





In a nutshell

In 2020, Bulgaria's GDP stood at BGN 98.4 billion (EUR 50.2 billion), marking an increase of 20.2% compared to 2010 and a 4.2% decline over the previous year.

The decline was mainly due to the precautionary measures taken to tackle the COVID-19 global pandemic.

While the **number of enterprises** in the broad construction sector increased by 23.2% between 2010 and 2020, the **volume index of production** in the broad construction sector declined by 12.6% between 2015 and 2020. This was mainly due to 21.8% and 5.2% declines registered in construction of civil engineering and construction of buildings respectively, over the reference period, which mirrored the macro-economic trend.

Volume index of production in broad construction sector between 2015 and 2020



The total **turnover** of the Bulgarian broad construction stood at EUR 11.8 billion in 2018, marking an increase of 18.9% compared to 2010 (EUR 9.9 billion). This further increased to EUR 14.3 billion in 2020¹, representing an 44.2% increase since 2010. This overall increase was driven by growth in sub-sectors including manufacturing (+62.5%), real estate activities (47.8%), narrow construction (+44.0%) and architectural and engineering activities (+8.0%) sub-sectors over the 2010-2020 period, respectively.

Turnover in the broad construction sector between 2010 and 2020



Similarly, the **gross operating surplus** of the broad construction sector increased to EUR 2.1 billion in 2018², marking a 52.9% growth compared to 2010 (EUR 1.4 billion). This increase was driven by growth in the real estate activities (+106.8%), followed by narrow construction (+45.4%) and manufacturing (+38.2%) sub-sectors over the 2010-2018 period. Correspondingly, the **gross operating rate** of the broad construction sector, an indicator of the sector's profitability, stood at 17.8% in 2018³ (EU-27 average: 16.7%), a 3.9 percentage point (pps) increase since 2010.

In terms of employment, there were 293,347 **persons employed** in the Bulgarian broad construction sector in 2020, an increase of 6.3% over 2010. This was driven by the growth in the sub-sectors in terms of person employed including the real estate activities (+14.3%), narrow construction (+6.7%) and architectural and engineering activities (+0.9%) sub-sectors between 2010 and 2020.

Number of persons employed in the narrow construction sub-sector between 2010 and 2020



There are several crucial issues hindering the sustainable development of the Bulgarian construction sector. Firstly, the issue of rising number of bankruptcies declared by the broad construction sector companies. In fact, the number of **company deaths** in the real estate activities, architectural and engineering activities and narrow construction sub-sectors significantly rose by 810.8%, 459.8% and 164.9% respectively over the 2010-2018 period.

Secondly, the issue of **late payments** by the customers is also prevalent in the sector. The outbreak of COVID-19 pandemic has made the situation even more difficult.

According to the European Payment Report 2021, around half of SME respondents (47.0%) feel that issues with late payment have significantly hindered investment in strategic growth initiatives.

Thirdly, the continuing shortage of skilled and professional workforce in the construction sector continues to be a major concern. The government developed several initiatives to address this particular issue.

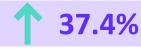
The **housing market** in Bulgaria grew substantially in 2020 despite the challenges stemming from the COVID-19 pandemic, with residential property prices continuing to grow, albeit at a slower pace compared to the pre-crisis. In fact, the **house price index** for total dwelling grew by 37.4% in 2020 over 2015, with the index for **existing dwellings** and **new dwellings** increasing by 40.0% and 33.0% respectively. The market was mainly supported by a growing housing demand, fuelled by the continuing decline in interest rates⁴.

The growth trend steadily accelerated with the postpandemic recovery: Housing prices growth accelerated to 9.1% year-on-year in Q2, up from 7.5% year-on-year in Q1, according to the National Statistics Institute⁵. Both investors and households seem favour housing as an investment, as deposits interest rates are decreasing.

Under its Recovery and Resilience Plan (RRP), worth EUR 6.5 billion, Bulgaria has allocated EUR 947.0 million towards energy efficiency improvement initiatives including renovation. These measures target multifamily residential buildings, state and municipal buildings, and industrial and commercial buildings⁶.

The plan proposes a dedicated programme to finance stand-alone house energy efficiency measures such as the purchase of energy efficient heat-pumps, solar systems for household heat supply and photovoltaic (PV) systems in buildings that are not connected to heat and gas transmission networks.

House price index between 2015 and 2020



With regards to the **investment in non-residential construction and civil engineering**, Bulgaria has planned to invest around BGN 6.5 billion (EUR 3.3 billion) in the construction of railway infrastructure on its territory jointly with the European Union (EU)⁷.

In the Bulgaria's Convergence Programme (2021-2023), an increase of the subsidy by BGN 50.0 million (EUR 25.5 million), 0.04% of the projected GDP, for current maintenance and operation of the railway infrastructure for 2021 has been proposed⁸.

Furthermore, Bulgaria has allocated around BGN 1,309.2 million (EUR 667.7 million) for the digitalisation of its railway transport through modernisation of safety and energy efficiency systems on railway lines of the main and wide ranging TEN-T network⁹. These measures would contribute to economic recovery as well as benefit the construction sector.

The outbreak of COVID-19 pandemic has significantly impacted the economic landscape of the country. In July 2021, the interim government proposed to amend the 2021 fiscal budget and use surplus revenue to boost state pensions and prepare the country for any upsurge in the COVID-19 pandemic¹⁰. This may in turn affect potential opportunities for growth for the construction sector (in the case where investments were for instance investments for infrastructure would be redirected to other sectors). That being said, several governmental measures – though not construction sector-specific, are expected to contribute to benefit the sector and its economic operators¹¹.

The overall outlook for the Bulgarian broad construction sector is promising in the long run, primarily supported by increased investments in public infrastructure backed by EU funding.

Table of Contents

In a nutshell	2
1 Key figures	5
Construction market	5
Productivity	6
Turnover and profitability	6
Employment	7
2 Macroeconomic indicators	9
Economic development	
Demography and employment	9
Public finance	10
Entrepreneurship and access to finance	10
3 Key economic drivers of the construction sector	12
Business confidence	12
Domestic sales	12
Export of construction-related products and services	13
Access to finance in the construction sector	14
Access to housing	14
Infrastructure	16
4 Key issues and barriers in the construction sector	
Company failure	17
Trade credit	17
Late payment	18
Time and cost of obtaining building permits and licenses	18
Skills shortage	19
Sector and sub-sector specific issues	20
5 Innovation in the construction sector	22
Innovation performance	22
Eco-innovation and digitalisation	22
6 National and regional regulatory framework	25
Policy schemes	25
Building regulations	26
Insurance and liability related regulations	
7 Current status and national strategies to meet Construction 2020 objectives	
TO 1 – Investment conditions and volumes	28
TO 2 – Skills	29
TO 3 – Resource efficiency / Sustainable construction	31
TO 4 – Single Market	
TO 5 – International competitiveness	
8 Outlook	34

Key figures

Construction market

In 2020¹², there were 62,470 enterprises operating in the broad construction sector in Bulgaria, representing an increase of 23.2% over the 2010 level (50,714 enterprises). In 2020, the narrow construction and the real estate activities sub-sectors accounted for 42.8% and 37.7% of the total, respectively. The number of enterprises in the real estate activities sub-sector represented the highest growth (+31.4%) over the 2010-2020 period, ending at 23,532. It was followed by the narrow construction (+26.3%) and the architectural and engineering activities (+9.2%) sub-sectors, standing at 26,733 and 8,903 enterprises respectively in 2020. On the other hand, the number of enterprises in the manufacturing sub-sector decreased by 5.5% over the same period.

Number of enterprises in the narrow construction sub-sector between 2010 and 2020

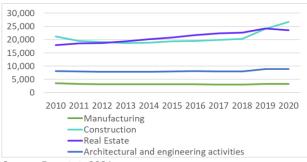


The volume index of production in broad construction sector dropped by 12.6% over the 2015-2020 period. Production in construction of civil engineering and construction of buildings declined by 21.0% and 5.2% respectively over the reference period. This may relate to the advent of the COVID-19 pandemic.

Production in the construction of buildings sub-sector between 2015 and 2020

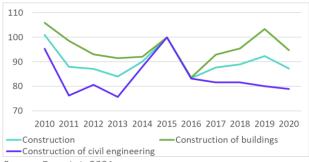


Figure 1: Number of enterprises in the Bulgarian broad construction sector between 2010 and 2020



Source: Eurostat, 2021.

Figure 2: Volume index of production in the Bulgarian construction sector between 2010 and 2020 (2015=100)



Source: Eurostat, 2021.

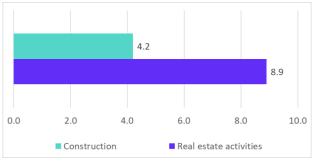
The total added value of the broad construction sector¹³ grew by 74.4% in the 2010-2020 period, amounting to EUR 4.3 billion in 2020¹⁴.

The narrow construction sub-sector accounted for 56.0% of the total added value of the broad construction sector in 2020, followed by the real estate activities (24.4%), the manufacturing (12.1%) and the architectural and engineering activities (7.5%) sub-sectors. All the sub-sectors except architectural and engineering activities registered growth of over 60% between 2010 and 2020.

The **share of gross value added** of the real estate activities sub-sector in the GDP reached 8.9% in 2020, below the EU-27 average of 10.3%. Similarly, for the narrow construction sub-sector, it stood at 4.2% in 2020, slightly below the EU-27 average of 5.1%.

Currently, there are six regions in Bulgaria, namely *Severozapaden*, *Severen tsentralen*, *Severoiztochen*, *Yugoiztochen*, *Yugozapaden* and *Yuzhen tsentralen*. Regional disparities continue to remain significant, with the *Yugozapaden* region representing 48.1% and 34.8% of the gross value added of the narrow construction and the real estate activities sub-sectors in 2018¹⁵, respectively. *Severozapaden* and *Severen tsentralen* continue to have the lowest gross value added both in narrow construction (3.0% and 6.1%) and real estate activities (10.5% and 10.0%) sub-sectors for the same period, respectively.

Figure 3: Gross value added as a share of GDP in the Bulgarian broad construction sector in 2020 (%)



Source: Eurostat, 2021.

Productivity

Overall, apparent labour productivity¹⁶ in the Bulgarian broad construction sector increased from EUR 8,852 in 2010 to EUR 14,911 in 2018¹⁷ (+68.5%), remaining significantly below the EU-27 average of EUR 51,960. The real estate activities sub-sector experienced the highest increase in labour productivity, growing from EUR 14,300 in 2010 to EUR 25,597 in 2020 (+79.0%), followed by the narrow construction sub-sector increasing from EUR 7,300 to EUR 12,227 over the 2010-2020¹⁸ period (+67.5%). Similarly, the labour productivity in the manufacturing sub-sector grew by 64.2% from EUR 8,488 in 2010 to EUR 13,933 in 2020¹⁹, whereas the architectural and engineering activities sub-sector recorded an increase of 12.5%, from EUR 13,700 to EUR 15,412 during the same period.

Major barriers to productivity growth include the lack of skilled labour, challenging business environment, slower uptake of digital technologies and insufficient investment in research and development, particularly in intangible assets²⁰. All these factors are, in turn, jeopardising the capacity of the sector to attract capital investments.

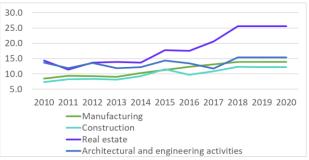
Productivity in the real estate activities sub-sector between 2010 and 2020



Productivity in the narrow construction sub-sector between 2010 and 2020



Figure 4: Labour productivity in the broad construction sector in Bulgaria between 2010 and 2020 (EUR k)



Source: Eurostat, 2021.

Turnover and profitability

The total turnover of the Bulgarian broad construction stood at EUR 11.8 billion in 2018, representing an increase of 18.9% compared to 2010 (EUR 9.9 billion). This further increased to EUR 14.3 billion in 2020²¹, marking a 44.2% increase since 2010. This growth was driven by a 62.5%, 47.8%, 44.0% and 8.0% increase in manufacturing, real estate activities, narrow construction and architectural and engineering activities sub-sectors over the 2010-2020 period, respectively. Overall, 70.5% of the total turnover was generated by the narrow construction sub-sector, followed by the manufacturing (13.2%), real estate activities (11.4%) and architectural and engineering activities (4.9%) sub-sectors.

Total turnover in the Bulgarian broad construction sector between 2010 and 2020

† 44.2%

The gross operating surplus of the broad construction sector amounted to EUR 2.1 billion in 2018²², registering a 52.9% increase compared to 2010 (EUR 1.4 billion). In terms of its sub-sectors, the largest increase was reported by the real estate activities (+106.8%), followed by narrow construction (+45.4%) and manufacturing (+38.2%) sub-sectors over the 2010-2018 period. In contrast, the architectural and engineering activities sub-sector witnessed a decline of 18.2% over the same period.

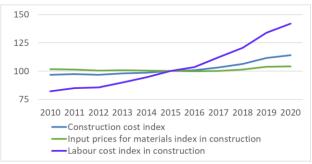
Gross operating surplus in the Bulgarian broad construction sector between 2010 and 2018



At the same time, the gross operating rate of the broad construction sector²³, an indicator of the sector's profitability, stood at 17.8% in 2018²⁴, a 3.9 pps increase since 2010. This is above the EU-27 average of 16.7% in 2018. In terms of sub-sectors, the real estate activities remain the most profitable sub-sector, with a gross operating rate of 49.7%, a 15.5 pps increase since 2010. Likewise, the narrow construction sub-sector recorded a growth of 2.7 pps since 2010, ending at 11.7% in 2018. In contrast, the architectural and engineering activities subsector witnessed the largest drop in the gross operating rate across sub-sectors (-4.3 pps between 2010 and 2018), reaching 23.6% in 2018. Similarly, the manufacturing sub-sector experienced a 1.1 pps decline compared to 2010, standing at 14.3% in 2018.

The cost is an important element affecting the profitability of construction sector in Bulgaria. The construction cost index increased by 14.0 index points (ip) in 2015-2020. This growth was driven by the significant growth in the labour cost (+41.9 ips, combined with a rise in input prices for materials (+4.2 ips) over the same period.

Figure 5: Construction cost index between 2010 and 2020 (2015=100)

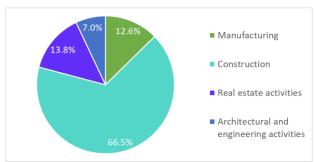


Source: Eurostat, 2021.

Employment

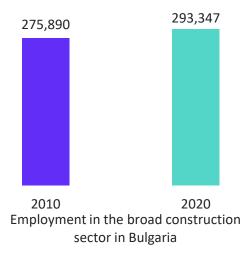
In 2020, 293,347 persons were **employed** in the Bulgarian broad construction sector, a growth of 6.3% compared to the 2010 level (275,890 persons). The narrow construction sub-sector employs 66.5% of the total workforce (i.e. 195,094 persons) of the broad sector, followed by the real estate activities (13.8% of the total workforce – 40,578 persons), the manufacturing (12.6% of the total workforce – 37,067 persons), and the architectural and engineering activities (7.0% of the total workforce – 20,608 persons) sub-sectors (**Error! R eference source not found.**).

Figure 6: Percentage of people employed by construction sub-sectors in Bulgaria in 2020



Source: Eurostat, 2021.

Except for the manufacturing sub-sector, which experienced a decline (-0.4% over the 2010-2020 period) in terms of persons employed, all the other sub-sectors registered a growth with the largest increase being in the real estate activities (+14.3%) sub-sector. This is followed by the narrow construction (+6.7%) and architectural and engineering activities (+0.9%) sub-sectors.



Similar to the gross added value, there are strong regional disparities in terms of the number of persons employed, driven by adverse demographic trends and increasing skills shortages. The region of *Yugozapaden* alone represents 42.5% and 52.4% of the total number of persons employed in the narrow construction and real estate activities sub-sectors in 2018²⁵, respectively. Conversely, the region of *Severozapaden* had the lowest proportion of persons employed in the broad construction sector, with the narrow construction and real estate activities sub-sectors engaging only 5.0% and 4.1% of the total persons employed in the sub-sectors in 2018²⁶, respectively.

As for employment by specific occupation, the number of managers, plants and machine operators and assemblers and clerical support workers in the narrow construction sub-sector declined by 59.8%, 45.7% and 27.4% respectively between 2010 and 2020. Similarly, in the manufacturing sub-sector, the number of clerical support workers and managers declined by 33.6% and 31.4% respectively during the same reference period. In contrast, the number of skilled agricultural, forestry and fishery workers in the real estate activities sub-sector experience an increase of 72.4% between 2010 and 2020.

Number of managers in the narrow construction sub-sector between 2010 and 2020

The number of **self-employed** workers in the narrow construction sub-sector increased by 16.1% from 25,500 in 2010 to 29,600 in 2020, representing 9.7% of the self-employed in the general economy, which is slightly below the EU-27 average of 11.7%. In parallel, **full-time employment** in the narrow construction sub-sector decreased by 8.7%, between 2010 and 2020. In contrast, a notable increase of 31.6% was recorded in the real estate activities sub-sector during the same period.

Macroeconomic indicators

Economic development

In 2020, the economic activity in Bulgaria declined markedly due to the COVID-19 pandemic. Private consumption and business sentiments were largely affected by the introduction of containment measures²⁷.

Bulgaria's **GDP** amounted to BGN 98.4 billion (EUR 50.2 billion) in 2020, an increase of 20.2% compared to 2010 and a 4.2% decline over the previous year. In 2020, Bulgaria's potential GDP stood at BGN 101.7 billion (EUR 51.9 billion), translating into a negative output gap of -3.2%. This indicates that the economic output is below the economy's full capacity for output.

The **inflation rate** in Bulgaria has been dropping continuously since 2011 and displaying a deflationary trend since 2014 (-1.3% in 2016) due to declining import prices and subdued domestic demand²⁸. However, it picked up in 2017 and reached 1.2% in $2020^{29,30}$.

In June 2021, the Bulgarian government and the central bank officials declared aiming to adopt the euro currency from January 1, 2024. In parallel, they will start payments in euros without any transitional period once it joins the Euro zone³¹.

Bulgaria's GDP between 2010 and 2020



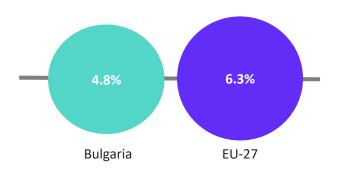
Demography and employment

The COVID-19 pandemic has worsened the problem of unemployment in the country. In fact, the overall **unemployment rate** in Bulgaria worsened in 2020, reaching 4.8% (as compared to 4.1% in 2019). This is nevertheless below the EU-27 average of 6.3%. Similarly, the youth unemployment rate (below the age of 25) stood at 14.2% in 2020, well above 8.9%

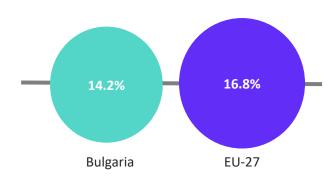
recorded in 2019 and below the EU-27 average of $16.8\%^{32}$.

According to the National Statistical Institute, more than 361,000 people were registered as unemployed between February and December 2020³³.

Unemployment rate in 2020



Youth unemployment rate in 2020



In terms of demographics, the **total population** in Bulgaria stood at 7.0 million in 2020. It is projected to decrease by 7.2% by 2030 and by another 18.6% until 2050, reaching to 5.7 million. Additionally, **net migration** has been negative in Bulgaria since the 2000s. It declined from 2010 (-17,683) to 2013 (-1,108), before picking up in 2016 (-9,329) and decreasing again in 2019³⁴ (-2,012). This trend is driven by Bulgarians searching for higher income opportunities in other EU Member States.

Projected population evolution between 2020 and 2030



In 2020, Bulgaria's working age population accounted for 64.0% of the total. However, demographic projections foresee a substantial ageing of the population, with the share of those aged 65 or more rising to 30.7% by 2050. This indicates there will be a greater demand for health and caring facilities in the mid to long-term future. In this regard, the government of Bulgaria has adopted a National strategy for long-term care and an action plan for 2018-2021. With this strategy, the government aims to reform the system, restructure and close its 161 specialised institutions having about 11,000 clients. This is expected to be completed by 2034³⁵. In parallel, the work age population will strongly decrease from 64.0% in 2020 to 55.7% in 2050.

Public finance

In 2020, the **general government expenditure** in Bulgaria accounted for 42.9% of GDP, above than in 2019 (36.3%) but below the EU-27 average of 53.4%. The same year, **general government deficit** reached -3.4% of GDP, as compared to the EU-27 average (-6.9%). The **general government gross debt** stood at 25.0% of GDP, substantially lower than EU-27 average of 90.7%. The general government consumption expenditure witnessed a GDP increase of 2.6 pps in 2020 (19.4%) compared to 2019 (16.8%). Bulgaria's fiscal policy has provided counter-cyclical support to the economy.³⁶.

In July 2021, the interim government of Bulgaria proposed to amend the 2021 fiscal budget and use surplus revenue to boost state pensions and prepare the country for any upsurge in the COVID 19 pandemic³⁷.

General government expenditure in 2020 (% of GDP)

EU-27 Bulgaria

42.9%

Regarding monetary policy, the Bulgarian Central Bank has cut the **official interest rate** over the last years, from 5.1% in 2008 to 0% in 2016 and is still at 0% 2021³⁸, in order to encourage consumption and investment.

Entrepreneurship and access to finance



According to the World Bank Doing Business 2020 report, with 85.4 score, Bulgaria ranked 113th out of 190 countries in ease of starting a business in 2019. This is a decline in comparison with previous year's ranking (99th)³⁹.

As per the report, starting a business in Bulgaria requires 7 procedures, taking 23 days and costing 0% of income per capita⁴⁰.

Bulgaria's business environment is not geared towards fostering entrepreneurship. The country scores the lowest in terms of entrepreneurship intentions, as only 5.0% of Bulgarian population plan to start a business in the next three years, according to Global Entrepreneurship Monitor report 2019⁴¹. In addition, only 27.0% of entrepreneurs are encouraged with the possibility of increasing their independence or income, as opposed to a lack of other options to work, the lowest rate in the EU⁴².

Despite Bulgaria's weak performance in entrepreneurship, some scale-ups have succeeded. In 2018, there were 275 scale-up enterprises in Bulgaria, with an average turnover of BGN 8.0 million (EUR 4.1 million). The main sectors for Bulgarian scale-ups consist of Information and Communications Technology (ICT), construction, transport and real estate⁴³.

In recent years, the Bulgarian government has taken policy efforts with regards several entrepreneurship. Some of these initiatives include programme support that provides entrepreneurship training, entrepreneurship voucher schemes and a digital guide to support help SMEs navigate the regulatory framework⁴⁴.

In terms of access to finance, Bulgaria ranked 67th out of 190 countries for the ease of getting credit, as per the 2020 Doing Business Report⁴⁵, lower than previous year's rank (60th)⁴⁶.

53.4%

SMEs in Bulgaria have access to traditional banking finance. In the last six months (from April 2020 to September 2020), 9.6% of SME loan applications were rejected, above the EU-27 average of 6.3%. In addition, 8.6% of SMEs think that the access to public financial support, including guarantees, has improved in the country in the last six months, well below the EU-27 average of 26.2%⁴⁷.

Moreover, lending to non-financial corporations in construction sector slightly declined in 2020, with **outstanding loans** reaching BGN 3.0 billion (EUR 1.5 billion) in 2020. This represents a decline of 0.2%

compared to 2019 but a substantial decline (-30.4%) compared to BGN 4.3 billion (EUR 2.2 billion) in 2010.

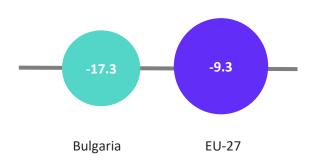
In response to the COVID-19 crisis, the Bulgarian government took several measures to help SMEs in 2020. These measures included liquidity support worth EUR 500 million in guarantees to maintain SMEs' access to finance, and the postponement of several administrative deadlines (i.e. submission of annual tax declarations and annual financial statements)^{48,49}.

Key economic drivers of the construction sector

Business confidence

During 2010-2020 period, the **consumer confidence indicator** has slightly recovered, standing at -28.6 in 2020 compared to -31.3 in 2010. Nevertheless, it remains below the EU-27 average of -14.6 and the 2019 level of -24.7. Conversely, the **industry confidence indicator** has deteriorated in 2020, ending at -11.8, below the 2010 level of -9.6 as well -1.1 recorded in the previous year. This is above the EU-27 average of -14.4. Moreover, the **construction confidence indicator** has improved, going from -37.6 in 2010 to -17.3 in 2020. This is well below EU-27 average of -9.3 and the 2019 level of -6.1.

Construction confidence indicator in 2020



In 2020, the **investment ratio** declined marginally to 19.1% as compared to 19.3% in 2019. This is also below the 2010 level (22.0%) and the EU-27 average of 21.8% in 2020.

In terms of **investment per worker**, the architectural and engineering activities exhibited the highest growth during the 2011⁵⁰-2018⁵¹period, increasing by 19.4% from EUR 3,100 to EUR 3,700. It was followed by the narrow construction and real estate activities sub-sectors which registered growth of 18.2% and 17.7% respectively, rising from

EUR 4,400 to EUR 5,200 and from EUR 58,200 to EUR 70,600, during the same period.

According to the National Statistical Institute (NSI), the overall business sentiment indicator rose by 2.1 pps month-on-month in March 2021. This was mainly supported by a more favourable business climate in the construction sector⁵².

The composite indicator in the Bulgarian construction sector improved by 3.8 pps in March 2021. This was mainly due to more optimism among the entrepreneurs and positive expectations about the business environment⁵³.

Domestic sales

The ranking of the five **most domestically sold** construction products in Bulgaria in 2019⁵⁴ has remained unchanged since 2012. The top five most domestically sold construction products are presented in Table 1, including a comparison with the top sellers in the EU-27. These represented 54.5% of total domestic construction product sales in 2019.

Table 1: 5 most domestically sold construction products in Bulgaria and in the EU in 2019⁵⁵

		Bulgaria		EU-27
	Product	Value (EUR m)	Share in construction product domestic sales (%)	Product
1	Ready-mixed concrete (group 236310)	224.5	16.7	Other structures, etc. (group 251123)

		Bulgaria		EU-27
	Product	Value (EUR m)	Share in construction product domestic sales (%)	Product
2	Other structures, etc. (group 251123)	168.4	12.5	Doors, windows, etc. (group 251210)
3	Portland cement, aluminous cement, etc. (group 235112)	147.8	11.0	Ready-mixed concrete (group 236310)
4	Doors, windows, etc. (group 251210)	114.3	8.5	Prefabricate d buildings of metal (group 251110)
5	Prefabricate d buildings of metal (group 251110)	77.6	5.8	Prefabricate d structural components for building, etc. (group 236112)

Source: PRODCOM, 2021.

Export of construction-related products and services

The ranking of the top five most exported construction products has changed since 2010⁵⁶. Nonetheless, the top five most exported construction products according to the most recent data are summarised in Table 2. Together, they made up 53.3% of all construction products exports in 2019.

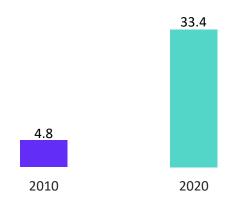
Table 2: 5 most exported construction products in Bulgaria and in the EU in 2019^{57}

		Bulgaria		EU-27
	Product	Value (EUR m)	Share in construction product export sales (%)	Product
1	Ceramic tiles and flags (group 233110)	84.5	17.9	Ceramic tiles and flags (group 233110)
2	Particle board (group 162112)	49.8	10.6	Other structures, etc. (group 251123)

		Bulgaria		EU-27
	Product	Value (EUR m)	Share in construction product export sales (%)	Product
3	Plaster products for construction (group 236210)	41.7	8.8	Fibreboard of wood (group 162115)
4	Other structures, etc. (group 251123)	40.5	8.6	Doors, windows etc. (group 251210)
5	Pellets and briquettes, etc. (group 162915)	35.1	7.4	Marble, travertine, alabaster, etc. (group 237011)

Source: PRODCOM, 2021.

In terms of **cross-border provision of construction services**⁵⁸, Bulgaria exported EUR 33.4 million worldwide in 2020, substantially above the 2010 value (EUR 4.8 million) but well below its 2012 peak (EUR 158.4 million). In fact, in 2020 almost 89.2% of exports (EUR 29.8 million) were destined to the EU-27 countries, compared to 52.1% (EUR 2.5 million) in 2010. In parallel, Bulgaria imported a total of EUR 6.9 million in construction services in 2020, an 88.7% decline since 2010 (EUR 60.9 million), with EUR 5.5 million from EU-27 countries and EUR 1.4 million from outside the EU-27. Bulgaria, therefore achieved a **trade surplus** of EUR 26.5 million in 2020.



Cross-border provision of construction services worldwide in million EUR

Access to finance in the construction sector

According to the SME access to finance of enterprises (SAFE) 2020 results, on average, 6.5% of the respondent SMEs in Bulgaria consider 'access to finance' as the most important problem they face, which is below the EU-27 average of 9.9%⁵⁹.

An additional 5.6% of Bulgarian SMEs consider 'access to finance' to have been an important concern for their enterprise in the past six months (from April 2020 to September 2020), which is higher than the EU-27 average of 4.8%⁶⁰.

In Bulgaria, bank loans had been the major source of financing, as 46.0% of SMEs reported it to be relevant and 14.0% reported of using it in 2020. Leasing as a source of finance was relevant for 44.0% of SMEs, out of which only 13.0% reported to have used it in 2020. As for credit lines, these were relevant for 61.0% of SMEs, and 28.0% of them reported to have used it recently. Majority of the financing received by SMEs, was utilised as working capital, followed by fixed investments, refinancing, hiring/training and new products/services in 2020. Between April and September 2020, around 16.0% of SMEs in Bulgaria actually applied for bank loans (35.0% in the EU-27 average) and 7.0% did not apply because of fear of rejection (4.0% in the EU-27 average). With regards to credit lines, around 24.0% of SMEs in Bulgaria actually applied for it (31.0% in the EU-27 average), whereas 7.0% did not apply because of fear of rejection (4.0% in the EU-27 average)61.

According to EIB Investment Survey 2020, 58.0% of firms in the construction sector report 'availability of finance' as a long-term barrier⁶².

As per the report, one in five construction firms (22.0%) are dissatisfied with the collateral requirements demanded. In addition, 21% firms in the Bulgarian construction sector are pessimistic about the availability of internal finance over the next 12 months. This pessimism stands at 8.0% in terms of availability of external finance in the sector⁶³.

Several initiatives have been taken in Bulgaria to improve access to finance. In September 2020, the Fund of Funds (FoF) in Bulgaria established a BGN 38.0 million (EUR 19.4 million) acceleration and seed financing fund jointly with local financial intermediary Vitosha Venture Partners to support startups⁶⁴.

In response to the COVID-19 crisis, in January 2021, the European Investment Fund (EIF) and Bulgarian government entered into an agreement to support SMEs and mid-caps with an overall financing envelope of EUR 800.0 million⁶⁵.

The facility supports working capital loans to hard-hit small businesses in Bulgaria that are facing disruption in their production and are therefore impacted by a liquidity squeeze due to the COVID-19 pandemic. It provides increased access to finance through capital relief and loss protection through a portfolio guarantee to financial intermediaries for portfolios of new debt finance⁶⁶.

Access to housing

The number of **households** in Bulgaria totalled 2.7 million in 2020, exhibiting a decrease of 1.6% compared to 2010 level. The country has a high **urbanisation rate**, with 46.3% of the population living in cities and greater cities in 2018⁶⁷, compared to 43.2% in 2010.

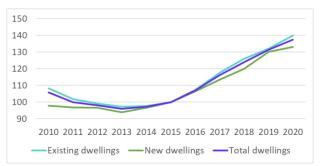
In parallel, the **mean equivalised net income** experienced a 69.4% growth since 2010, amounting to EUR 5,927 in 2020. These factors, together with the lowest mortgage interest rates since 2010 (**Error! Reference source not found.**) are the driving f orce behind the growth of the housing market, as shown by the slowly recovery of house prices since 2014 (**Error! Reference source not found.**). In fact, the **mortgage rate for over 5 years original maturity** reduced to 3.2% in 2020, below the 2010 level of 9.3% and 3.7% recorded in the previous year. The **house price index** for total dwelling in 2020 grew by 37.4% over the 2015 level, with the index for existing dwellings and new dwellings growing 40.0% and 33.0% respectively during the same period.

House price index for total dwelling between 2015 and 2020



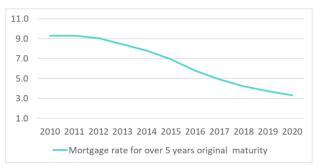
37.4%

Figure 7: House price index in Bulgaria over 2010-2020 (2015=100)



Source: Eurostat, 2021.

Figure 8: Mortgage rates for loans for over 5 years original maturity over the period 2010-2020 (%)



Source: ECB MFI Interest Rate Statistics, 2021.

According to the latest data published by the Bulgarian National Statistics Institute, housing prices increased in all the major cities. Housing price in Sofia, Plovdiv, Burgas and Varna increased by 11.9%, 8.1%, 4.3% and 27.5% year-on-year in Q2 2021, respectively⁶⁸. Such growth trend gained momentum towards the beginning of 2021 and did not seem to suffer from a major slowdown because of the COVID-19 pandemic.

After reaching its peak in 2008, Bulgarian banks' lending residential house for purchases deteriorated continuously until 2014, after which the sector recorded some improvements driven by Bulgaria's targeted housing policies. Benefiting from further funding from the EU, the sector has currently surpassed the 2010 levels. In 2019⁶⁹, total outstanding residential loans amounted to EUR 6.4 billion, representing an increase of 71.9% compared to 2010 level of EUR 3.7 billion. In Bulgaria, only 2.3% of the population were owners with a mortgage in 2020, whereas 82.0% were owners without outstanding mortgage.

In terms of the supply side of the housing market, the number of newly built dwellings fell by 2.3%, reaching a total number of 15,415 in 2020,

compared to 15,771 in 2010^{70} . However, this is more than the lowest recorded value over the period 2010-2018 of 7,806 in 2015. Additionally, the number of building permits for residential buildings increased by 19.8% since 2010, reaching 5,860 in 2020, compared to 4,891 in 2010^{71} .

Number of building permits for residential buildings between 2010 and 2020



In the first quarter 2021, the number of housing transactions grew by 17.0% compared to the same quarter of 2020. This is actually the strongest first quarter in the last five years⁷².

According to Raiffeisenbank Bulgaria, the real estate market in Bulgaria remained stable in 2020 despite the coronavirus crisis, with residential property prices continuing to grow, albeit at a slower pace compared to the pre-crisis speed⁷³.

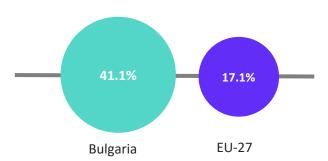
In 2020, the Bulgarian the real estate market was mainly supported by the continuing decline in interest rates and comparatively high demand for mortgage loans⁷⁴.

Besides, the **housing cost overburden rate**⁷⁵ stood at 16.0% in 2019, well above the EU-27 average of 9.4% and more than three times the 2010 level (i.e. 5.9%), showing a deterioration of housing affordability⁷⁶. In 2020, the situation slightly improved with a slight decline (14.4%). Bulgaria has a high **home ownership** rate i.e. 84.1% of the population owned their dwelling in 2019 as compared to EU-27 average of 69.8%. For 2020, this rate has increased to 84.3% of the total population. It further increases to 85.3% for the population whose income is **above 60.0% of the median equivalised income**, while it drops slightly to 81.4% for those **below 60.0% of the median equivalised income** in 2020.

The **overcrowding rate**⁷⁷ for Bulgaria was also very high, standing at 41.1% in 2019 (although declining since 2016), compared to the EU-27 average of 17.1%. It further reduced to 39.5% in 2020. Rising poverty rates, low levels of social housing stock, sub-standard housing conditions and lack of public investment are some of the driving factors behind such high overcrowding rate⁷⁸. Moreover, Bulgaria's **severe housing deprivation rate**⁷⁹ stood at 8.9% in

2019, while the EU-27 average was 3.8%⁸⁰. It also decreased to 8.6% in 2020.

Overcrowding rate in 2019



Infrastructure



According to the 2019 Global Competitiveness Report⁸¹, Bulgaria ranked 56th out of 141 economies in terms of its overall infrastructure quality⁸².

As per the report, Bulgaria ranked 26th for its railroad density, 62nd for the efficiency of its seaport services, 66th for the efficiency of its train services, 67th in road connectivity, 79th for the efficiency of its air transport services and 102nd in terms of the quality of its roads. The country's road density

improved by 75.0%, reaching 7.0km/km² in 2018 as compared to 4.0 km/km² in 2010. In contrast, its railroad density dropped slightly by 2.6% over the same period, totalling 37.0 km/km² in 2018.

Over the years, the financial assistance from the EU played an integral part in the sector's growth. Bulgaria's plan is to invest around BGN 6.5 billion (EUR 3.3 billion) in the construction of railway infrastructure on its territory jointly with the support of the European Union (EU) between 2021 and 2027⁸³.

In July 2021, Bulgaria's government announced to provide BGN 168.1 million (EUR 85.7 million) in co-financing for two key railway infrastructure projects, which benefit from EU financing under the Connecting Europe Facility (CEF) for Transport - the reconstruction of railway junctions near the cities of Sofia and Plovdiv⁸⁴.

The investment financing from EU has increased and is expected to remain high in the medium term. The majority of the public investment is used to finance road infrastructure and smaller construction projects. In the coming years, public investment in transport infrastructure is anticipated to rise, mainly driven by government financing⁸⁵.

Key issues and barriers in the construction sector

Company failure

During the 2010-2018 period, the number of **company births** in the narrow construction and architectural and engineering activities sub-sectors increased by 56.0% and 16.7%, from 2,018 to 3,148 and from 592 to 691 respectively. Conversely, in real estate activities sub-sector, the number company deaths fell by 3.9% from 2,644 to 2,540, in the same period.

Company births in the narrow construction sub-sector between 2010 and 2018



There has been a widespread increase in the number of bankruptcies declared by the companies in the Bulgarian broad construction sector. In fact, the number of **company deaths** in the real estate activities sub-sector increased by 810.8%, from 1,433 in 2010 to 13,052 in 2018. It was followed by the architectural and engineering activities and the narrow construction sub-sectors which experienced increases of 459.8% and 164.9% in the same period respectively. In the architectural and engineering activities sub-sector, the number of company deaths rose from 480 in 2010 to 2,687 in 2018, while it grew from 2,068 to 5,478 in the narrow construction sub-sector.

Company death in the narrow construction sub-sector between 2010 and 2018



The dramatic rise in the number of company deaths can be partially attributed to the country's inefficient insolvency framework. Nonetheless, in collaboration with the European Commission, the

Bulgarian authorities had identified existing gaps in the framework and have already established a roadmap to address these issues and reform the overall framework. These measures continue to be part of Bulgaria's commitments in order to apply for Exchange Rate Mechanism II (ERM II) accession⁸⁶.

Trade credit

According to the Survey on the Access to Finance of Enterprises (SAFE) 2020, trade credit constitutes a relevant source of financing for 29.6% of Bulgarian SMEs, above the EU-27 average of 27.7% in 2020⁸⁷.

However, only 14.3% of the SMEs applied this financing approach in the last six months, well below the EU-27 average of 31.4% in 2020. Additionally, among the respondents who applied and negotiated for trade credit financing, around 52.0% of the applicants received everything they applied for. This is also below the EU-27 average of 67.3% for the same⁸⁸. Moreover, there is no indication of increased needs to use trade credit with over 77.5% of respondents SMEs reporting their credit requirement remaining unchanged over the last 6 months. This is higher than the EU-27 average of 65.8%.

In parallel, 9.8% of respondents consider that trade credit availability improved in 2020 (compared to the EU-27 average of 13.5%). Around 16.4% of SMEs expect that the availability of trade credit will improve in the near future⁸⁹.

According to Payment Practices Barometer - Bulgaria 2020⁹⁰, more than one third (40.0%) of the Bulgarian B2B sales involved trade credit. This is well above the 34.0% average of last year.

The main reason for offering more trade credit during the COVID-19 economic crisis was to stimulate sales (as per 48.0% of respondent), followed by supporting trade (as per 27.0% of respondent) and staying competitive in a tougher economic environment (as per 24.0% of respondent)⁹¹.

Late payment

According to the CRIBIS D&B Payment Study 2020, 1.8% of respondent companies in Bulgaria reported late payments (for more than 90 days), an increase of 0.6 pps over the December 2019 level (1.2%). In 2020, about 20.8% of the companies made their payments by due date, a 1.4 pps increase over the 19.4% in December 2019⁹².



According to the Atradius Payment Practices Barometer, 76.0% of the Bulgarian respondents reported granting payment duration averaging 30 days or less for B2B invoices in 2020. This is the longest payment term of all of the countries in Eastern Europe⁹³.

As per the report, the COVID-19 pandemic-induced economic crisis led to a significant increase in the total value of overdue B2B invoices in 2020 (38.0%, up from 23% last year). However, the total value of B2B invoices written off decreased to 2.0% (from 5% in 2019)⁹⁴.

Moreover, the rise in late payments is also reflected in the lengthening of DSO (Days Sales Outstanding). 89.0% of businesses reported DSO increases up to 10.0% or more than before the pandemic. In particular, the survey results indicated a lower efficiency in the collection of long-outstanding receivables of high value, particularly from B2B customers in the agri-food, chemicals and constructions sectors⁹⁵.

According to the European Payment Report 2021, around half of Bulgarian businesses (47.0%) feel that issues with late payment have significantly hindered investment in strategic growth initiatives. Similarly, the same number of respondents feel late payments would prevent them hiring new employees (EU-27 average: 42.0%) and force them

to dismiss others (37.0% versus the EU-27 average of 32.0%)⁹⁶.

As per the European Payment Report 2021, 55.0% of the overall SME respondents have agreed to accept longer payment terms in order to avoid damaging client relationships. Also, 62.0% of the respondents feel that COVID-19 has motivated them to get better at managing the risk of late payments in their businesses⁹⁷.

Last, 69.0% of the SME respondents from Bulgaria prefer introduction of new legislations to solve the problem of late payments. This is well above the EU average of 59.0%⁹⁸.

Time and cost of obtaining building permits and licenses



According to the 2020 World Bank's Doing Business Report, Bulgaria ranked 43rd out of 190 in 2020 in terms of 'dealing with construction permits', same as last year's ranking⁹⁹.

As per the report, 18 procedures are required to obtain a construction permit in Bulgaria, as compared to 12.7 in the OECD high-income countries (

Table 3). The costs associated with getting a building permit in Bulgaria are also higher than the OECD average, amounting to 3.4% of the value of the warehouse¹⁰⁰, as opposed to 1.5% in the OECD high income. Conversely, Bulgaria performs better than the OECD high-income average in terms of the time necessary to obtain a construction permit. In Bulgaria, it requires 97 days to obtain a building permit, compared to 152.3 days in OECD high income countries.

Table 3: Construction procedures timing and costs in Bulgaria¹⁰¹

Procedure	Time to complete	Associated costs
Obtain current cadastral extract from the Agency for Geodesy, Cartography and Cadastre	1 day	BGN 90.0 (EUR 45.9)
Apply for VISA from the Chief Architect of the Municipality	3 days	BGN 80.0 (EUR 40.8)
Obtain decision from the Director of the Regional Inspectorate of Environment and Water	14 days	No charge

Procedure	Time to complete	Associated costs
Sign preliminary contracts with the water authorities	7 days	BGN 600.0 (EUR 306.0)
Request and obtain preliminary assessment of the building for its compliance with energy efficiency requirements from licensed company	5 days	BGN 2,601.0 (EUR 1,326.5)
Hire a construction supervision company for evaluation of the project and supervision during construction	7 days	BGN 9,150.0 (EUR 4666.5)
Obtain final construction approval from the Chief Architect of the Municipality	35 days	BGN 10,405.0 (EUR 5,306.6)
Obtain approval for opening a construction site and determining construction line and construction level	2 days	BGN 20.0 (EUR 10.2)
Obtain approval from Municipality once the superstructure is complete	4 days	BGN 1,500.0 (EUR 765.0)
Sign contract with water provider and receive connection	7 days	BGN 600 (EUR 306.0)
Obtain geodetic measurement from a licensed company	7 days	BGN 350.0 (EUR 178.5)
Map the building in the cadastral map and receive registration certificate	3 days	BGN 124.0 (EUR 63.2)
Request and obtain certificate for energy efficiency	7 days	BGN 500 (EUR 255.0)
Have the Construction Surveillance file a report on the completed construction	1 day	No charge
A technical passport is registered with the Chief Architect of the Municipality	3 days	No charge
File a copy of the registered technical passport with the Cadastre	1 day	No charge
Receive final inspection by the Municipality	1 day	No charge
Obtain approval of the building and occupancy permit from the Municipality	7 days	BGN 750.0 (EUR 382.5)

Source: Doing Business overview for Bulgaria, Word Bank, 2020.

Skills shortage



The number of job vacancies in the narrow construction sub-sector reached a new peak of 937 in 2020, representing a significant increase of 598.1% compared to the 2010 level of 134.

With regards to the real estate activities sub-sector, there were 92 vacancies in 2020, representing a 4.4% reduction from 97 since 2010 and a 73.5% decline since its peak of 348 in 2011.

Interest in the construction and engineering sector is on a declining trend as demonstrated by the declining number of the university students. In fact, the number of **tertiary students** in engineering, manufacturing and construction decreased by 29.2% between 2010 and 2019¹⁰². This was especially the case for students in engineering and engineering trades (-35.3%) as well as those architecture and building (-33.9%).

Number of tertiary students in engineering, manufacturing and construction between 2010 and 2019



Bulgarian businesses face difficulties in sourcing (skilled) workforce. Hiring skilled workers from non-EU member states could mitigate the issue.

In March 2021, Bulgaria adopted its new national strategy in the field of migration management "the National Strategy on Migration of the Republic of Bulgaria 2021-2025"¹⁰³.

The new strategy mainly focuses on highly skilled workers and aims to establish a facilitated regime for entry and residence under the conditions of mobility as a way of attracting highly qualified Third country national (TCN) workers¹⁰⁴.

Making the sector more attractive is also another way to mitigate labour shortage. On this front, Bulgaria has increased in 2021 the minimum wage to BGN 650.0 (EUR 286.0) per month, which is a 6.6% increase from minimum wage levels in 2020¹⁰⁵. In this regard, a National Competition "Best Young Builder" is conducted annually by the Ministry of Education and Science of Bulgaria., with The Chamber of Builders in Bulgaria being among its main partners. One of the main objectives of this competition is to raise the prestige of the construction profession by promoting good practices, applying new technologies and building materials and more¹⁰⁶.

The project "BUS League: Stimulating the demand for energy efficient construction skills", as part of Horizon 2020 program, aimed at addressing the challenges of finding a skilled workforce in the field of sustainable construction¹⁰⁷.

The project focuses on the practical activities to increase the capacity of skilled professionals in the stages of design, construction, operation and maintenance of buildings. One of the main tasks is to develop and implement a pan-European framework for the recognition of the qualifications of construction workers and specialists. The implementation period of the project is September 2020 to March 2023¹⁰⁸.

Nonetheless, the advent of COVID-19 pandemic has significantly changed the existing skill shortage situation. The issue is expected to become more critical as Bulgaria's working age population is predicted to decline from 64.0% in 2020 to 55.7% in 2050.

Sector and sub-sector specific issues

Material efficiency and waste management

Over the years, waste generated from construction and demolition activities (hazardous and non-hazardous) in Bulgaria increased substantially, from 27,109 tonnes in 2010 to 73,731 tonnes in 2018^{109,110}.

Moreover, Bulgaria generates 0.1% of the waste from construction and demolition activities in the total waste generation as per SMART WASTE partners. The Data for SMART WASTE partners'

respective EU Member States exhibit contribution of construction and demolition activities to the national total waste generation¹¹¹.

In terms of recycling of waste, the recycling rate of municipal waste for Bulgaria stood at 31.5% in 2018¹¹², below the EU-27 average of 47.2%¹¹³.

In March 2021, the National Statistical Institute of Bulgaria commenced the work on "Improving data for circular economy-packaging waste and construction waste" project¹¹⁴.

The implementation of the project is supported by a grant agreement with the European Commission. The aim of this project is to focus on streamlining the national data collection system for packaging (specifically lightweight plastic carrier bags) and construction and demolition waste. The duration of the project is 18 months and it will end in August 2022¹¹⁵.

Despite being one of the lowest municipal waste generators in the region, waste management continues to be a challenge for Bulgaria. It has one of the highest landfilling rates for municipal waste in the EU¹¹⁶. A separate 'pay-as-you-throw' principal was also formally introduced but will only be enforced as of 2022. For now, waste collection fees are still not based on waste generation in Bulgaria¹¹⁷.

In March 2020, the European Commission approved a EUR 77.0 million investment from the European Regional Development Fund to upgrade the integrated waste management system in the city of Sofia, Bulgaria. The overall objective is to construct a highly efficient plant for simultaneous producing heat and electricity while using fuel derived from unrecyclable municipal waste¹¹⁸.

Climate and energy

Emissions of greenhouse gases (carbon monoxide and dioxide, methane, nitrous oxides and particulate matter) from activities in the narrow construction and real estate activities sub-sectors amounted to 625,922 tonnes and 20,795 tonnes in 2019¹¹⁹, respectively. Emissions from activities in the narrow construction sub-sector registered growth of 13.3% in 2019¹²⁰ against the 2010 level (552,356 tonnes), while the real estate activities sub-sector recorded a decline of 7.1% since 2010 (22,389 tonnes).

Emissions of greenhouse gases in the narrow construction sub-sector between 2010 and 2019

13.3%

Bulgaria continues to be plagued by poor air quality due to high rate of fine particulate matter (PM2.5) concentrations primarily caused by the domestic heating sector using solid fuels and transport. The lignite-based Bulgaria power plants further result in excessive sulphur dioxide pollution. The country, backed by EU funding, has already launched pilot

projects to address air quality issues related to the residential heating and transport sectors. But these projects being still in early stages, it is too early to assess their actual impact¹²¹.

The construction sector is considered as the key for addressing climate change due to the energy savings potentials of the building stock. Newly built buildings (residential and non-residential) use less energy than old buildings, have better standards of insulation and air tightness.

Innovation in the construction sector

Innovation performance

According to the 2021 European Innovation Scoreboard, Bulgaria is an Emerging Innovator¹²².

Bulgaria's top scoring indicators include the Development of environment-related technologies, Design applications, and Trademark applications. The country's strongest innovation dimensions are Environmental sustainability and Employment impacts. Bulgaria has an above average share of Non-innovators without disposition to innovate and scores below on the Climate change related indicators¹²³.

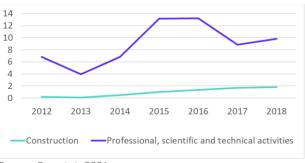
Business enterprise R&D expenditure (BERD) in the narrow construction sector increased by 872.9%, from EUR 0.2 million in 2012¹²⁴ to EUR 1.8 million in 2018¹²⁵ (Figure 9).

Similarly, BERD in professional, scientific and technical activities increased by 44.4%, from EUR 6.8 million in 2012¹²⁶ to EUR 9.8 million in 2018¹²⁷. Moreover, the annual average number of **construction-related patent applications** has remained stable at 2 over the 2010-2019¹²⁸ period.

BERD in professional, scientific and technical activities between 2012 and 2018



Figure 9: Business enterprise R&D expenditure (BERD) per construction sub-sector in Bulgaria over 2010-2018¹²⁹ (EUR m)



Source: Eurostat, 2021.

In parallel, the total R&D personnel (full-time equivalents – FTE¹³⁰) strongly increased. In the narrow construction sub-sector, the total R&D personnel significantly increased from 7 in 2012¹³¹ to 149 in 2018¹³². Likewise, the number of researchers (FTE) also grew from 5 in 2013 to 80 in 2018. The professional, scientific and technical activities sub-sector also reported strong increases over the period 2012-2018, in terms of the total R&D personnel and researchers (FTE), standing at 312 and 198 respectively.

Eco-innovation and digitalisation



According to the 2021 Eco-Innovation Scoreboard (Eco-IS), Bulgaria scored 50, in comparison to the EU-27 average of 121¹³³.

As per the report, Bulgaria is among the lowest performing EU Member States in the 2021 Index and categorised as 'Catching-up with eco-innovation'. Bulgaria scored 30 and 52 when it comes to the Eco-innovation inputs and Eco-innovation activities indicators respectively, which is well below the EU-27 average scores of 113 and 100 respectively.

In the context of Resource efficiency outcomes, the country ranked last among EU Members States with 17 score, considerably below the EU-27 average of 147¹³⁴.

Bulgaria faces several issues with regards to the boosting investment opportunities in eco-innovation and circular economy, promoting efficient use of resources through increasing energy efficiency, developing renewable energy sources and improving sustainability practices within the transport sector. Factors like low levels of research and innovation (R&I) investment, fragmented public science base, lack and ageing of skilled human resources and inefficient governance continue to hold back Bulgaria's productivity and economic growth potential¹³⁵.

According to the European Commission Digital Economy and Society Index (DESI) 2020, Bulgaria ranked last, with a 36.4 score, against the EU-28¹³⁶ average of 52.6¹³⁷.

According to the Index, Bulgaria's performance improved in terms of connectivity, particularly with regards to the wide availability of ultrafast and mobile broadband networks. The country also made significant improvements in e-governance as evident from rising number of users and a high score in providing digital public services for business¹³⁸.

Nonetheless, major indicators have not improved sufficiently to keep up the pace with the EU-28¹³⁹ average. Bulgaria's digital skills level is one of the lowest in the EU region. In terms of integration of digital technology, Bulgaria's performance is also well below the EU-28¹⁴⁰ average¹⁴¹.

According to SME Country Fact Sheet 2021, only 50.0% of small companies in Bulgaria have a website and only 7.2% of SMEs sell online, against the EU-27 averages of 76.0% and 17.0% respectively¹⁴².

Moreover, only 3.0% of the SMEs make cross-border sales with just 2.0% of their turnover coming from online segment¹⁴³.

In December 2019, the Bulgarian government introduced the national programme 'Digital Bulgaria 2025'. It defines the country's ambitions for modernising and ensuring a widespread implementation of intelligent IT solutions in all areas of the economy including construction¹⁴⁴.

The programme focuses on improving digital competences and skills by supporting ICT research and innovation, modernising school and tertiary education in the area of ICT, increasing the number of highly qualified ICT specialists and improving the digital skills of the workforce¹⁴⁵.

In addition, Bulgaria's Ministry of Transport, Information Technology and Communications approved a new 'Digital Transformation of Bulgaria for 2020-2030', covering the potential of digital transformation for growth, work, healthcare, energy policy, social participation, and government transparency¹⁴⁶.

Moreover, Bulgaria has established a National Centre for Supercomputing Applications. The country has also endorsed the Declaration on Cooperation on Artificial Intelligence. The government has initiated various reforms to improve and stimulate its innovation system. For instance, implementation of the Operational Programme "Science and Education for Smart Growth 2014-2020" and the strategy "Better Science for a Better Bulgaria 2025" 147.

According to EIB Group survey on investment and investment finance 2020 for Bulgaria, 55.0% firms have implemented, either fully or partially, at least one of the digital technologies in 2020, below the EU-27 average (63.0%). As per the report, around 17.0% of the construction firms adopted Internet of Things in 2020. Similarly, drones and 3-D Printing were adopted by 12.0% and 8.0% respectively by the Bulgarian construction firms in 2020. Contrarily, only 2.0% of construction firms adopted Augmented or virtual reality¹⁴⁸.

Bulgaria has also introduced the 'Digital Transformation of Bulgarian Industry — Industry 4.0' strategy to foster and accelerate the digitalisation process of the Bulgarian industries. For instance, coBuilder and Nemetschek have started educating the Bulgarian construction industry about the advantages of using **Building Information Modelling (BIM)** by organising various events¹⁴⁹.

In terms of BIM adoption, Bulgaria is still lagging most of the European countries. There is a need to create more public interest towards all matters of BIM in Bulgaria¹⁵⁰. To address this issue, the government announced a strategy targeting and supporting BIM implementation. It announced a pilot phase support for the introduction of construction information modelling (CIM / BIM) in investment design and construction as basis for digital reform of the construction sector in Bulgaria¹⁵¹.

With regards to the digitalisation reform of the construction sector, Bulgaria, in the RRP, announced plans to support a pilot phase for the introduction of Construction Information Modelling (CIM/BIM) in investment design and construction. The total planned resource is BGN 7.9 million (EUR 4.0 million) with an implementation period starting form 2021 and running to2026¹⁵².

The project would enhance the capacity of the CIM community in Bulgaria to provide knowledge and experience related to the implementation of CIM and would build a national digital platform for construction. The activities that have been planned include specialised trainings, technical support for experts from the municipal, regional and state administration, and the provision of logistical support to SMEs for the implementation of CIM¹⁵³.

National and regional regulatory

framework

Policy schemes

In order to address the widespread problem of homelessness in Bulgaria, the **National Housing Strategy for 2018-2030** was drafted by the Ministry of Regional Development and Public Administration in 2018. It builds on all relevant existing strategies, i.e. National Regional Development Strategy 2012—2022; the updated National Strategy for Population Demographic Development in the Republic of Bulgaria for the period 2012 — 2030; and the National Program for Improvement the housing conditions of Roma in Bulgaria 2005 — 2015 (more details below).

The Housing Strategy objectives are threefold: first, it aims to establish a working mechanism for adequate management and maintenance of the housing stock (tackling the issue of renovation and low energy efficiency). Second, it aims to provide affordable housing, including a direct support to vulnerable groups (hence addressing the issue of social housing deficit). The third specific objective is "Building a National Housing Framework", which consist of a separate fund combining financial resources from all sources (State budget, operational programmes, donors, capital markets etc.), and will allocate them towards the objectives 1 and 2 of this strategy¹⁵⁴.

Under the operational programme 'Regions in Growth' 2014-2020, the government introduced the policy measure 'Improving housing conditions for vulnerable groups and regional health infrastructure', started in 2015 and ending in 2023. It entails the construction, reconstruction, repair and expansion of social housing, as well as the construction, and renovation of health infrastructure¹⁵⁵. While local governments are required to provide social housing for those in need,

they do not benefit from further financing. In the few municipalities where new social housing is being constructed with funding from the EU operational program, the target group was not necessarily low-income households as initially intended¹⁵⁶.

Bulgaria also gets EU funding for renovation and construction of housing. As of March 2019, contracts were signed in 9 municipalities for the construction of social housing and one shelter under the operational programme (OP) 'Regions in growth 2014-2020', priority axis 1 'Sustainable and integrated urban development'¹⁵⁷.

The EU will invest around BGN 3.0 million (EUR 1.5 million) in the municipality of Stara Zagora for the construction of 69 modern social housing units including 8 studios, 19 one-bedroom and 42 two-bedroom apartments¹⁵⁸.

These units are projected to accommodate a total of 232 vulnerable people and other disadvantaged groups, half of which will be for vulnerable people of marginalised communities, including Roma¹⁵⁹.

Moreover, in the beginning of 2021, a new type of tax relief was introduced in the Personal Income Tax Act for persons using services for repair activities. This tax relief is aimed at the individuals who have made improvements and / or repairs in their own homes during the year. Upon meeting the conditions specified in the law, these individuals will be able to reduce the total amount of their annual tax base with the actual labour costs paid by them to the natural or legal persons who have performed the repairs or improvements, in a total amount of up to BGN 2,000.0 (EUR 1,040.0)¹⁶⁰.

In its RRP, Bulgaria has allocated around EUR 1.4 billion towards energy efficiency measures. The bulk of these funds is represented by a EUR 947.0 million allocation from the RRF¹⁶¹.

The largest share of energy efficiency measures would focus on the renovation of multifamily residential buildings (around EUR 627.0 million), followed by state and municipal buildings (around EUR 185.0 million), and industrial and commercial buildings (around EUR 118.0 million). Also, energy efficiency audits will be used to validate realised savings in the non-domestic (public and commercial) sectors¹⁶².

Additionally, it includes a dedicated programme financing energy efficiency measures for standalone houses such as the purchase of energy efficient heat pumps, solar systems for household heat supply and photovoltaic (PV) systems in buildings that are not connected to heat and gas transmission networks. The measures would also allocate funds to already existing programmes for buildings renovations¹⁶³.

Building regulations

The Spatial Planning Act (SPA) is the main legislative element in Bulgarian construction law. Among others it explains spatial planning rules, project design and authorisation procedures, quality control and supervision of the works, the requirements to be met by the works and notifications that need to be provided to the relevant authorities throughout the building process¹⁶⁴. The National Construction Supervision Directorate (NCSD) within the Ministry of Regional Development ensures compliance with the Act and controls the design and construction, including the use of high-quality building materials¹⁶⁵.

As per the Act, it is required that that the **construction contract** is concluded in writing, since it is the basis of the relationship between the parties involved in the construction process. The contract is set out in Articles 258-269 of the Bulgarian Obligations and Contracts Art¹⁶⁶. Finally, the **Bulgarian Chamber of Builders Act** from 2006 provides the regulations requirements for individuals and legal entities that have the right to perform construction works¹⁶⁷.

Specifically, national and international firms need to be registered in the **Central Professional Register of Builders (CPRB)** in order to carry out construction works¹⁶⁸.

According to the Bulgarian Construction Chamber, the country requires a whole new legal framework. There are proposed new legislative initiatives, which would replace the existing SPA and would consequently lead to the simplification of the regulatory environment. Further reforms have been initiated to reduce the sector losses from the operation of grey economy, estimated at BGN 1.5 billion (EUR 0.8 billion)¹⁶⁹. Some amendments have been made to the Spatial Planning Act – SPA and Bulgarian Chamber of Builders Act limiting the scope of unlisted builders in the Central Professional Register of Builders (CPRB) up to the construction of residential and villa buildings with low built-up area (not more than 100 sq. m.).

Another regulation, **Spatial Development Act (SDA)** regulates the social relations associated with spatial development, development-project designing and construction in Bulgaria and determines the restrictions on ownership for spatial-development purposes¹⁷⁰. In February 2021, some key amendments to the Act were promulgated in the State Gazette 16/23.02.2021. A simplified procedure has been introduced with regards to the change of the assigned use of buildings or of individual sites in the building where construction and installation works are carried out¹⁷¹.

The new amendments in the Spatial Development Act would allow for change of the assigned use of buildings or of individual sites in the building without preparing investment projects and issuing a construction permit¹⁷².

Insurance and liability related regulations

In Bulgaria, professional liability insurance is mandatory for designing and construction related activities, as stipulated in Article 171 of the Spatial Planning Act **of 2001** and must be taken out by all parties involved in the construction process (investors, designers, contractors, construction supervisors, consultants and suppliers of equipment)¹⁷³.

The compulsory insurance covers claim for property damage and for personal injuries. The insurance is valid for a period of one year and requires to be renewed throughout the duration of the activity. However, voluntary insurance, such as 'Insurance of construction and assembly works' can also be issued, as specified in Article 173 of the Act, with insurance periods which can exceed one year¹⁷⁴.

The duration of liability pertaining to the execution of works and repair of defects is defined in **Ordinance N° 2 of 31.07.2003** of the Minister of Regional Development and Public Administration. This depends on the type of the construction and assembly project undertaken, ranging from 5 years for construction activities such as internal installations, insulation and waterproofing, etc. to almost 10 years or more for structural construction works¹⁷⁵.

Current status and national strategies to meet Construction 2020 objectives

TO 1 – Investment conditions and volumes

Total **investment by the broad construction sector**¹⁷⁶ has been fluctuating over the past years, especially since 2013 (Figure 10). Namely, investment in the narrow construction sub-sector¹⁷⁷ increased by 16.5% from 2010 to 2019¹⁷⁸, from EUR 1,219.3 million to EUR 1,420.1 million. Conversely, investments in the real estate activities sub-sector declined by 13.1%, from EUR 535.1 million in 2010 to EUR 465.2 million in 2019¹⁷⁹.

Investment in the narrow construction sub-sector between 2010 and 2019



Figure 10: Investment by the Bulgarian broad construction sector between 2010 and 2019 (EUR m)



Source: Eurostat, 2021.

The investment index in the broad construction sector¹⁸⁰ has registered a decline of 16.6% between 2015 and 2020 (Figure 11).

Investment in dwellings by the whole economy increased significantly by 135.1% over the period 2015-2020. In contrast, investments in the non-residential and civil engineering sub-sectors decreased by 40.5% during the same period. In

2019¹⁸¹, investment in the broad construction sector reached to EUR 4.8 billion, out of which EUR 1.7 billion were invested in dwellings and EUR 3.1 billion - in non-residential construction and civil engineering¹⁸².

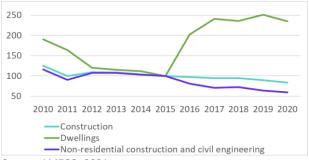
Total investment in nonresidential and civil engineering sub-sectors between 2015 and 2020



Total investment in dwellings by the whole economy between 2015 and 2020



Figure 11: Investment index in the Bulgarian broad construction sector between 2010 and 2020 (2015=100)



Source: AMECO, 2021.

The share of total **inland infrastructure investment**¹⁸³ in the GDP has reduced from 1.3% in 2010 to 1.1% in 2019¹⁸⁴. Investment in sea infrastructure experienced a significant growth of 2070.0% between 2010 and 2019¹⁸⁵, followed by the road and rail infrastructures which increased by 42.5% and 33.9% respectively during the same period. Conversely, investment in air transport

infrastructure declined by 37.5% over the 2010-2019¹⁸⁶ period.

Sea infrastructure investment between 2010 and 2019



Road infrastructure investment between 2010 and 2019



In terms of infrastructure maintenance, overall expenditure on inland waterways and road infrastructure maintenance increased by 250.0% and 93.5% between 2010 and 2019, respectively.

In contrast, maintenance investment in air, sea and rail infrastructure declined by 66.7%, 50.0% and 5.7% between 2010 and 2019, respectively.

In terms of improving the railway infrastructure along the "main" Trans-European Transport Network (TEN-T) and develop the connectivity with the neighbouring countries, the **Transport Connectivity programme** 2021-2027 has planned to complete the modernisation of the Elin Pelin – Kostenets railway section and modernise the Sofia – Pernik – Radomir railway section. It will also construct a railway connection between Bulgaria and the Republic of Northern Macedonia¹⁸⁷.

As part of the Transport Connectivity programme 2021-2027, Bulgaria has planned to invest around BGN 6.5 billion (EUR 3.3 billion) in the construction of railway infrastructure on its territory jointly with the European Union (EU)¹⁸⁸.

The majority of the investments in rail, road and air infrastructure are supported by EU funds. In 2020, the EIB Group provided loans, guarantees and equity commitments worth EUR 443.0 million for projects in Bulgaria, an increase 23.0% compared to 2019¹⁸⁹.



Between 2016 and 2020, the EIB group invested almost EUR 123.0 million in infrastructure related projects in Bulgaria¹⁹⁰.

In July 2021, the EIB signed a EUR 40.0 million loan agreement for the modernisation of Bulgaria's Sofia International Airport with airport concessionaire

SOF Connect. The financing is supported by the European Commission's Connecting Europe Facility (CEF)¹⁹¹. Previously, in July 2020, Bulgaria's government signed a contract for a 35-year concession for the development, upgrade, maintenance, management and operation of Sofia Airport with SOF Connect, a consortium led by French investment firm Meridiam¹⁹². National Railway Infrastructure Company (NRIC), the stateowned company, plans to seek financing for the development of the railway hubs of Ruse, Varna and Gorna Oryahovitsa, and to finance the construction of the railway between the coastal city of Burgas and Plovdiv, the second largest city of Bulgaria, to connect their respective airports. Moreover, the company also plans to seek more support under the EU Connect Europe Facility to build more railway projects, such as the railway project that connects Dragoman in Sofia and the Serbian border¹⁹³.

In the Bulgaria's Convergence Programme (2021-2023), an increase of the subsidy by BGN 50.0 million (EUR 26.0 million), 0.04% of the projected GDP, has been proposed for current maintenance and operation of the railway infrastructure for 2021¹⁹⁴.

Household renovation spending has seen an increasing trend since 2010. It grew from EUR 226.2 million in 2010 to EUR 401.4 million in 2019¹⁹⁵, representing a rise of 77.5% over the same period. Moreover, renovation spending accounted for 1.2% of household disposable income in 2017¹⁹⁶, slightly above its 2010 level and well above the EU-27 average of 0.9%.

Household renovation spending between 2010 and 2019



In the RRP, Bulgaria has planned to invest around BGN 1,309.2 million (EUR 667.7 million) towards the digitalisation in railway transport through modernisation of safety and energy efficiency systems on railway lines of the main and wide ranging TEN-T network¹⁹⁷.

This measure is aimed at improving the quality of railway transport services by controlling the operating parameters and increasing the security, reliability and safety of transport operations. As part of the plan, the country would also reconstruct and

rehabilitate key station complexes and construct an intermodal terminal- *Gorna Oryahovitsa*¹⁹⁸.

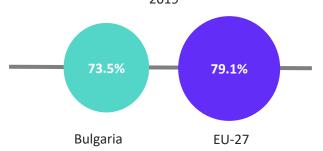
TO 2 – Skills

Bulgaria has one of the lowest public spending on education among the EU Member States, accounting for 3.9% of GDP (below the EU-27 average of 4.7%)¹⁹⁹.

Bulgaria continues to face challenges regarding improving digital skills, reducing school dropouts, increasing staff salaries and strengthening inclusive learning.

In Bulgaria, enrolment in vocational education and training (VET) system increased to 52.9% in 2018²⁰⁰, above the EU-27 average of 48.4%. Moreover, the employment rate of recent VET graduates increased significantly in 2019 to 73.5% from 66.4% in the previous year, even though it remained below the EU-27 average of 79.1%. The government is taking several steps to reform VET, sometimes with the financial support of the EU. In December 2019, the National Agency for Vocational Education and Training submitted an analysis including specific proposals for the future development of the list of professions for Vocational Education and Training (LPVET) to the Ministry of Education and Science. The country updated the VET strategy for 2019-2020 by including dual VET. In this regard, the project 'Support for the dual training system', cofunded by the ESF, was launched under the coordination of the Ministry²⁰¹.

Employment rate of recent VET graduates in 2019



According to the Forecast report of the Ministry of Labour and Social affairs, construction is one of the top five sectors which will require upper secondary (general and vocational) education in the next 10 years (2018-2028). The objective will be the creation of 137,014 jobs in the sector²⁰².

Still, there are several challenges regarding VET that need to be addressed including its underfinancing, poor cooperation with the business sector, increasing drop-out rates, outdate curriculum, shortage of qualified teachers and lack of a coherent system to assess the VET system²⁰³.

In a context where 17.5% of the working age population (between ages 25-64) is low skilled, upskilling and reskilling the population remains a significant challenge (and objective) in the context of the economic recovery from COVID-19. The **National Developmental Programme 2030**, approved in January 2020, sets a participation target of 7.0% in education and training by 2030²⁰⁴.

According to the recent Labour Force Survey, only 2.0% of adults aged between 25-64 years in Bulgaria had a learning experience during the preceding four weeks²⁰⁵.

FCIW PODKREPA, the construction sector trade union of Bulgaria, developed a training programme for the unemployed, delivered through its Vocational Training Centres. The programme has been running for two years. Moreover, in the 'Training in Park Construction and Landscaping' course, 750 people have taken part over the last two years (2017-2019), of whom 60% were women and 15% under 35 years old²⁰⁶.

Bulgaria continues to have one of the lowest digital skills levels among the young population in the EU. Only 57.0% of the population aged between 16-19 years have their digital skills level assessed as or above basic compared to the EU-27 average of 82.0%. Moreover, the country ranks at the bottom of European rankings based on the level of digital skills of adults and young people, and ICT specialists in the 2020 Digital Economy and Society Index. Nonetheless, recent years have witnessed an increasing focus on improving digital skills and digital education²⁰⁷.

CraftEdu project, part of Horizon 2020 programme, is dedicated to developing e-learning programme for targeted craftsmen and construction professionals in Bulgaria²⁰⁸.

The project was started in June 2018 and will end in November 2021.

As part of its RRP, Bulgaria has allocated around EUR 800 million for a program on "Education and skills" 209.

With this investment, the country's aim is to improve e-learning, support the implementation of digital technologies and improve the education infrastructure to digitalise it.

TO 3 – Resource efficiency / Sustainable construction

In early 2020, Bulgaria adopted an Integrated Energy and Climate Plan (INECP) 2021-2030. The document sets out national general and specific targets till 2030 in the areas of decarbonisation, energy efficiency, energy security, the internal energy market, research, innovation and competitiveness²¹⁰.

The national decarbonisation targets mentioned in the INPEC include:

- Reaching a share of renewable energy in gross final energy consumption of energy of 27.1%;
- Achieving a 27.9% reduction in primary energy consumption and a 31.7% reduction in final energy consumption by 2030 compared to the reference scenario PRIMES 2007;
- A 0% increase in GHG emissions by 2030 compared to 2005 for sectors outside EU FTS

In absolute terms, Bulgaria's target is to achieve 17,466 ktoe for primary energy consumption and 10,318 ktoe for final energy consumption by 2030. In order to achieve this target, the country is planning to create a strategic link to building stock renovation and prioritise energy efficiency in combination with the use of renewable energy sources in buildings²¹¹.

In Bulgaria, the building sector (residential and non-residential) currently accounts for about 23.0% of the final energy consumption²¹².

One of the main challenges related to the residential building stock in the country is the poor state of the prefabricated multi-family buildings dating from the communist era. It is expected that these buildings have an energy consumption at least twice as high as buildings built to current standards. The Bulgarian government has taken several initiatives with regards to energy efficiency²¹³.

The "National Programme for Energy Efficiency of Multi-Family Residential Buildings (NPEEMB)", launched in 2015 by the Bulgarian government, provides up to 100% of grant funding to eligible projects. The programme has been implemented with a budget of BGN 2.0 billion (EUR 1.04 billion), partially in the form of State-guaranteed loans from the Bulgarian Development Bank (BBR). In 2016, the programme was expanded to include other residential buildings as well. Nonetheless, its extension is contingent on additional funds becoming available^{214,215}.

By December 2020, around 1,921 buildings were put into operation with a total deployment built-up area 10 855 018 m2, as part of the NPEEMB²¹⁶.

In May 2021, Bulgaria's Ministry of Energy announced a call for project proposals under the Energy efficiency in buildings programme, funded by the financial mechanism of the European Economic Area 2014-2021 through the program Renewable energy, energy efficiency and energy security²¹⁷.

By 2030, Bulgaria is expected to receive about 6.0% of the Modernisation Fund (almost EUR 400.0 million, depending on the carbon price), aimed at supporting energy efficiency and modernisation of energy systems in lower income Member States. The New Green Deal for Europe, backed by the Just Transition Fund, could also speed up the carbon footprint improvement in the region. All these initiatives can help in channelling support for sustainability and decarbonisation²¹⁸.

Bulgaria is currently developing a long-term strategy for support of the renovation of the national residential and non-residential building stock until 2050²¹⁹.

The strategy will include measures for the construction of new buildings and the conversion of existing buildings into nearly zero-energy buildings. It will also focus on the improvement of the energy

characteristics of residential and non-residential buildings and promotion of the introduction of smart technologies in buildings²²⁰.

TO 4 – Single Market

Bulgaria's performance was average with respect to the metrics of the 2020 EU Single Market Scoreboard²²¹.

As per the report, Bulgaria continued its progress on lowering its transposition deficit (a reduction of 1.1 pps, from 1.7% to 0.6 % within three years). In terms of average delay, Bulgaria is ranked as the best-performing Member State.

Only one directive was overdue by more than two years and most of its outstanding directives (5/6) have been due for less than six months. In terms of infringements, point of single contact and public procurement, Bulgaria's performance was average. The country's trade integration in the single market for goods as well as services is above the EU-28²²² average²²³.

To strengthen the prevention and support public contracting authorities, the government, in the National Recovery and Sustainability Plan 2021, announced to bring in changes in the methodology for selecting procedures to be tested on random principle in the framework of the preliminary control by the Public Agency procurement. It also announced to increase the share of audited public contracts financed from the EU (including under the Mechanism for Recovery and Sustainability). In addition, new electronic forms in the national electronic system Public procurement will be introduced²²⁴.

Bulgaria's regulatory framework for construction services is one of most restrictive frameworks in the EU region.

In Bulgaria, the major legislative acts concerning the construction process are the Territorial Development Act (TDA), the Chamber of Constructors Act, the Chambers of Architects and Engineers in the Project Design Act, the Development of Black Sea Cost Act and the various Ordinances²²⁵.

Insufficient resources and sub-optimal cooperation between different market surveillance authorities makes it difficult to maintain surveillance of the single market required to ensure a level playing field for businesses²²⁶. There are still some underlying challenges in need to be addressed. Complex authorisation and reporting requirements were introduced by a new law on Private Security Activities. It also entails stringent requirements for temporary cross-border service providers. Similarly, several authorisation schemes were introduced for the construction services²²⁷ making the process more cumbersome and restrictive.

TO 5 – International competitiveness



According to the World Bank Doing Business 2020 report, Bulgaria ranked 21st out of 190 countries in ease of trading across borders in 2019²²⁸.

As per the report, in Bulgaria it takes two hours and EUR 27.0 for documentary compliance and four hours and EUR 28.6 for Border compliance²²⁹.

In terms of the **internationalisation of construction products**, the export value of all construction-related projects in Bulgaria stood at EUR 470.7 million in 2019, exhibiting an increase of 94.2% compared to the 2010 level of EUR 242.4 million. Bulgaria's share of exports of all construction-related products in 2019 stood at 35.5% of the total production value. This is well above the EU-27 average of 11.3% for the same period.

Exports value of all construction-related products between 2010 and 2019

1 94.2%

In the context of **inward FATS** (**Foreign affiliates statistics**)²³⁰, value added at factor cost in the narrow construction sub-sector slightly decreased by 0.2% between 2010 and 2018²³¹. Similarly, turnover in the narrow construction sub-sector dropped by 57.1% during the 2010-2018 period respectively. Conversely, turnover in the manufacturing sub-sector²³² outside EU-28, in terms of **outward FATS**²³³ considerably grew by 489.2% between 2014²³⁴ and 2018²³⁵.

The Bulgarian SME Promotion Agency (BSMEPA), a government institution aiming to provide information and consulting services to SMEs, developed measures to support their competitiveness and internationalisation²³⁶.

For instance, under the project "Organisation of trade missions and forums for Bulgarian producers and foreign buyers" the BSMEPA facilitates the access of Bulgarian SMEs to target foreign markets and provides conditions for their good positioning and sustainable presence on an international scale²³⁷. BSMEPA cooperates with the Bulgarian Construction Chamber (BCC) in the organisation of construction trade missions, e.g. to Morocco.

Through the "Participation of SMEs in international fairs, exhibitions and conferences in the country and abroad" project, BSMEPA supports the export activities of Bulgarian SMEs, provides an opportunity to establish direct contacts with foreign partners at the organised presence of fairs, exhibitions and conferences²³⁸.

The main fairs and exhibitions in Bulgaria, targeting SMEs are in the sectors of industrial technology and equipment, dental and medical equipment, furniture and furnishings, printing and publishing, construction and construction materials and others²³⁹.

In addition, the BSMEPA also operates the on-line National Export Portal, which helps entrepreneurs in acquiring necessary skills to carry out foreign trade activities by gathering export-related information, publishing tender opportunities, information about foreign markets, and export strategies for various sectors (e.g. manufacturers of wood, wood products and of metal products, relevant to the construction sector)²⁴⁰. Despite the continuous support from BSMEPA, Bulgarian SMEs face difficulties in meeting foreign market requirements and in safeguarding their intellectual property rights from infringements.

Outlook

After decelerating by 4.2% in 2020, the Bulgarian economy is expected to grow by 3.5% in 2021, mainly driven by private consumption and investments²⁴¹.

In addition, the country's economy is forecasted to further grow by 4.7% in 2022, reaching its pre-crisis level (2019 level, before COVID-19) of real output, totalling BGN 106.6 billion (EUR 54.4 billion) in 2022.

Expected GDP growth between 2021-2023



Similarly, the **volume index of production** of the broad construction sub-sector is expected to annually rise by 4.7 ip in 2021. This is primarily driven by the growth in the construction of buildings and civil engineering sub-sectors by 6.0 ip and 4.0 ip in 2021, respectively. In 2022, the volume index of production of the broad construction sector is expected to further rise annually by 7.3 ip in 2022, driven by the rise in construction of civil engineering (+8.0 ip) and construction of buildings (+6.0 ip) sub-sectors. This further indicates that the growth in the sector will accelerate in 2022.

Following the similar trend, the **total value added of the broad construction sector** to the economy is expected to rise by 4.8% in 2021. Correspondingly, the **turnover** of the broad construction sector is projected to grow annually by 4.0% in 2021, reaching EUR 14.9 billion.

Following the positive changes in the macroeconomic context, the **number of persons employed** in the broad construction sector is also expected to increase by 4.4% to 306,191 in 2021.

In the context of the **housing market**, positive economic outlook of the country, coupled with low interest rates on home loans, is expected to boost housing demand. The latter will be also fuelled by increased savings and zero deposit rates, which may in turn raise speculative investments in housing resulting in an increase of home prices²⁴².

Under the RRF, part of NextGenerationEU, Bulgaria has been allocated a total grant of EUR 6.5 billion²⁴³.

Out of this, around EUR 947.0 million will be invested in energy efficiency measures²⁴⁴. Furthermore, around BGN 1,309.2 million (EUR 667.7 million) has been allocated towards the digitalisation in railway transport through modernisation of safety and energy efficiency systems on railway lines of the main and wide ranging TEN-T network²⁴⁵.

The **civil engineering** sector is expected to be driven by the government's focus on the development of road, port and railway infrastructure with the EU's support. Bulgaria's planned investment of BGN 6.5 billion (EUR 3.3 billion) in the construction of railway infrastructure on its territory jointly with the European Union is expected to driver growth in the broad construction sector in the upcoming few years.

Bulgaria's broad construction sector is projected to recover in 2021 and 20211, driven by large infrastructure projects. Output in civil engineering will be driven by investment in road and public utility constructions, particularly those regarding the maintenance and operation of the railway infrastructure, backed by EU funding²⁴⁶.

References

Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details. 2 No data available for sequent years. No data available for sequent years. Bulgaria's real estate market stable in 2020 despite coronavirus crisis - Raiffeisenbank, march 2021. https://seenews.com/news/bulgariasreal-estate-market-stable-in-2020-despite-coronavirus-crisis-raiffeisenbank-736124 5 **Bulgarian National Statistics Institute** https://nsi.bg/sites/default/files/files/data/timeseries/HPI_2.4_en.xls 6 Renovate Europe- Renovate2Recover: How transformational are the National Recovery Plans for Buildings Renovation?- Bulgaria. https://www.renovate-europe.eu/wp-content/uploads/2018/09/Renovate2Recover-BULGARIA.pdf See News- Bulgaria to invest 3.3 bln euro in railway infrastructure with EU help by 2027 - report, July 2020. https://seenews.com/news/bulgaria-to-invest-33-bln-euro-in-railway-infrastructure-with-eu-help-by-2027-report-705737 8 European Commission, Convergence Programme of Bulgaria (2021-2023). https://ec.europa.eu/info/sites/default/files/2021-bulgariaconvergence-programme_en.pdf 9 European Commission, Recovery and resilience plan for Bulgaria. https://nextgeneration.bg/14 10 Reuters, Bulgaria's interim government offers to revamp budget and raise pensions, July 2021. https://www.reuters.com/article/usbulgaria-budget-idUSKBN2ES1JB 11 CMS Expert Guide to COVID-19 impact on construction - Bulgaria. $\underline{https://cms.law/en/int/expert-guides/cms-expert-guide-to-covid-19-impact-on-construction-industry/bulgaria}$ 12 Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details. 13 Please note that the share of each sub-sector in the value added of the broad construction sector should not be compared to the shares of the Gross Value Added in the GDP, since the GDP also includes taxes and excludes subsidies. 14 Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details. 15 No data available for subsequent years. 16 Apparent labour productivity refers to the gross value added per person employed. 17 No data available for subsequent years for the productivity in the broad construction sector. 18 Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details. 19 Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details. 20 2020 European Semester Country Report - Bulgaria. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0501&from=EN 21 Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details. 22 No data available for sequent years. 23 The gross operating rate is the ratio of Gross Operating Surplus to Turnover, and is an indicator of profitability. 24 No data available for sequent years. 25 No data available for subsequent years. 26 2020 European Semester Country Report – Bulgaria. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0501&from=EN European Commission- European Economic Forecast- Winter 2021 (Interim), February 2021. 27 https://ec.europa.eu/info/sites/default/files/economy-finance/ip144 en 1.pdf 28 2019 European Semester Country Report - Bulgaria. https://ec.europa.eu/info/sites/info/files/2019-european-semester-country-report-bulgaria en.pdf 29 Knoema, Bulgaria - Average consumer prices inflation rate, https://knoema.com/atlas/Bulgaria/Inflation-rate 30 OECD Economic Surveys, Economic Assessment Bulgaria, January 2021. https://www.oecd.org/economy/surveys/bulgaria-2021-OECDeconomic-survey-overview.pdf 31 Reuters, Bulgaria sticks to plans to adopt the euro from Jan 1, 2024, June 2021. https://www.reuters.com/article/bulgaria-eurozoneidUSL2N2OC1PM 32 Eurostat, Unemployment by sex and age - annual average. http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=une_rt_a&lang=en_ 33 Balkan Insight, Bulgaria in 2021: Testing Times for Govt, People and Environment. January 2021. https://balkaninsight.com/2021/01/07/bulgaria-in-2021-testing-times-for-govt-people-and-environment/ 34 Data for subsequent years not available. 35 2020 European Semester Country Report - Bulgaria. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0501&from=EN 36 International Monetary Fund (2021). 2020 article iv consultation—press release; staff report; and statement by the Executive Director for Bulgaria, February 2021. https://www.imf.org/-/media/Files/Publications/CR/2021/English/1BGREA2021001.ashx 37 Reuters, Bulgaria's interim government offers to revamp budget and raise pensions, July 2021. https://www.reuters.com/article/usbulgaria-budget-idUSKBN2ES1JB 38

Bulgarian National Bank, June 2021. https://www.bnb.bg/PressOffice/POPressReleases/POPRDate/PR 20210630 BIR EN

World Bank Group, Doing Business 2020, Economy Profile for Bulgaria.

https://www.doingbusiness.org/content/dam/doingBusiness/country/b/bulgaria/BGR.pdf

39

40

Ibidem.

41 Global Entrepreneurship Monitor (2019), Global Entrepreneurship Report. http://www.gemconsortium.org/data/key-aps Global Entrepreneurship Monitor report for 2020 is not available yet. The latest data available is for 2018 in the 2019 report. 42 43 European Commission, 2021 SME Country Fact Sheet's Background Document for Bulgaria, https://ec.europa.eu/growth/sites/default/files/background documents of the sme fact sheets 2021.zip 44 45 World Bank Group, Doing Business 2020, Economy Profile for Bulgaria, https://www.doingbusiness.org/content/dam/doingBusiness/country/b/bulgaria/BGR.pdf World Bank Group, Doing Business 2019, Economy Profile for Bulgaria, https://www.doingbusiness.org/en/reports/global-reports/doingbusiness-2019 47 European Commission, SAFE Report- Results by country 2020. https://ec.europa.eu/docsroom/documents/43871 48 COVID-19 Unified Information Portal (2020), Economic Measures. https://coronavirus.bg/bg/merki/ikonomicheski 49 European Commission, 2021 SME Country Fact Sheet's Background Document for Bulgaria, https://ec.europa.eu/growth/sites/default/files/background documents of the sme fact sheets 2021.zip 50 No data available for 2010. 51 No data available for subsequent years. 52 See News: Bulgaria's business climate improves in March - stats office, March 2021. https://seenews.com/news/bulgarias-businessclimate-improves-in-march-stats-office-736345 53 Ibidem. 54 No data available for subsequent years. 55 No data available for subsequent years. 56 Data not available for previous years. 57 No data available for subsequent years. 58 According to Eurostat, construction services comprises Construction Abroad (code 250) and Construction in the Compiling Economy (code 251). They do not include architectural services, or engineering services 59 European Commission, SAFE Report- Results by country 2020. https://ec.europa.eu/docsroom/documents/43871 60 Ibidem. 61 SAFE Infographic report 2020, https://ec.europa.eu/docsroom/documents/43869 62 EIB Investment Survey, 2020. Bulgaria. https://www.eib.org/attachments/efs/eibis 2020 bulgaria en.pdf 63 64 SeeNews, Bulgaria launches 19.4 mln euro fund to support startups, September 2020. https://seenews.com/news/bulgaria-launches-194mln-euro-fund-to-support-startups-714644 65 EIF, EIF and Bulgaria support SMEs and mid-caps with up to €800 million, January 2021. https://www.eif.org/what_we_do/guarantees/news/2021/eif-and-bulgaria-support-smes-midcaps-with-up-to-800-million.htm 66 Ibidem. 67 No data available for subsequent years. Bulgarian National Statistics Institute. https://nsi.bg/sites/default/files/files/data/timeseries/HPI_2.4_en.xls 69 No data available for sequent years. 70 National statistical institute of the Republic of Bulgaria. Housing Fund - Short term statistics of newly built residential buildings. https://www.nsi.bg/en/content/5782/newly-built-dwellings-completed 71 National statistical institute of the Republic of Bulgaria, Building permits issued for construction of new buildings. http://www.nsi.bg/en/content/4495/building-permits-issued-construction-new-buildings 72 Bulgarian Construction- Property demand pushing up Bulgarian residential construction, May 2021. https://buildecon.blog/category/bulgarian-construction/ 73 See News, Bulgaria's real estate market stable in 2020 despite coronavirus crisis - Raiffeisenbank- May 2021. https://seenews.com/news/bulgarias-real-estate-market-stable-in-2020-despite-coronavirus-crisis-raiffeisenbank-736124 74 Ibidem. 75 The housing cost overburden rate is the percentage of the population living in households where the total housing costs represent more than 40 % of disposable income. 76 Eurostat, Housing cost overburden rate by age, sex and poverty status - EU-SILC survey. https://ec.europa.eu/eurostat/databrowser/view/tespm140/default/table?lang=en 77 The overcrowding rate is defined as the percentage of the population living in an overcrowded household. 78 OECD Affordable Housing Database, May 2021. https://www.oecd.org/els/family/HC2-1-Living-space.pdf 79 Eurostat, Severe housing deprivation rate is defined as the percentage of population living in the dwelling which is considered as overcrowded, while also exhibiting at least one of the housing deprivation measures. Housing deprivation is a measure of poor amenities and is calculated by referring to those households with a leaking roof, no bath/shower and no indoor toilet, or a dwelling considered too 80 Severe housing deprivation rate by age, sex and poverty status - EU-SILC survey. https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_mdho06a&lang=en 81 World Economic Forum, The Global Competitiveness Report 2019.

http://www3.weforum.org/docs/WEF TheGlobalCompetitivenessReport2019.pdf

82 As the World Economic Forum Global Competitiveness Index – Special Edition 2020 did not provide updated data on infrastructure, this report relies on the data provided by the 2019 edition 83 See News- Bulgaria to invest 3.3 bln euro in railway infrastructure with EU help by 2027 - report, July 2021. https://seenews.com/news/bulgaria-to-invest-33-bln-euro-in-railway-infrastructure-with-eu-help-by-2027-report-705737 84 85 2020 European Semester Country Report - Bulgaria. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0501&from=EN 86 2020 European Semester Country Report - Bulgaria. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0501&from=EN 87 European Commission, Data and surveys - SAFE, Results by country, 2020. https://ec.europa.eu/docsroom/documents/43871 88 Ibidem. 89 Ibidem. 90 2020 Atradius Payment Practices Barometer - November 2020. https://group.atradius.com/publications/payment-practicesbarometer/bulgaria-2020-rise-in-late-payments-due-to-pandemic-clouds-2021-outlook.html 91 Ibidem. 92 CRIBIS D&B Payment Study 2020. https://www.dnb.co.uk/content/dam/english/business-trends/DNB Payment Study 2020.pdf 93 Artadius Payment Practices Barometer, November 2020. https://group.atradius.com/publications/payment-practices-barometer/bulgaria-2020-rise-in-late-payments-due-to-pandemic-clouds-2021-outlook.html 94 Ibidem. 95 Ibidem. 96 Intrum- European Payment Report 2021, June 2021. https://www.intrum.com/publications/european-payment-report/europeanpayment-report-2021/ 97 Ibidem. 98 Ibidem. 99 World Bank, Doing Business 2020, Bulgaria, https://www.doingbusiness.org/content/dam/doingBusiness/country/b/bulgaria/BGR.pdf 100 The warehouse in this example is defined as a structure for general storage activities, with two stories, above ground and with total constructed area of approx. 1,300 square meters. The ground, on which the warehouse is built is owned by the company that will use it and valued at 50 times income per capita. There are architectural and technical plans prepared for the warehouse, which are also taken into account and counted as procedures if their preparation requires obtaining further documentation or getting prior approvals from external agencies. Finally, in this example the warehouse takes 30 weeks to construct, excl. all delays due to administrative and regulatory requirements. 101 As the publication of the WB Doing Business report 2021 was not available at the time of the writing, this report relies on the data provided by the 2020 edition, 102 No data available for subsequent years. 103 NIEM, The National Strategy on Migration of the Republic of Bulgaria 2021-2025. http://www.forintegration.eu/pl/the-national-strategyon-migration-of-the-republic-of-bulgaria-2021-2021 104 Ibidem. 105 Mondaq, Bulgaria: New Minimum Wage Levels Announced For 2021, February 2021. https://www.mondaq.com/employee-rights-labourrelations/1032418/new-minimum-wage-levels-announced-for-2021 106 The Chamber of Builders in Bulgaria (BCB), National Competition in Professional Field "Construction" - "Best Young Constructor". https://ksb-bg.translate.goog/24821-2/ksb-v-podkrepa-na-profesionalnoto-obrazovanie/? x tr sl=auto& x tr tl=en& x tr hl=en-GB& x tr pto=ajax,elem,se 107 The Chamber of Builders in Bulgaria (BCB), BUS League: Stimulating the demand for energy efficient construction skills. https://ksbbg.translate.goog/bus-league/? x tr sl=auto& x tr tl=en& x tr hl=en-GB& x tr pto=ajax,elem&body only=true 108 Ibidem. Data unavailable for subsequent years. 110 Eurostat, Generation of waste by waste category, hazardousness and NACE Rev. 2 activity, https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do 111 SMART WASTE Interreg Europe, Construction & demolition waste generation in the EU, April 2021. https://www.interregeurope.eu/smartwaste/news/news-article/11804/construction-demolition-waste-generation-in-the-eu/ 112 Data unavailable for subsequent years. 113 Eurostat - Recycling rate of municipal waste. https://ec.europa.eu/eurostat/databrowser/view/sdg_11_60/default/table?lang=en 114 National Statistical Institute of Bulgaria, In March 2021 The National Statistical Institute started the work on the "Improving data for circular economy - packaging waste and construction waste" project, April 2021. https://www.nsi.bg/en/content/18988/march-2021national-statistical-institute-started-work-%E2%80%9Cimproving-data-circular 115 116 2020 European Semester Country Report - Bulgaria. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0501&from=EN

Eurostat - Recycling rate of municipal waste.

https://ec.europa.eu/eurostat/databrowser/view/sdg 11 60/default/table?lang=en

117

```
118
          Cohesion Policy: Commission invests in better waste management in Bulgaria, March 2020.
          https://ec.europa.eu/regional policy/en/newsroom/news/2020/03/20-03-2020-cohesion-policy-commission-invests-in-better-waste-
          management-in-bulgaria
119
          Data unavailable for subsequent years.
120
          Data unavailable for subsequent years.
121
          2020 European Semester Country Report - Bulgaria.
          https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0501&from=EN
122
          European Innovation Scoreboard 2021- Bulgaria. https://ec.europa.eu/docsroom/documents/45907
123
          Ibidem.
124
          No data available for prior years.
125
          No data available for subsequent years
126
          No data available for prior years.
127
          No data available for subsequent years
128
          No data available for subsequent years
129
          No data available for subsequent years
130
          A full-time equivalent (FTE) is a unit to measure employed persons in a way that makes them comparable, although they may work a
          different number of hours per week. The unit is obtained by comparing an employee's average number of hours worked to the average
          number of hours of a full-time worker. A full-time person is therefore counted as one FTE, while a part-time worker gets a score in
          proportion to the hours worked.
131
          No data available for prior years.
132
          No data available for subsequent years
133
          European Eco-Innovation Scoreboard. 2021. https://ec.europa.eu/environment/ecoap/indicators/index_en
134
135
          2020 European Semester Country Report - Bulgaria.
          https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0501&from=EN
136
          As EU-27 data is unavailable, considered EU-28 data for comparative purposes.
137
          Digital Economy and Society Index 2020 Bulgaria.
          https://ec.europa.eu/digital-single-market/en/news/digital-economy-and-society-index-desi-2020
138
          Digital Economy and Society Index 2020 Bulgaria.
          https://ec.europa.eu/digital-single-market/en/news/digital-economy-and-society-index-desi-2020
139
          As EU-27 data is unavailable, considered EU-28 data for comparative purposes.
140
          As EU-27 data is unavailable, considered EU-28 data for comparative purposes.
141
          Digital Economy and Society Index 2020 Bulgaria.
          https://ec.europa.eu/digital-single-market/en/news/digital-economy-and-society-index-desi-2020
142
          European Commission, Bulgaria - SME Fact Sheet 2021. https://ec.europa.eu/docsroom/documents/46068
143
          Digital Economy and Society Index 2020 Bulgaria.
          https://ec.europa.eu/digital-single-market/en/news/digital-economy-and-society-index-desi-2020
144
          European Commission- Digital Skills and Jobs Platform, Bulgaria - Digital Bulgaria 2025 National Programme, May 2021. https://digital-
          skills-jobs.europa.eu/en/actions/national-initiatives/national-strategies/bulgaria-digital-bulgaria-2025-national-programme
145
146
          Concept for the development of AI in Bulgaria until 2030.
          https://stip.oecd.org/stip/policy-initiatives/2019%2Fdata%2FpolicyInitiatives%2F26500
147
          Ministry of Education and Science, 2016. Better Science for a Better Bulgaria 2025. Vision for a research policy strategy in support of
          society and economy. https://era.gv.at/object/document/2763/attach/BG_Better_ScienceBetter-final_en.pdf
          EIB Group survey on investment and investment finance 2020 - Bulgaria.
          https://www.eib.org/attachments/efs/eibis_2020_bulgaria_en.pdf
149
          Digital Economy and Society Index 2020 Bulgaria.
          https://ec.europa.eu/digital-single-market/en/news/digital-economy-and-society-index-desi-2020
150
          Cobuilder, BIM in Bulgaria: an interview with Associate Professor Boyan Georgiev. https://cobuilder.com/en/bim-in-bulgaria-an-interview-
          with-associate-professor-boyan-georgiev/
151
          National Recovery and Sustainability Plan- Bulgaria, July 2021.
          https://nextgeneration.bg/upload/55/%D0%9D%D0%9F%D0%92%D0%A3 July2021.pdf
152
          European Commission, Recovery and resilience plan for Bulgaria. https://nextgeneration.bg/14
153
          Ibidem.
154
          European Social Charter, Cycle 2021. https://rm.coe.int/bg19-en-simplified-report-bulgaria-2021/1680a164b8
155
          European Commission, National Reform Programme – 2016 Update. April 2016.
          http://ec.europa.eu/europe2020/pdf/csr2016/nrp2016 bulgaria en.pdf
156
          World Bank (2017) Housing in Bulgaria, 2017.
          http://documents.worldbank.org/curated/en/702751508505445190/pdf/120562-WP-P161988-PUBLIC-
          HousinginBulgariaShortreportEN.pdf
157
          ESPN - National strategies to fight homelessness and housing exclusion – Bulgaria 2019.
          https://ec.europa.eu/social/main.jsp?pager.offset=5&advSearchKey=ESPN hhe2019&mode=advancedSubmit&catId=22&doc submit=&p
          olicyArea=0&policyAreaSub=0&country=0&year=0
```

158	Ibidem.
159	Ibidem.
160	European Commission, Convergence Programme of Bulgaria (2021-2023). https://ec.europa.eu/info/sites/default/files/2021-bulgaria-convergence-programme-en.pdf
161	Renovate Europe- Renovate2Recover: How transformational are the National Recovery Plans for Buildings Renovation?- Bulgar https://www.renovate-europe.eu/wp-content/uploads/2018/09/Renovate2Recover-BULGARIA.pdf
162	Ibidem.
163	Green Recovery Tracker- Bulgaria. https://www.greenrecoverytracker.org/country-reports/bulgaria
164	Ruskov and Colleagues, Construction law in Bulgaria. http://www.ruskov-law.eu/bulgaria/construction-law.html
165	Directorate for National Construction Supervision,
	$\underline{\text{http://www.dnsk.mrrb.government.bg/UI/Home.aspx?0ZKDwUgLUJoIGMALia%2bNv8hQnouB3tneSs637\%2btp76U\%3d}.$
166	Ruskov and Colleagues, The construction contract in Bulgaria. May 2013. http://www.ruskov-law.eu/bulgaria/article/the-construction-contract-in-bulgaria.html
167	Solicitor Bulgaria, Construction law. http://solicitorbulgaria.com/index.php/legislation/construction-law:40
168	Bulgarian Construction Chamber, 2014. http://ksb.bg/en/images/BCC-Organization-Profile-2015.pdf
169	Builders and municipalities are changing the law on construction and investment together – May 2019.
170	https://news.bg/economics/stroiteli-i-obshtini-promenyat-zaedno-zakona-za-stroitelstvo-i-investitsii.html
170	Solicitor Bulgaria. Bulgarian Spatial Development Act, part 1. http://web.solicitorbulgaria.com/index.php/bulgarian-spatial-development act-part-1
171	American Chamber of Commerce in Bulgaria (AMCHAM). Amendments to the Spatial Development Act, April 2021. https://amcham.bg/2021/04/06/amendments-to-the-spatial-development-act/
172	Ibidem.
173	ELIOS, Liability and insurance regimes in the construction sector: national schemes and guidelines to stimulate innovation and sustainability. April 2010. http://www.elios-ec.eu/sites/default/files/pdf/Eliosspecialreporton27MemberStates.pdf
174	Armeec, Professional indemnity insurance of participants in design and construction. http://www.armeec.bg/en/insurances/professionalindemnity-insurance-of-participants-in-design-and-construction
175	ELIOS, Liability and insurance regimes in the construction sector: national schemes and guidelines to stimulate innovation and sustainability. April 2010. http://www.elios-ec.eu/sites/default/files/pdf/Eliosspecialreporton27MemberStates.pdf
176	This includes total investment by the construction and real estate sub-sectors, defined as gross fixed capital formation, i.e. acquisitions minus disposal, of total fixed assets (e.g. machinery and equipment, vehicles, dwellings and other buildings).
177	Herein investment by the narrow construction sub-sector includes investment in machinery and intellectual property.
178	No data available for sequent years.
179	Data unavailable for Investment in intangible assets and intellectual property for both narrow construction and real estate activities su sectors.
180	This includes total investment (i.e. gross fixed capital formation) in dwellings and non-residential construction and civil engineering by investors in the general economy (e.g. industry, financial and non-financial services, households, agricultural sector, etc.).
181	No data available for sequent years.
182	The indicator gross fixed capital formation in non-residential and civil engineering refers to the Eurostat indicator « Other buildings and structures »
183	According to the OECD, inland infrastructure includes road, rail, inland waterways, maritime ports and airports and takes account of all sources of financing.
184	No data available for sequent years.
185	No data available for sequent years.
186	No data available for sequent years.
187	European Commission- National recovery and resilience plans: Bulgaria, October 2020. https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_en#national-recovery-and-resilience-plans
188	See News- Bulgaria to invest 3.3 bln euro in railway infrastructure with EU help by 2027 – report, July 2020. https://seenews.com/news/bulgaria-to-invest-33-bln-euro-in-railway-infrastructure-with-eu-help-by-2027-report-705737
189	European Investment Bank: Bulgaria, 2020. https://www.eib.org/attachments/country/factsheet_bulgaria_2020_en.pdf
190	Ibidem.
191	European Investment Bank, EIB Group provides €443 million to Bulgarian economy in 2020, February 2021. https://www.eib.org/en/press/all/2021-048-eib-group-provides-eur443-million-to-bulgarian-economy-in-2020
192	Ibidem.
193 194	Bulgaria invests about 6.5 billion lev to build railway infrastructure, July 2020. https://www.seetao.com/details/31164/en.html European Commission, Convergence Programme of Bulgaria (2021-2023). https://ec.europa.eu/info/sites/default/files/2021-bulgaria-
105	convergence-programme_en.pdf
195	No data available for sequent years.
196 197	No data available for sequent years.
197	European Commission, Recovery and resilience plan for Bulgaria. https://nextgeneration.bg/14
198	Ibidem.
200	Eurostat: General government expenditure by function (COFOG), https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do No data available for sequent years.

201	Education and Training Monitor 2020 Country reports. https://op.europa.eu/en/publication-detail/-/publication/cd97ef45-2497-11eb-9d7e-01aa75ed71a1/language-en
202	Catro Bulgaria 2018. Bulgarian Labout Market needs as key to refugee management. https://www.unhcr.org/bg/wp-content/uploads/sites/18/2019/03/CATRO-Employment-Report-EN-FINAL.pdf
203	Education and Training Monitor 2018 Bulgaria Country reports. November 2018 https://ec.europa.eu/education/sites/education/files/document-library-docs/et-monitor-report-2018-bulgaria en.pdf
204	Education and Training Monitor 2020 Country reports. https://op.europa.eu/en/publication-detail/-/publication/cd97ef45-2497-11eb-
205	9d7e-01aa75ed71a1/language-en Ibidem.
206	European Federation of Building and Woodworkers- Country Summary Bulgaria, February 2019.
	https://www.fiec.eu/application/files/5415/7839/2637/VET4LEC summary BG.pdf
207	Education and Training Monitor 2020 Country reports. https://op.europa.eu/en/publication-detail/-/publication/cd97ef45-2497-11eb-9d7e-01aa75ed71a1/language-en
208	European Commission, Horizon 2020: Setting up national qualification and training scheme for craftsmen in the Czech Republic and
209	developing the further offer of training courses in Slovakia, Austria and Bulgaria. https://cordis.europa.eu/project/id/785036 Green Recovery Tracker- Bulgaria.
	https://assets.website-files.com/602e4a891047f739eaf5dfad/60ccec02a395c04d374f8d3d_Bulgaria_Green_Recovery_Tracker_Report.pd
210	Republic of Bulgaria- Integrated Energy and Climate Plan of The Republic of Bulgaria 2021–2030.
	https://ec.europa.eu/energy/sites/ener/files/documents/bg final necp main en.pdf
211	Ibidem.
212	The potential for investment in energy efficiency through financial instruments in the European Union: Bulgaria. May 2020. https://www.fi-
	compass.eu/sites/default/files/publications/The%20potential%20for%20investment%20in%20energy%20efficiency%20through%20financ
	al%20instruments%20in%20the%20European%20Union%20-%20Bulgaria%20in-depth%20analysis 0.pdf
213	Ibidem.
214	Republic of Bulgaria- Integrated Energy and Climate Plan of The Republic of Bulgaria 2021–2030. https://ec.europa.eu/energy/sites/ener/files/documents/bg_final_necp_main_en.pdf
215	Energy Efficiency of Multi-Family Residential Buildings National Programme. <a "="" a-new-call-for-proposals-launched-to-improve-bulgariasenergy-efficiency-in-buildings="" ceenergynews.com="" climate="" href="https://www.mrrb.bg/en/energy-efficiency/energy-effic</td></tr><tr><td>216</td><td>National Recovery and Sustainability Plan- Bulgaria, July 2021.</td></tr><tr><td>217</td><td>https://nextgeneration.bg/upload/55/%D0%9D%D0%9F%D0%92%D0%A3_July2021.pdf</td></tr><tr><td>217</td><td>A new call for proposals launched to improve Bulgaria's energy efficiency in buildings, May 2021. https://ceenergynews.com/climate/a-new-call-for-proposals-launched-to-improve-bulgariasenergy-efficiency-in-buildings/
218	2020 European Semester Country Report – Bulgaria.
	https://www.minfin.bg/upload/43762/2020-european semester country-report-bulgaria en.pdf
219	Republic of Bulgaria- Integrated Energy and Climate Plan of The Republic of Bulgaria 2021–2030.
222	https://ec.europa.eu/energy/sites/ener/files/documents/bg final necp main en.pdf
220	Ibidem
221	EU 2020 Single Market Scoreboard. https://ec.europa.eu/internal_market/scoreboard/performance_by_member_state/bg/index_en.htm
222 223	As EU-27 data is unavailable, considered EU-28 data for comparative purposes.
224	EU 2020 Single Market Scoreboard. https://ec.europa.eu/internal_market/scoreboard/performance_by_member_state/bg/index_en.htm
	National Recovery and Sustainability Plan- Bulgaria, July 2021. https://nextgeneration.bg/upload/55/%D0%9D%D0%9F%D0%92%D0%A3_July2021.pdf
225	Invest Bulgaria Agency, Legislative and Administrative Framework. https://investbg.government.bg/en/pages/1-legislative-and-
	administrative-framework-149.html
226	2020 European Semester Country Report – Bulgaria.
227	https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0501&from=EN
227	2019 European Semester Country Report – Bulgaria.
228	https://ec.europa.eu/info/sites/info/files/2019-european-semester-country-report-bulgaria en.pdf World Bank Group, Doing Business 2020, Economy Profile for Bulgaria.
229	https://www.doingbusiness.org/content/dam/doingBusiness/country/b/bulgaria/BGR.pdf
230	Ibidem.
230	Inward FATS describe the overall activity of foreign affiliates resident in the compiling economy. A foreign affiliate within the terms of inward FATS is an enterprise resident in the compiling country over which an institutional unit not resident in the compiling country has
231	control. Data unavailable for subsequent years.
232	Data unavailable for other sub-sectors including the narrow construction and real estate activities sub-sectors.
233	Outward FATS describe the activity of foreign affiliates abroad controlled by the compiling country. Foreign affiliate within the terms of
	outward FATS is an enterprise not resident in the compiling country over which an institutional unit resident in the compiling country has control.
234	Data unavailable for prior years.
235	Data unavailable for subsequent years.
236	Pulgarian SME Promotion Agency https://www.sma.government.hg/2cago.id=96

237	Bulgarian SME Promotion Agency, Project "Support to the internationalization of Bulgarian enterprises through trade missions, business
	forums, conferences, contact exchanges and bilateral meetings". https://www.sme.government.bg/?page_id=46776
238	Ibidem.
239	Ibidem.
240	National Export Platform, Export strategies. http://export.government.bg/ianmsp/en/SExportStr
241	Convergence Programme (2021-2023), Bulgaria. https://ec.europa.eu/info/sites/default/files/2021-bulgaria-convergence-
	programme_en.pdf
242	EECFA – Buildecon, EECFA 2021 Summer Construction Forecast – 3rd Pandemic edition, June 2021.
	https://buildecon.blog/2021/06/30/eecfa-2021-summer-construction-forecast-3rd-pandemic-edition/
243	Renovate Europe- Renovate2Recover: How transformational are the National Recovery Plans for Buildings Renovation?- Bulgaria.
	https://www.renovate-europe.eu/wp-content/uploads/2018/09/Renovate2Recover-BULGARIA.pdf
244	Ibidem.
245	European Commission, Recovery and resilience plan for Bulgaria. https://nextgeneration.bg/14
246	EECFA – Buildecon, Property demand pushing up Bulgarian residential construction, May 2021. https://buildecon.blog/category/bulgarian-construction/