and costs for application. The Enterprise Europe Network (EEN) website provides a quick tool to help locate the local contact point most suitable to your needs, as well as other relevant information.

Start-ups

The process to open a start-up in the EU vary depending on the country. However, the EU encourages all countries to meet certain targets for helping to set up new companies, including[1]:

- setting up in no more than **3 working days**
- costing less than **EUR 100**
- completing all procedures through **a single administrative body**
- completing all **registration formalities online**
- registering a company in another EU country online (through the national contact points)

There are several websites and platforms to help you open your start-up in Europe. The Start-Up Europe Club portal provides important information regarding key topics such as networking possibilities, EU funds and support, how to increase your exposure, relevant events, among others. Being an initiative from the European Commission, the website is the starting point to connect small entrepreneurs to local

start-up ecosystems and provide them the information they need to grow and thrive in Europe.

Small and Medium Enterprises (SMEs)

Small and medium-sized enterprises (SMEs) are the backbone of Europe's economy. As defined by the EU Recommendation 2003/361, the main factors determining whether an enterprise is an SME are **staff headcount** and either **turnover or balance sheet total** (applied to individual firms only – i.e., not part of a larger group), as shown below:

Category	Staff Headcount	Turnover / Balance sheet total
Medium-sized	< 250	≤ € 50 m / ≤ € 43 m
Small	< 50	≤ € 10 m / ≤ € 10 m
Micro	< 10	≤ € 2 m / ≤ € 2 m

This type of companies, including start-ups, represents **99%** of all businesses in the EU. In the past five years, they have created around **85% of new jobs** and provided **two-thirds of the total private sector employment** in the EU[1].

With that in mind, the European Commission has taken several efforts to promote entrepreneurship and provide optimal conditions to businesses all over Europe. Among those, the creation of the Small Business Act (SBA) acts as an overarching framework for the EU policy on Small and Medium Enterprises, providing them easy and clear regulation, a lighter taxation burden, promotion of innovation and access to finance, among others.

The EC provides a self-assessment tool to determine if your company qualifies as an SME, and is therefore able to take advantage of its special framework.

Sources:

[1] European Commission

7. RESEARCH AND BUSINESS FUNDING

Some funding opportunities covered in this section may have restrictions to non-EU nationals. Be sure to inform yourself about the requirements for each!

Specialized ENRICH in Brazil publications focusing on EU funding for Europeans and Brazilian funding for Brazilians will be available in the future. Stay tuned!

Horizon 2020

The importance of synergetic relation between business and research has increased constantly in the last decades. According to the IMF[1], research and development, from both domestic and foreign sources, figure among the most important factors to drive innovation in a country, with increases in productivity following a similar pattern.

This perspective is shared by the EU, and its measures to foster research and development illustrate that. With its vision *Open Innovation, Open Science, Open to the World*, the EU set policy goals focusing on i) opening up the innovation process to people with experience in fields other than academia and science, ii) spreading knowledge as soon as it is available using digital and collaborative technology, and iii) promoting international cooperation in the research community.

The tools to achieve these goals are several. The most important project, **Horizon 2020** (H2020), is the biggest EU Research and Innovation programme ever with nearly €80 billion of funding available over 7 years (2014 to 2020)[2], providing a plethora of opportunities to researchers from virtually all fields.

Whereas Brazilian institutions **are not directly** eligible for funding in all projects, **many require the participation of Brazilian partners**, and provide grants for Brazilians in these specific projects. Besides that, a co-funding mechanism signed by the European Commission, the Brazilian National Council for Scientific and Technological Development (CNPq), the Brazilian Funding Agency for Studies and Projects (FINEP), and the Brazilian National Council of State Funding Agencies (CONFAP) provides funding for projects under H2020 that may interest Brazilian partners. It also outlines the necessary operational steps for launching coordinated calls and for twinning of projects in areas of common interest.

All information about the different aspects of the programme can be found in its website (all

links listed in this section can also be found in Section 9). Besides that, the European Commission provides a page listing all Brazilian National Contact Points, who can also provide guidance, practical information and assistance on all aspects of participation in Horizon 2020.

While Horizon 2020 ends in 2020, the next research and innovation framework programme, Horizon Europe, has already began to structure its approach and negotiations have already taken place within the EU regarding its final aspects. The programme is expected to be officially launched on 01 January 2021. It will be an ambitious €100 billion programme expected to continue the successful trajectory of its predecessors by offering numerous opportunities for researchers from Europe and beyond. The requirements for participation will be similar to those applying to Horizon 2020.

Funding your Research

Another important platform offered to researchers is EURAXESS, a unique pan-European initiative delivering information and support services to professional researchers. It offers opportunities to individual researchers who are in search of a job position, funding grants, host institutions, or information and assistance to achieve their career goals. With more than **10 thousand** job positions available and a similar number of registered organisations, EURAXESS is a powerful tool to find diverse opportunities for your research prospects, all free of charge. More information regarding the platform and its opportunities can be found directly under its central website, or on its Latin American and Caribbean EURAXESS page.

The European Research Council (ERC) also provides grants for researchers since 2007, with focus on consolidating already successful research careers in Europe. Being part of Horizon 2020, the total budget allocated to the ERC for the period 2014-2020 is € 13.1 billion, what represents 17% of the overall Horizon 2020 budget. Since 2007, some 8,000 projects have been selected for funding from more than 65,000 applications, and ERC grantees have won prestigious prizes, including **6 Nobel Prizes, 4 Fields Medals, 5 Wolf Prizes,** and more. All information regarding ERC funded projects, including statistical data on evaluated proposals and selected projects, as well as rules and how to apply to the funds can be found under the ERC website.

Funding your business

The funding opportunities for businesses and entrepreneurs are manifold. **EU Funding** is available for all types of companies of any size and sector including entrepreneurs, start-ups, micro companies, small and medium-sized enterprises, and larger businesses. A wide range of financing is available: business loans,

microfinance, guarantees and venture capital. Every year the EU supports more than 200,000 businesses[2].

The decision to provide EU financing will be made by the local financial institutions such as banks, venture capitalists or angel investors. Thanks to the EU support, the local financial institutions can provide additional financing to businesses.

The several funding programmes available once again make clear the importance of innovative businesses, with a strong focus on Small and Medium Enterprises with innovative practices. The **COSME Programme** is especially designed to provide funding to SMEs in all phases of their lifecycle – creation, expansion, or business transfer. The programme, running from 2014 to 2020 with a planned budget of EUR 2.3 billion, provides guarantees to small and medium-sized enterprises for loans mainly up to EUR 150,000, besides supporting entrepreneurs by strengthening entrepreneurship education, mentoring, guidance, and other services. A European legal entity is necessary to access COSME's opportunities, but its legal basis allows entities from other countries to participate in certain projects on a self-financing basis. Deeper information can be found in COSME's webpage.

Part of Horizon 2020, the InnovFin Programme aims to facilitate and accelerate access to finance for innovative businesses and other innovative entities in Europe. It is a joint initiative launched by the European Investment Bank Group (EIB and EIF) in cooperation with the European Commission, and has as its primary goal the simplification of access to loans and guarantees to innovative businesses, as well as financing research & development projects. The programme is not restricted to SMEs, but rather covers the whole spectrum, from start-ups to large private companies, research institutions, or universities.

Financing cultural and creative sector SMEs is perceived as challenging, due to the specificities of the sector and intangible assets it deals with. To cover this gap, the European Commission created the Creative Europe Programme, in order to support Europe's cultural and creative sectors. With a budget of €1.46 billion, the programme envisages the maintenance and expansion of the European culture and heritage through several aspects, from literature to cinema and other audiovisual initiatives.

The EC also provides opportunities focused on more vulnerable groups and regions, envisaging diminishing possible disparities within the region. The Programme for Employment and Social Innovation (EaSI) is a financing instrument at EU level to achieve this goal. One of its three

axes, the **Microfinance and Social Entrepreneurship** axis, supports microcredit and microloans for vulnerable groups and micro-enterprises, as well as social entrepreneurship businesses.

Whereas the European Commission does not directly finance entrepreneurs or social enterprises, it enables selected microcredit providers and social enterprise investors in the EU to increase lending. Organisations that can apply for funding are public and private bodies established at national, regional or local level and providing microcredit for persons and microenterprises and/or financing for social enterprises in these countries.

Sources:

[1] International Monetary Fund – World Economic Outlook (April 2018)

[2] Horizon 2020 website

8. VISA REQUIREMENTS

Travel Visa[1,2]

Brazil has a visa exemption agreement with more than 90 jurisdictions, including the European Union. This means that, **currently**, Brazilian citizens are **exempt from requiring a visa** to enter the European Zone for a short-stay (**up to 90 days**). Your passport must have a minimum expiry date of **3 months** beyond the intended stay.

From the 28 member-states of the EU, 22 are part of the **Schengen Area,** together with seven non-EU countries (Iceland, Monaco, Norway, Liechtenstein, San Marino, Switzerland, and Vatican City). Inside the Schengen Area, any person, **irrespective of nationality**, may cross the internal borders without being subjected to border checks. This system greatly facilitates the movement inside the EU and permits the authorities to focus their efforts on the outside borders, increasing security and freedom.

The EU countries which are not part of the Schengen Area (Bulgaria, Croatia, Cyprus, Ireland, Romania, and the United Kingdom) have specific rules each to enter the country. For **Brazilian citizens**, no visa is required to enter the UK and Ireland, whereas Bulgaria, Croatia, Cyprus, and Romania authorize foreign nationals who have a **Schengen visa** (got at the Schengen Area entry) to enter the countries for a short-term stay. If you have doubts regarding your trip, please contact the consulate of the country you are travelling to.

From 2021 on, all Brazilian travellers wishing to visit Europe for business or leisure will need to apply online for a European Travel Information and Authorization System (ETIAS) **travel authorization**. The ETIAS visa application form will be obtained through a simple, cheap and fast online process. In the vast majority of cases, an authorization should be given in a matter of minutes. The only official document that travellers will need to complete the online application is a **biometric passport**, besides an email address and a debit or credit card. Once the ETIAS registration and application process is complete, submitted and approved, the ETIAS travel authorization document will be issued and **valid for 3 consecutive years**.

Student Visa[3]

A **student visa** is an authorization the government of the designated country issues to students who are **already accepted** at a certified educational establishment. Brazilian citizens who wish to come and study in Europe must apply

for a Schengen student visa, as well as for a residence permit, in case the study period is longer than 90 days.

Each country has specific rules regarding the necessary documents to apply for a student visa, so it is important to check with the country's embassy/consulate before applying. The usual requirements are:

- Filled application form;
- Passport photos;
- A valid passport (with a minimum expiry date of 3 months beyond the intended stay, and at least two blank pages);
- Documentation to prove how you intend to support your stay in Europe (scholarship, own savings, other income sources);
- Proof of accommodation;
- Health Insurance;
- Letter of acceptance from your university;
- Payment receipt of the processing fee.

The submission to a visa must be made through the consulate or embassy of the country in which you will study. The residence permit is usually done after the arrival, with the local authorities.

Employment Visa[3]

If you have got a job in the EU, similar requirements to a student visa apply. However, instead of a letter of acceptance for a university, the **employment contract** between the future employer and the employee is required, as well as copies for all previous visas granted (usually available in older passports).

Once again, every country has its own rules concerning the application, so it is important to contact the consulate/embassy of the destiny to get to know potentially required documents.

Business Visa[3]

If you are travelling to Europe for more than 90 days due to business reasons, either representing a company located in Brazil or as a self-employed individual, you will need a **business visa**.

Additional to the documents aforementioned, you will need:

- A round-trip itinerary, detailing dates and flight numbers specifying entry and exit from the Schengen area;
- A cover letter specifying the reasons to your visit;
- A short profile of your working place/self-employed activities;
- An invitation letter written by the partner company in Europe;

- For employees of a company:
  - A letter from your employer, restating the purposes of your visit and itinerary;
  - Your employment contract;
  - A current bank statement of the latest 6 months;
  - A leave permission from the employer;
  - Income Tax Return (ITR) form or Certificate of Income Tax deducted at the source of salary;
- For self-employed individuals:
  - A copy of your business licence;
  - The company bank statement of the latest 6 months;
  - Income Tax Return (ITR).

What type of visa do I need?

Since the visa requirements may vary for country to country, as well as the nature of your stay in Europe, the most suitable visa may not be always clear. The short list mentioned in this section gives a general idea of the needed documents, but exceptions may apply. Therefore, it is strongly recommended to get in contact with the consulate or embassy of the target country in Brazil, to clarify all possible questions. A list with the websites of all EU embassies is found in Section 9.

Sources:

[1] Europa.eu

[2] EtiasVisa.com

[3] SchengenVisaInfo.com

9. ADDITIONAL INFORMATION

Additional information regarding all topics covered in this document can be found in the links below:

Useful Links	
ENRICH in Brazil website	Link
INCOBRA website	Link
European Union	Link
European Commission	Link
Delegation of the European Union to Brazil	Link
Roadmap for EU-Brazil S&T Cooperation	Link
International Cooperation Brazil-EU in R&I	Link
FINEP – Financiadora de Estudos e Projetos	Link
Economic Indicators	
Eurostat	Link
CIA World Factbook	Link
Opening a business entity in Europe	
EU Practical guide to doing business in Europe	Link
Enterprise Europe Network	Link
StartUp Europe	Link
SME Self-assessment questionnaire	Link
Horizon 2020	
Horizon 2020 website	Link
H2020 Factsheet	Link
H2020 National Contact Points for Brazil	Link
H2020 Work Programme 2018-2018	Link
EC Partner Search	Link
EC Project Search	Link
Research and Innovation Observatory	Link
Horizon Europe	Link

Other funding opportunities	
EURAXESS	Link
EURAXESS Latin America and Caribbean page	Link
European Research Council (ERC)	Link
COSME Programme	Link
InnovFin	Link
Programme for Employment and Social Innovation (EaSI)	Link
Creative Europe	Link
Living and Working in Europe	
Living in the EU	Link
European Job Mobility Portal (EURES)	Link
Schengen Visa Policy	Link
Schengen Visa Info	Link
EU Embassies in Brazil	
Austria	Link
Belgium	Link
Bulgaria	Link
Croatia	Link
Cyprus	Link
Czech Republic	Link
Denmark	Link
Estonia	Link
Finland	Link
France	Link
Germany	Link
Greece	Link
Hungary	Link
Ireland	Link
Italy	Link
Latvia	Latvia has no diplomatic representation in Brazil, only honorary consulates (Link)

Lithuania	General Consulate (Link)
Luxembourg	General Consulate (Link)
Malta	General Consulate Information (Link)
Netherlands	Link
Poland	Link
Portugal	Link
Romania	Link
Slovakia	Link
Slovenia	Link
Spain	Link
Sweden	Link
United Kingdom	Link

ENRICH
EUROPEAN NETWORK OF RESEARCH AND INNOVATION CENTRES AND HUBS, BRAZIL

CONTACT US AT:

brazil@enrichcentres.eu

ENRICH in Brazil is made possible with the support of the CEBRABIC project and its partners

Fraunhofer IPK

Fraunhofer Institute for Production Systems and Design Technology (IPK)

ANPEI

CNI National Confederation of Industry Brazil
CNI. THE STRENGTH OF THE BRAZILIAN INDUSTRY

CONFAP

ebn innovation network

DLR Project Management Agency

FFG Österreichische Forschungsförderungsgesellschaft

IASP International Association of Science Parks and Areas of Innovation

RCISD smart. flexible. innovative.

spi 20 1996-2016 Sociedade Portuguesa de Inovação

Sabancı Universitesi

UNICAMP

ENRICH

EUROPEAN NETWORK OF RESEARCH AND INNOVATION CENTRES AND HUBS, BRAZIL

Authors:

Fraunhofer Institute for Production Systems and Design Technology

Status:

November 2018

ENRICH is an initiative of the European Union, executed in Brazil by the CEBRABIC project, that has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 733531. Responsibility for the information and views set out in this publication lies entirely with the authors.