

# Future Challenges für the German Construction Industry

Federation of the German Construction Industry

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## Future challenges for the German construction industry

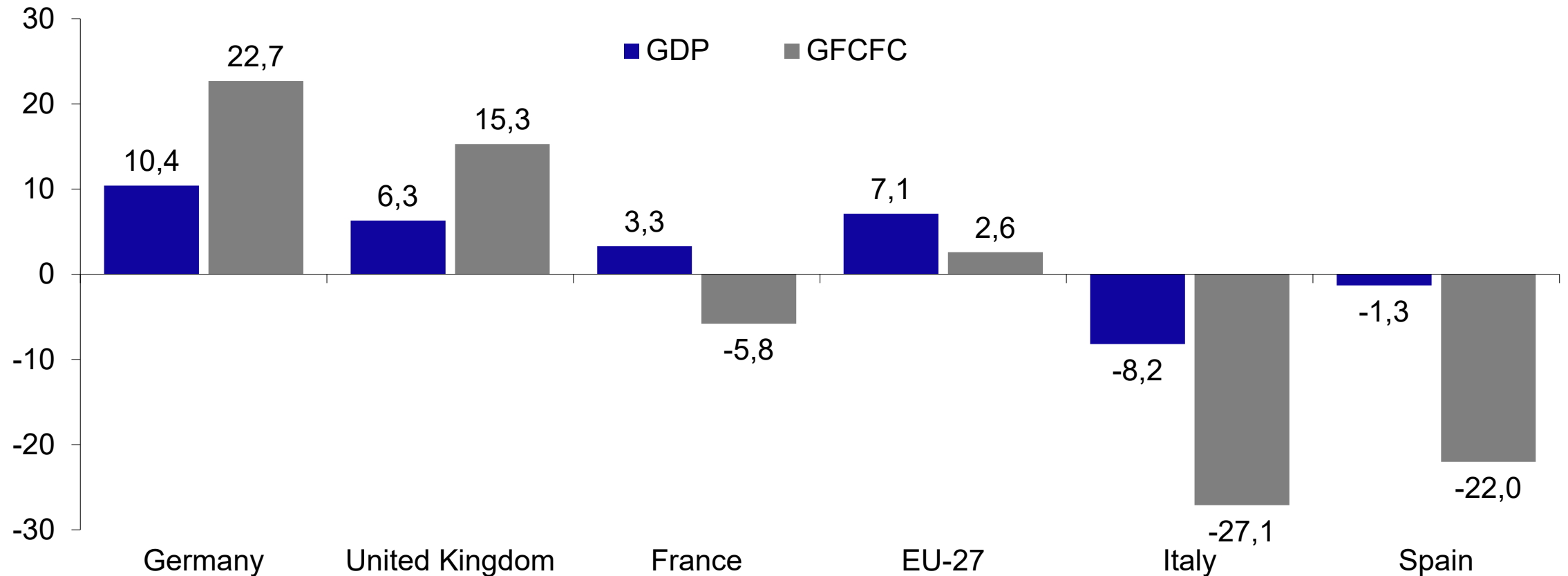
- The construction sector in Europe
- The German construction market: size and structure
- Future challenges: What the companies have to do
- Future challenges: What we expect from politics

## Construction in Europe: a domestic business

- European International Contractors publishes figures for cross border construction activities within Europe, carried out by European companies.
- From 2010 until 2017 the annual value (average) was 68 billion Euro. This equates about 4.5 per cent of the European construction production.
- About 80 per cent of cross border activities are carried out by subsidiary or affiliated companies. Cross border competition stands for only 1 per cent of European construction production.

## Europe and the „Big Five“

aggregated real growth rates, 2010 to 2020, percent (GFCFC = Gross Fixed Capital Formation Construction)



Source: Eurostat

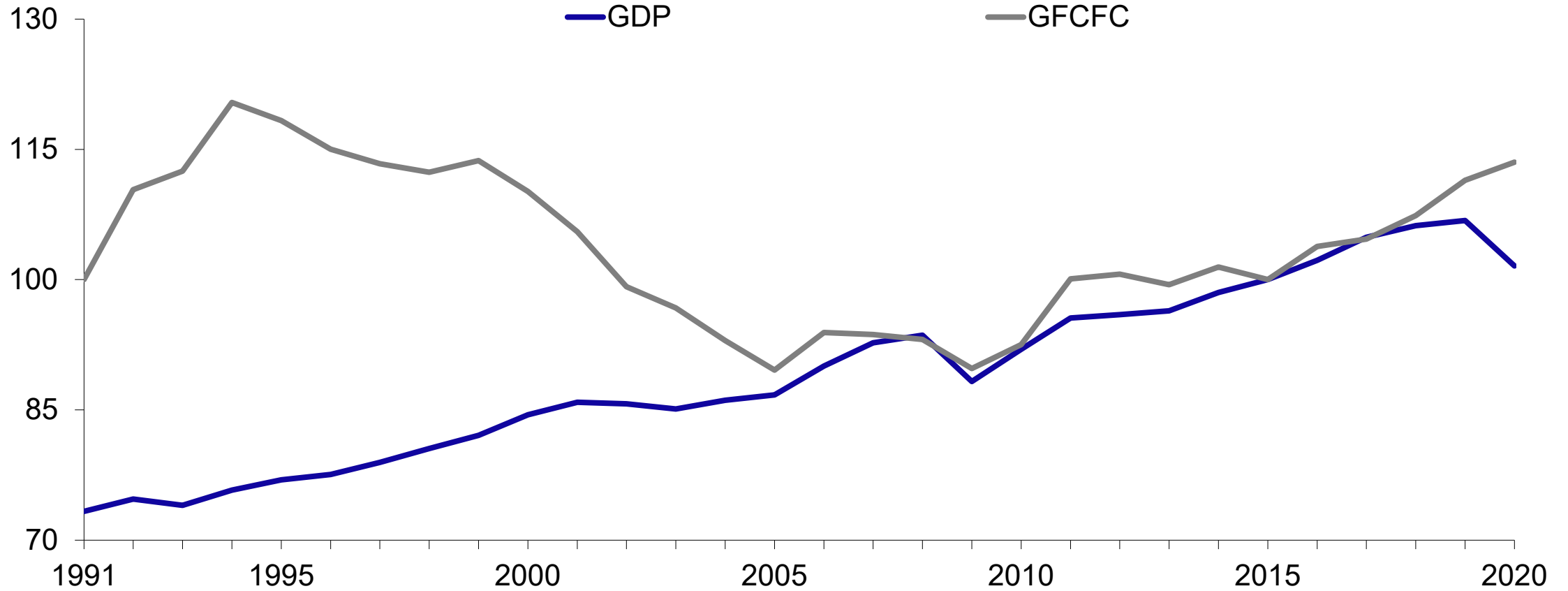
## The German construction market: the biggest in Europe

2020 figures, current prices

- Gross Fixed Capital Formation Construction: 387 billion Euro, 11.6 % of GDP (France: 268 billion, United Kingdom 220 billion)
- Value added in the construction sector: 182 billion Euro, 6.1 % of overall economy
- Employed in construction: 2.57 million persons, 5.7 % of total employment

# German construction: a cyclical business

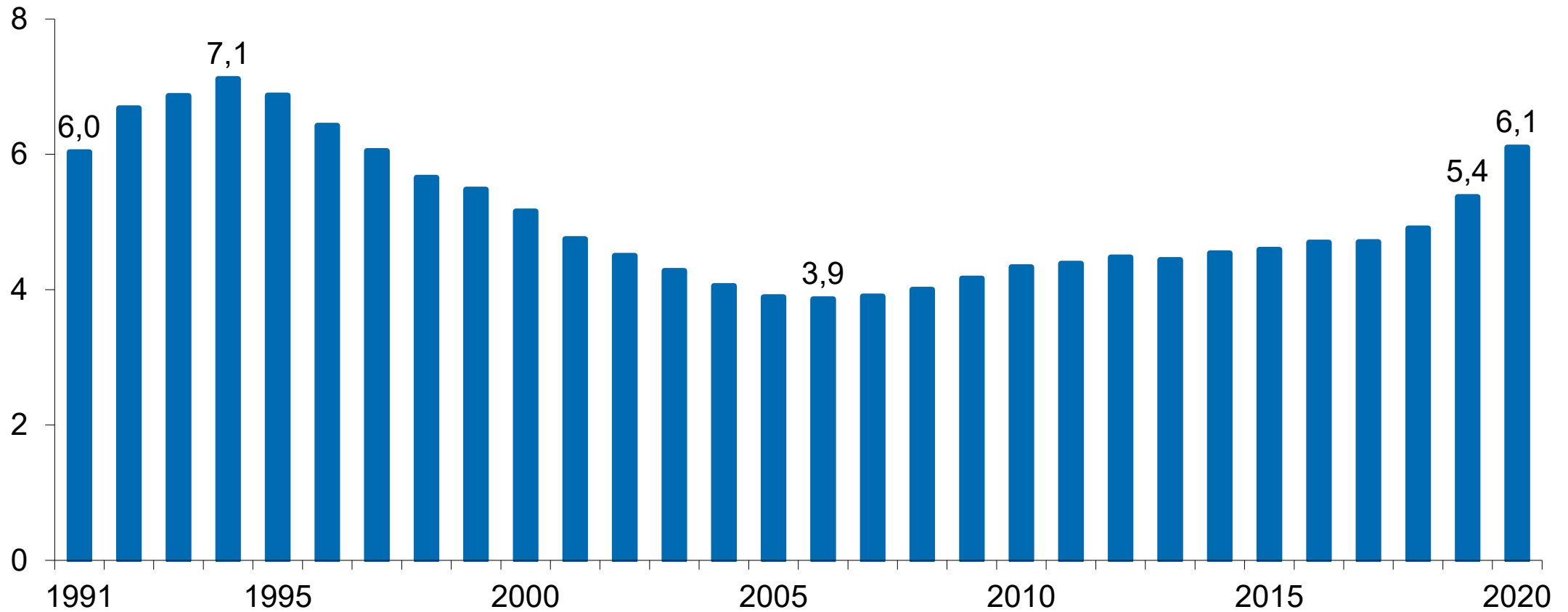
GDP and Gross Fixed Capital Formation Construction (GFCFC), index values, fixed prices, 2015 = 100



Source: Stats Office

# Construction: economic importance

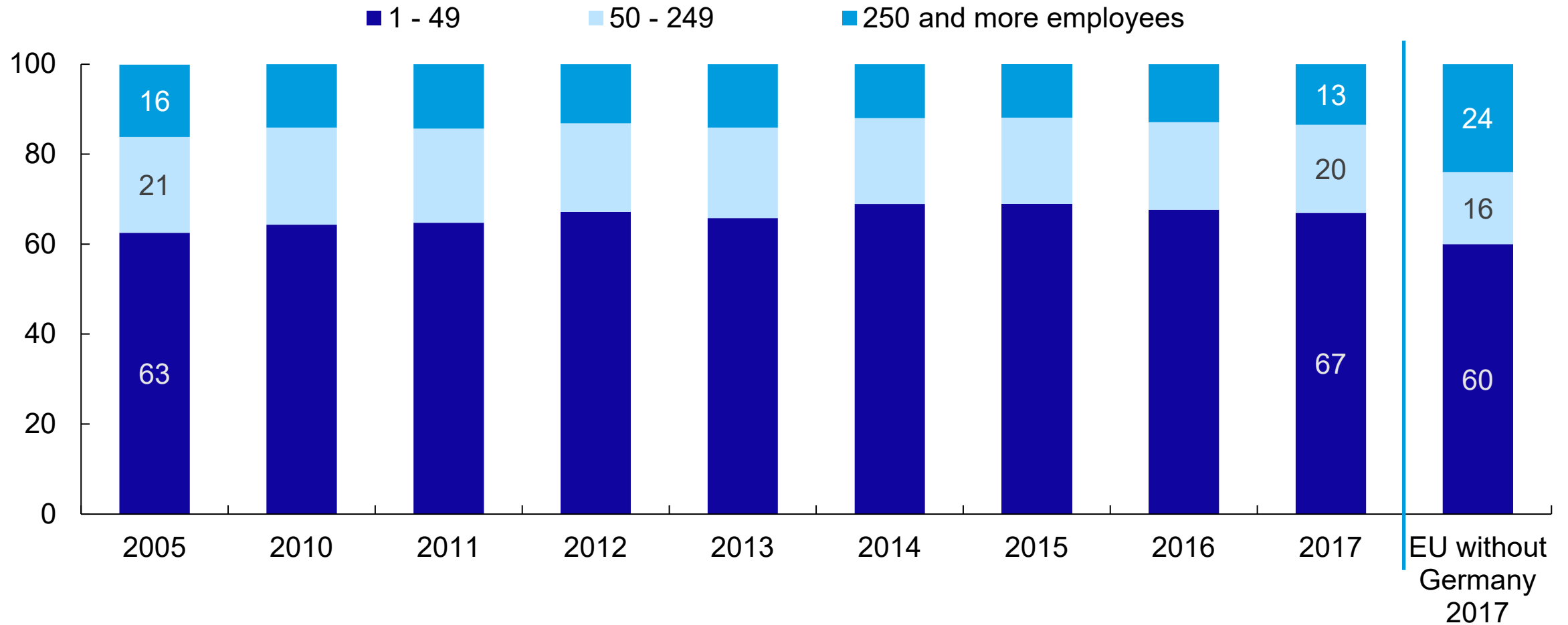
value added in construction in relation to overall economy



Source: Stats Office

# Construction sector dominated by smaller companies

share of turnover, percent



Source: Eurostat

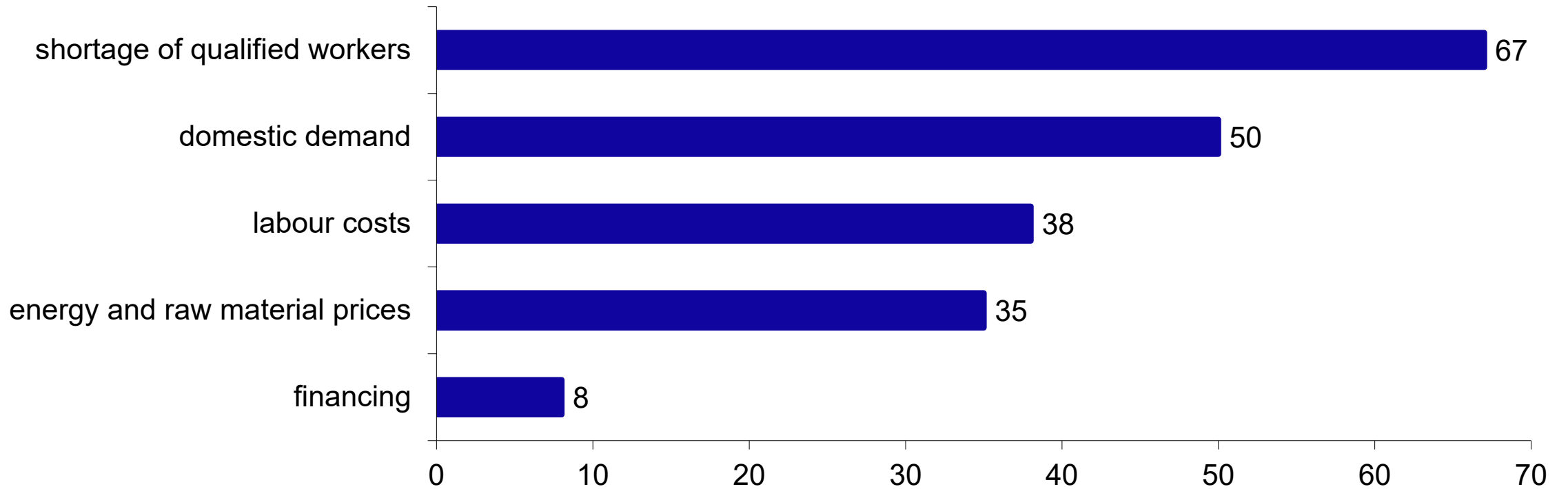


## Construction: future challenges for the construction industry

- Attract and retain qualified **workers**
- expand **capacity** according to demand
- increase **productivity**
- make better use of **prefabrication**
- make progress in **digitalization**

## Business risks: workforce still number one

January 2021 survey among 1.900 construction companies, shares of nomination



Source: Chambers of Commerce

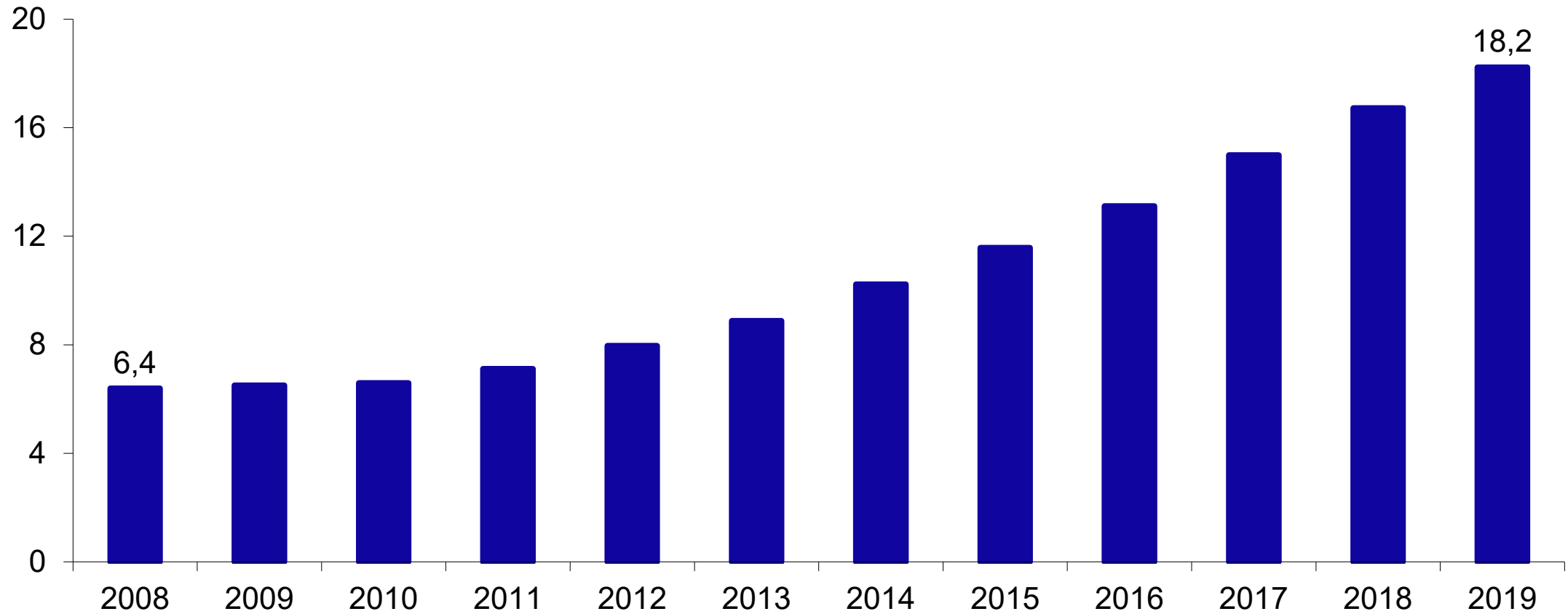
## Attract and retain qualified workers in construction

- Since 2009 the employment in the sector grew by 11 %, value added (fixed prices) by 20 %.
- Unemployment (yearly average) fell from 130,000 to 40,000 persons.
- The share of foreign workers in our staff was raised in this period.
- Employees of foreign subcontractors working in Germany doubled to 101,000.
- Number of first year apprentices was only 12,300 (average) while 18,000 workers retired.
- 24 per cent (178,000 employees) of the workforce in construction is 55 years or older.
- Average payment (same qualification) is about 10 % lower than in manufacturing.

As employers, we need to be more attractive and have to offer better working conditions. For the time being we are dependant on foreign workforce, not as subcontractors, but as permanent workers in our staff.

## Foreign workers in the construction sector

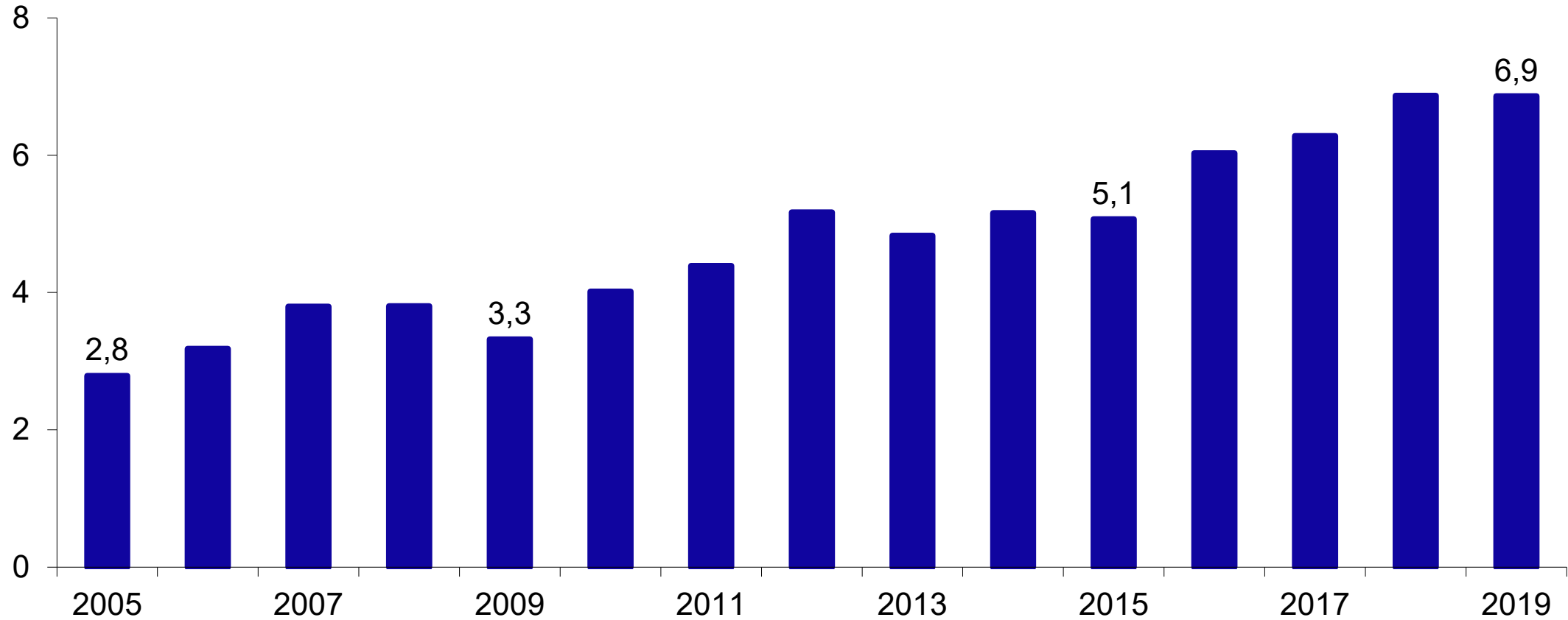
non-German-passport-holders, share of complete workforce, yearly average, percent



Source: Federal Agency for Labour

## Expand capacity: investment in the construction sector

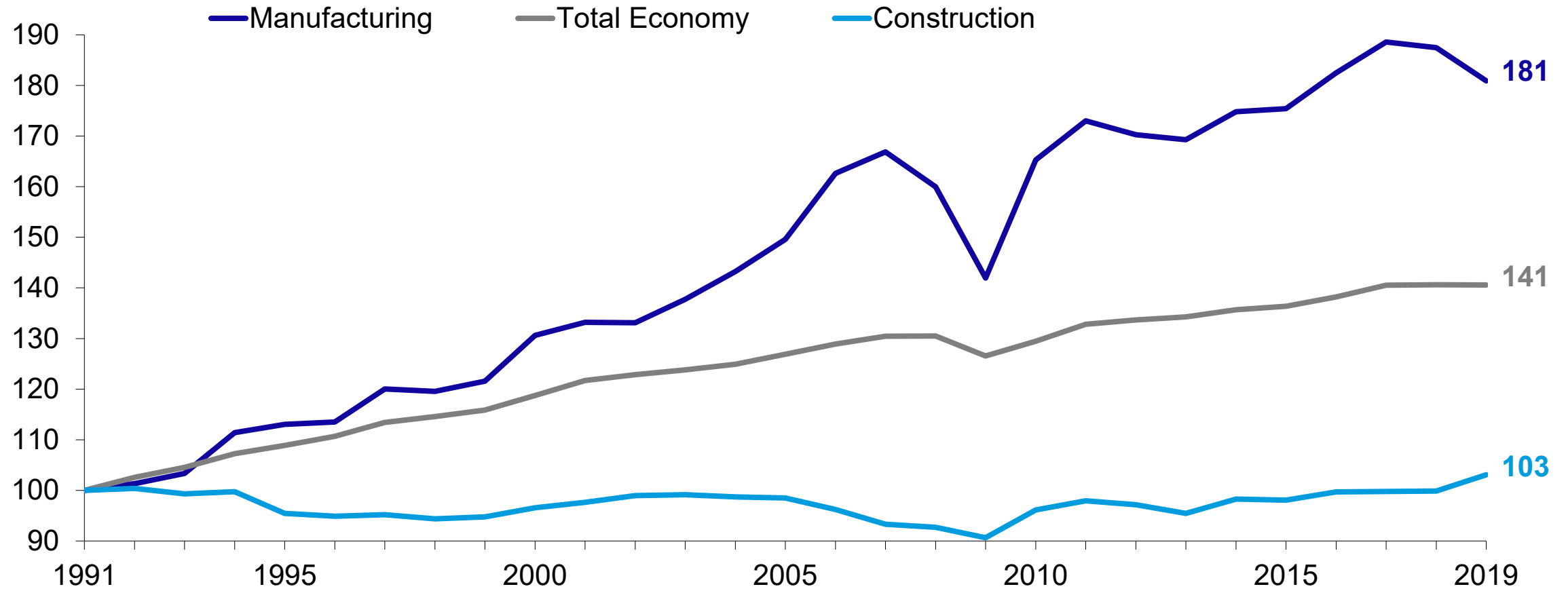
machinery and equipment, billion Euro, fixed prices



Source: Stats Office

# Increase productivity: nearly no productivity in the construction sector

real gross value added per hour worked, 1991 = 100



Source: Stats Office

## Increase productivity: make better use of prefabrication

In 2018 the Federal Ministry of Building, the Federation of the German Construction Industry, the Federal Chamber of Architects and the Federal Association of the Housing Industry signed an agreement to promote modular construction in new residential building.

- Until today 1,200 units have been built or are under construction.
- 2,400 units are in the planning stage.
- Another 2,000 units will be realized outside the agreement, 800 of them are completed.

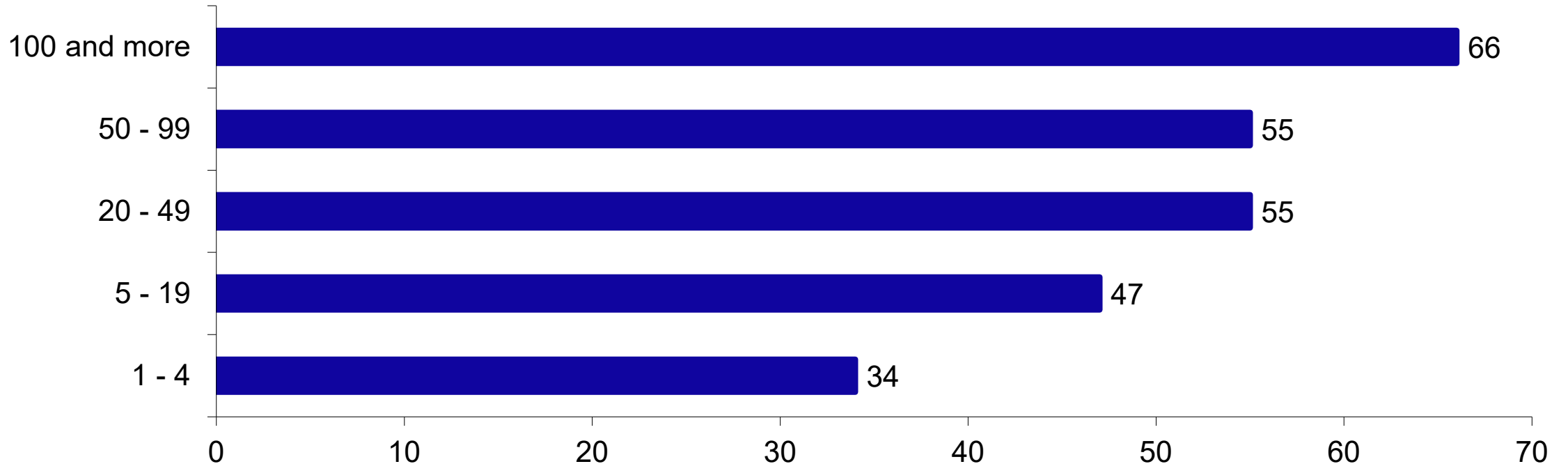


Source: GdW

# Digitalization: no breakthrough in construction so far

degree of digitalization in companies in the survey: scale 1 to 4 (high), answers from those with 3 and 4

## Number of employees

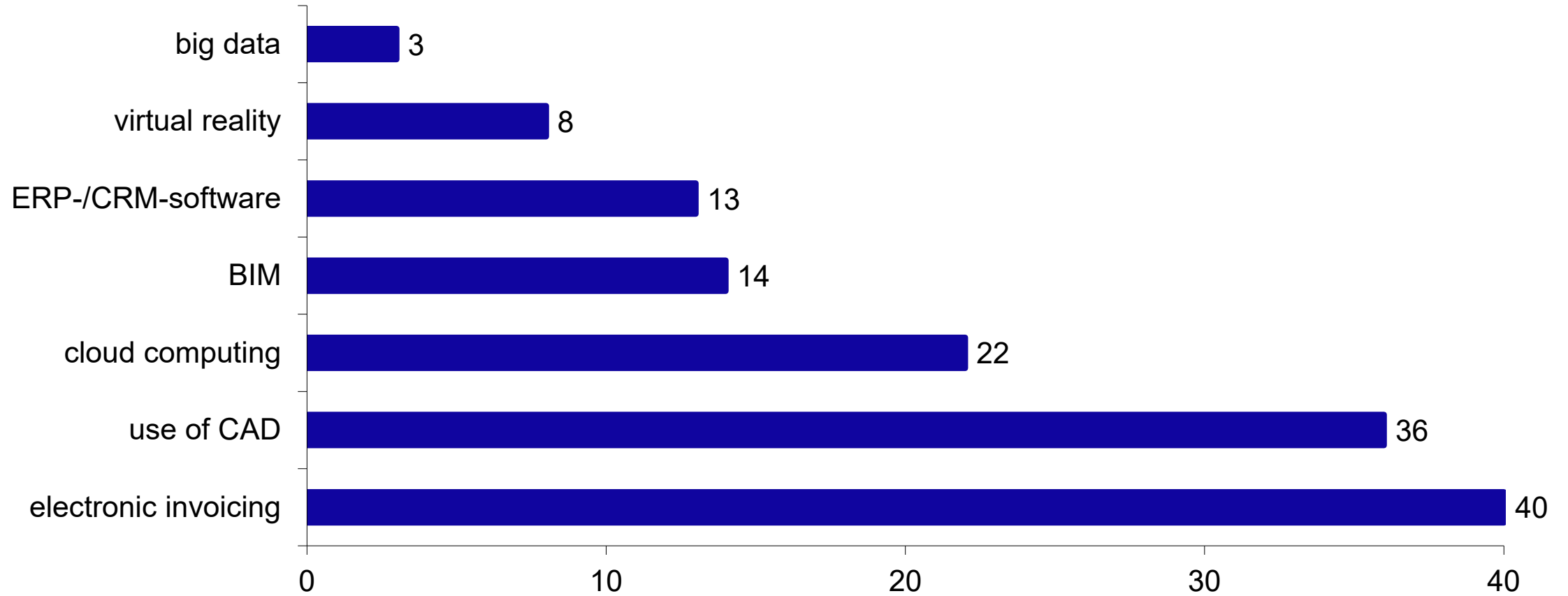


Source: ZEW Mannheim



# Digitalization: use of digital technologies in construction

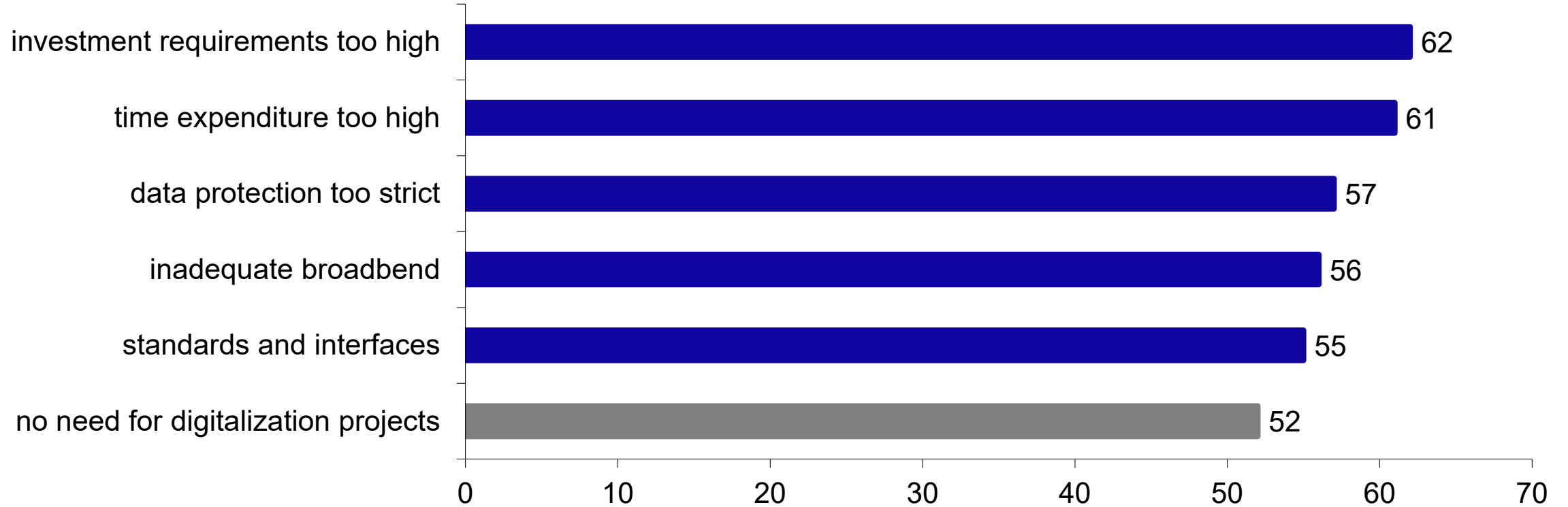
share of companies in the survey



Source: ZEW Mannheim

# Digitalization: obstacles in the construction sector

percent of companies in the survey



Source: ZEW Mannheim

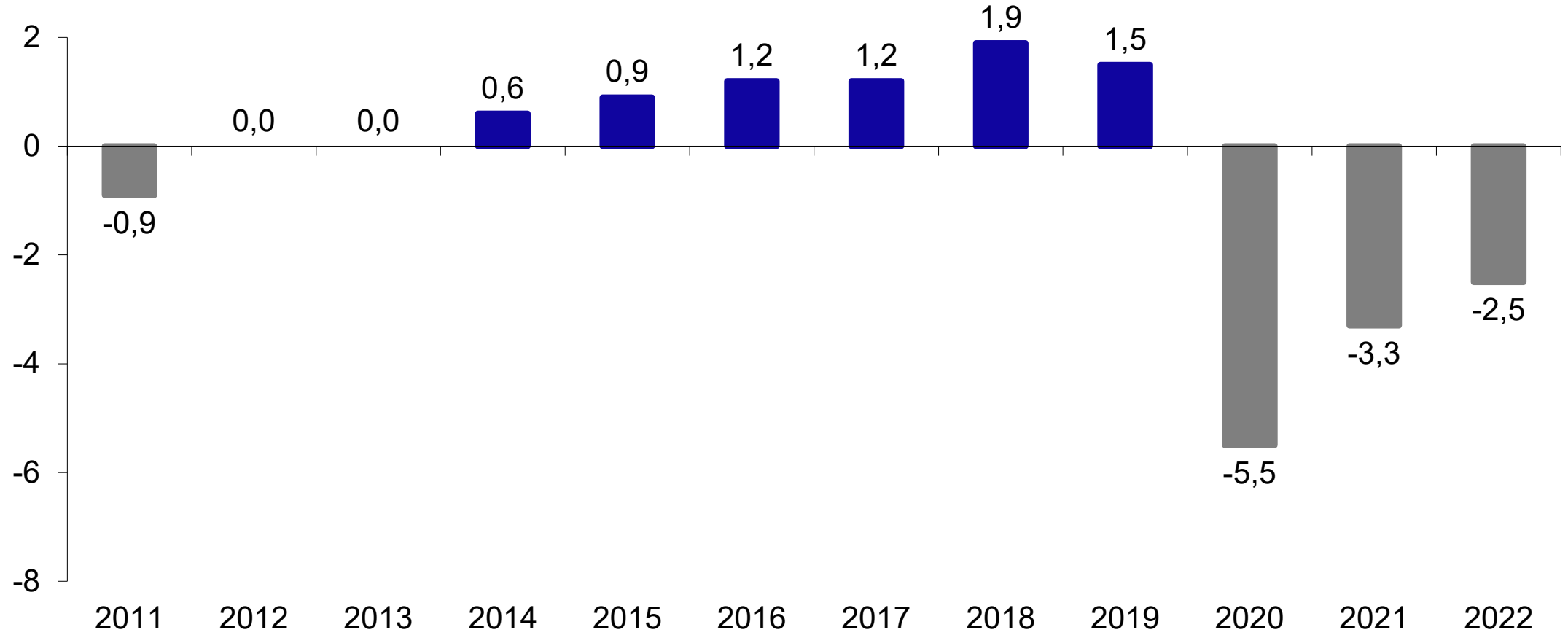
## Construction: what do we expect from politics

We are not asking for subsidies but for a consistent framework:

- keep **public demand** on a high level, maintain infrastructure
- attract and qualify **public employees** in building offices
- reduce the number of **standards and regulations** in construction
- accelerate larger **infrastructure projects**
- keep an eye on costs in environmental protection policy

# Public finance: annual net lending/borrowing in relation to GDP

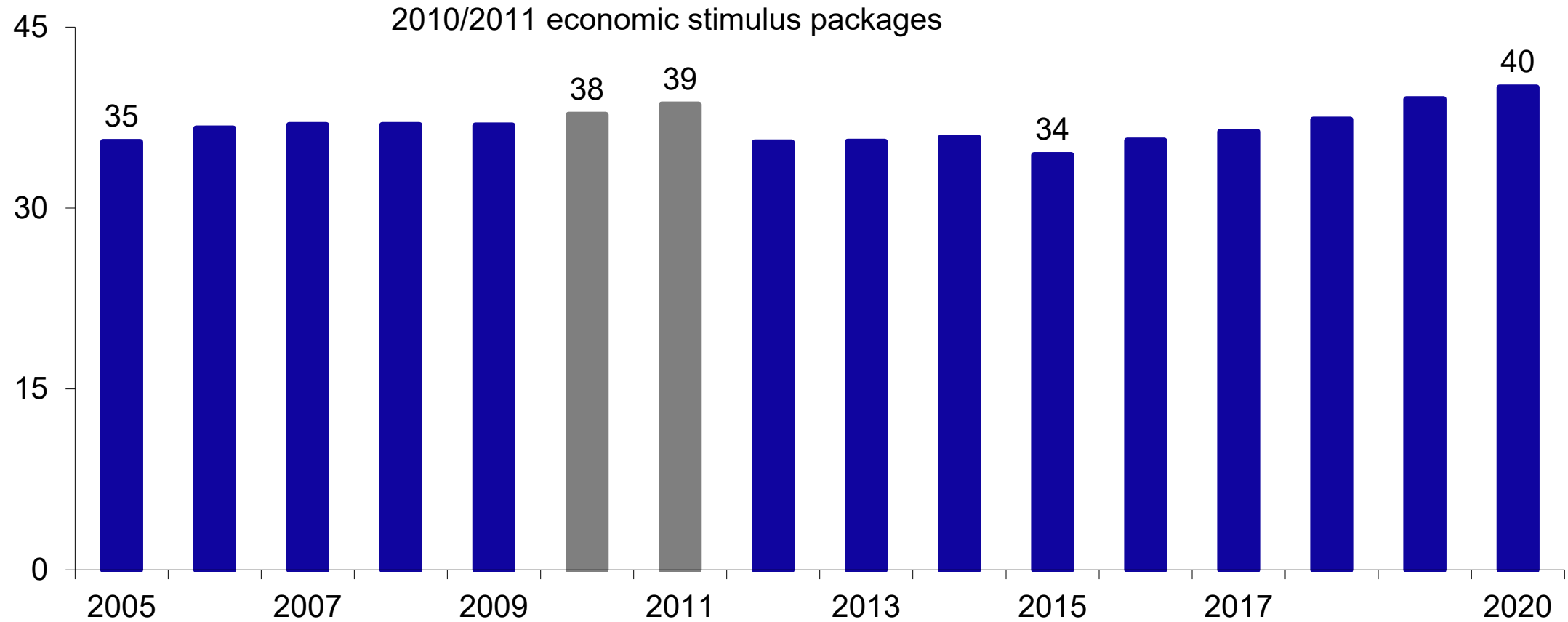
percent



Source: Stats Office, 2020 – 2022 forecast economic research institutes

# Public investment into construction

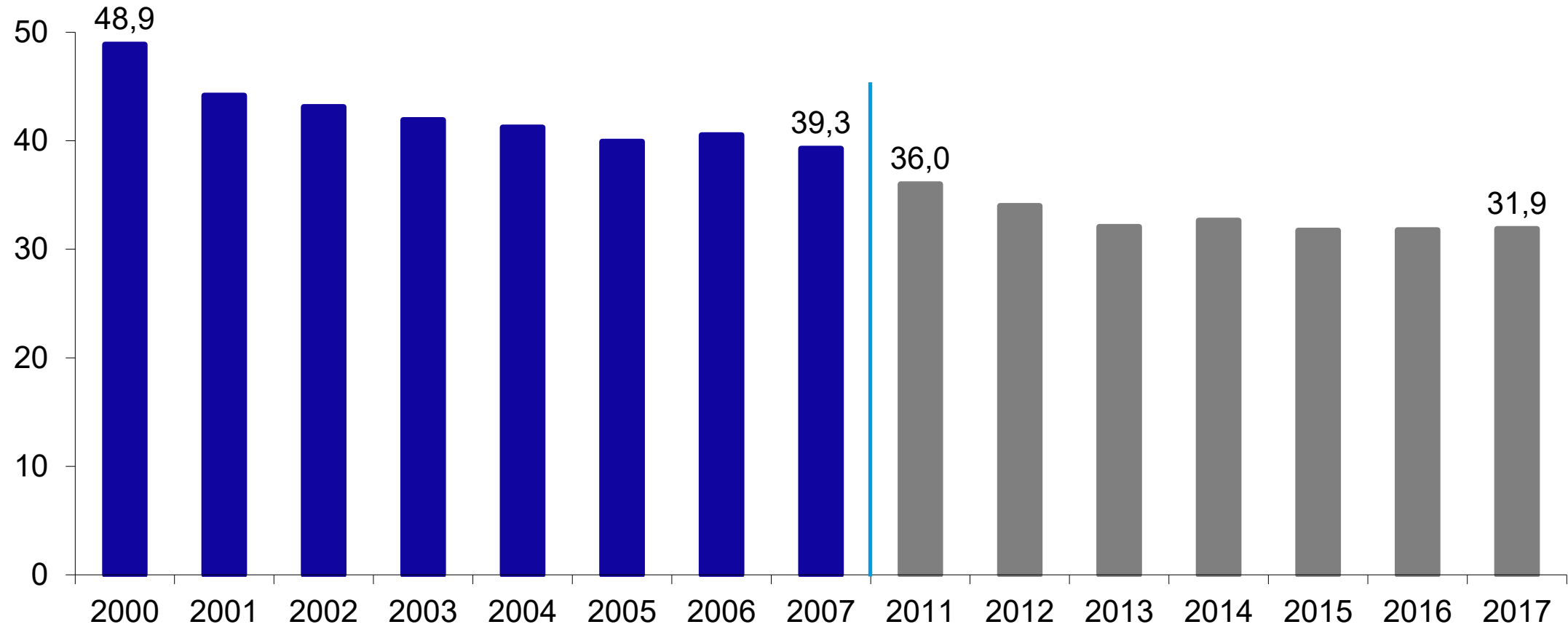
billion Euro, fixed prices



Source: Stats Office

## Attract and qualify public employees

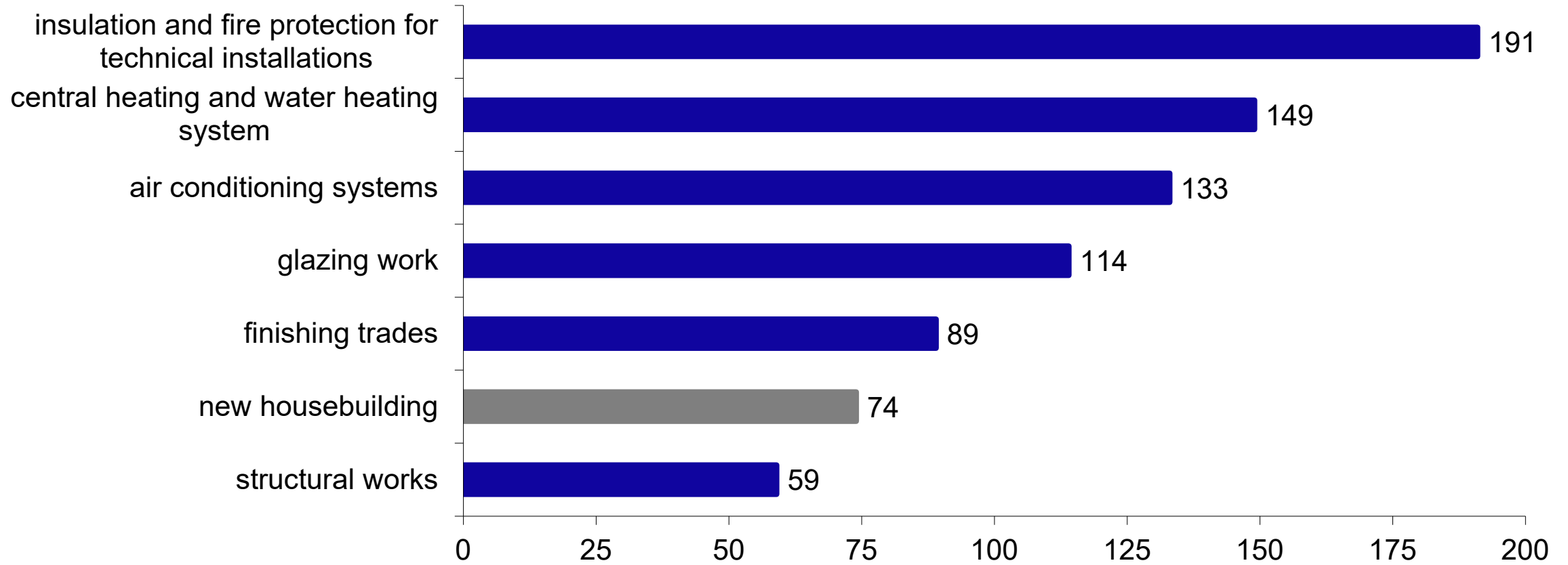
employment in local building administration, in 1,000, change in statistical system from 2008 - 2010



Source: DIW Berlin

# Standards and regulations drive construction prices

new housebuilding, price index, rise from 1991 to 2020, percent



Source: Stats Office

## Larger infrastructure projects: we need to be faster and better

Planning and construction of a new infrastructure projects take up to 20 years. The budget is regularly exceeded. A reform commission recommends:

- Plan first, then calculate the budget, then choose a contractor.
- Award the contract to the economically best not the cheapest bidder.
- Make greater use of qualitative evaluation criteria in the tender process.
- Make use of partnership project cooperation: build, do not argue in court.
- Make changes to the plan only after carefully considering risks, costs and deadline.
- Regulate processes and responsibilities at an early stage.
- Strengthen transparency, make the project a regular subject to controlling.



## Larger infrastructure projects: planning acceleration laws

Since 2018 the Federal Government has initiated three different laws concerning the acceleration of planning the infrastructure. A fourth is on its way. The main contents are:

- Accelerate the planning of road and railway projects by shortening the time limits for legal action.
- Create the opportunity to allow preparatory measures or sub-measures in ongoing planning approval procedures.
- Selected railway and waterway projects can be planned and prepared easier and faster before being brought into the legal process.
- Planning and approval of new replacement buildings will become easier and faster.
- Generally: the legislative process will become faster, especially by shortening the process of legal actions against projects.

## Environmental protection policy and construction: keep an eye on costs

A new regulation will strongly influence the use of mineral substitute building materials. Coming from the deconstruction of buildings, they have been used for road construction so far. The new regulation requires that most of that material has to be deposited in landfills. This will lead to a shortage of space in landfills and drive the costs.

It is possible, that the Green Party might be a part of the new federal government, elected in autumn 2021. They recently came forward with their ideas concerning construction:

- Implement a binding quota for the use of recycled building materials in public tenders.
- After 2025 only renewable energy should be allowed for the heating of new houses.
- Establishing a take-back system for construction materials by the manufacturers.
- Implementation a binding quota for the use of recyclable construction materials.
- Introduction of a levy on primary building materials.
- Implementation of a Building Resources Act.