

# DEFENCE DATA 2019-2020

Key findings and analysis



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# Introduction

**Since 2006, The European Defence Agency (EDA) collects defence data on an annual basis, in line with the Agency's Ministerial Steering Board Decision of November 2005. The Ministries of Defence of the Agency's 26 Member States (MS) provide the data. EDA acts as the custodian of the data and publishes the aggregated figures in these booklets.**

The 2005 data has been collected during the pilot exercise, which included only a limited number of indicators. A complete dataset is available since 2006, based on the revised list of indicators, including the four agreed collective benchmarks for investment, approved by the Agency's Ministerial Steering Board in November 2007. The 2020 defence data figures were compiled by EDA through the 2021 PESCO National Implementation Plans and the 2019/2020 Coordinated Annual Review on Defence (CARD) Consolidated Information.

All data is collated ("total incorporates 26 EDA Member States"), and it has been rounded. Defence expenditure figures are provided in constant 2020 prices, in order to take inflation into account and allow for a comparison across years.<sup>1</sup>

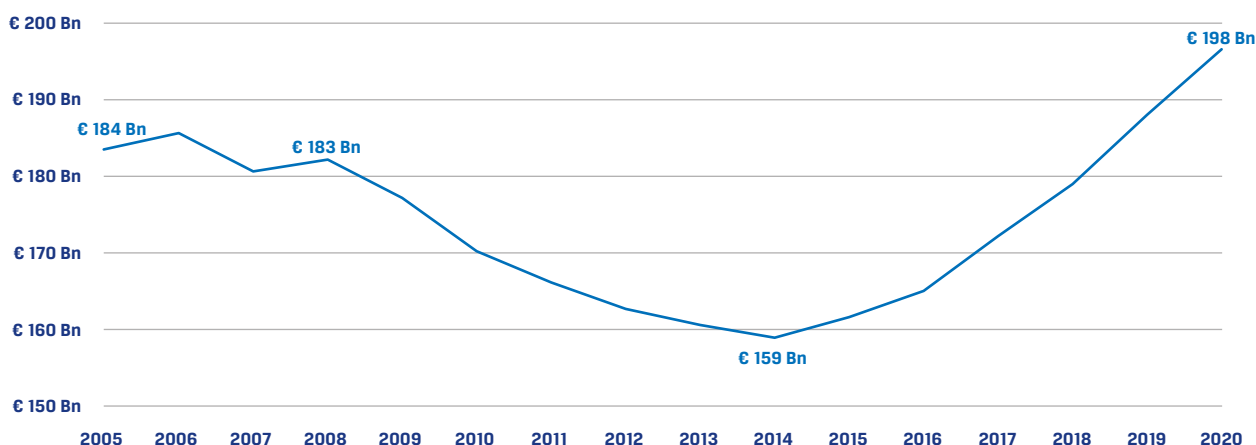
1. Source of GDP deflator: European Commission, DG ECFIN, Macro-economic database AMECO..



# Total Defence Expenditure

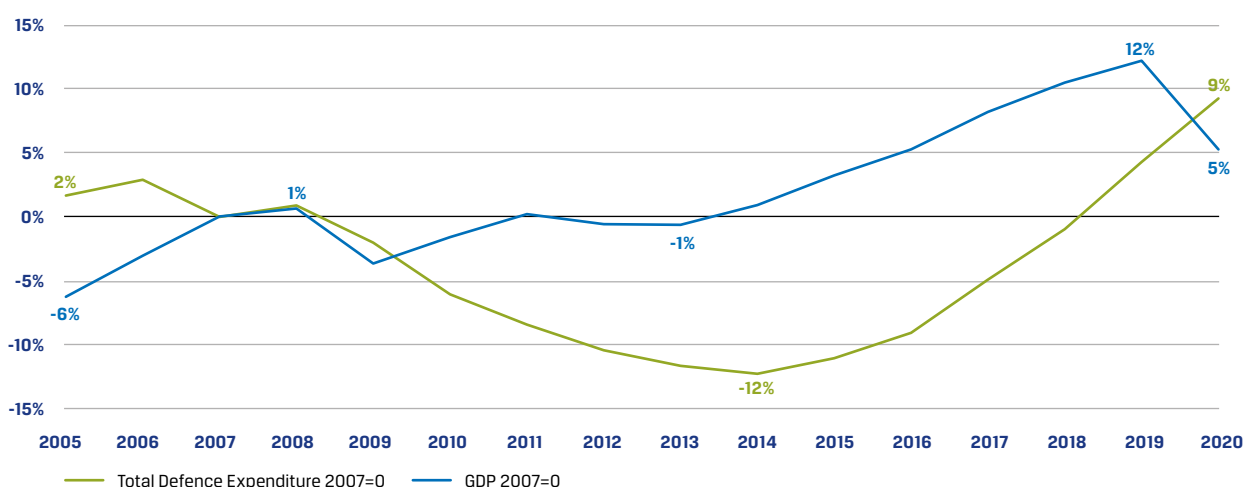
2020 saw defence expenditure by the 26 EDA MS rise for the sixth consecutive year. Taken together, MS allocated €198 billion to defence. Compared to 2019, defence expenditure increased by 5% despite the ongoing economic crisis caused by the COVID-19 pandemic (Figure 1).

**FIGURE 1. TOTAL DEFENCE EXPENDITURE (CONSTANT 2020 PRICES)**



The current increase contrasts with the 2007/2008 financial crisis when defence expenditure fell almost in parallel to the declining gross domestic product (GDP) (Figure 2). Following its prolonged decrease until 2014, defence expenditure has picked up speed again and has grown even more strongly than GDP since 2017. Whereas MS' GDP decreased by 6% in 2020, defence expenditures resisted the economic pressure so far. Despite this positive trend, the long-term impact of the COVID-19 pandemic on defence budgets remains unclear at this stage. Partially a result of the weakening economic climate, the percentage MS allocated to defence expenditure as percentage of GDP reached 1.5 % in 2020, compared to 1.4% in 2019.

**FIGURE 2. EVOLUTION OF TOTAL DEFENCE EXPENDITURE AND GDP, TAKING 2007 AS A REFERENCE YEAR**

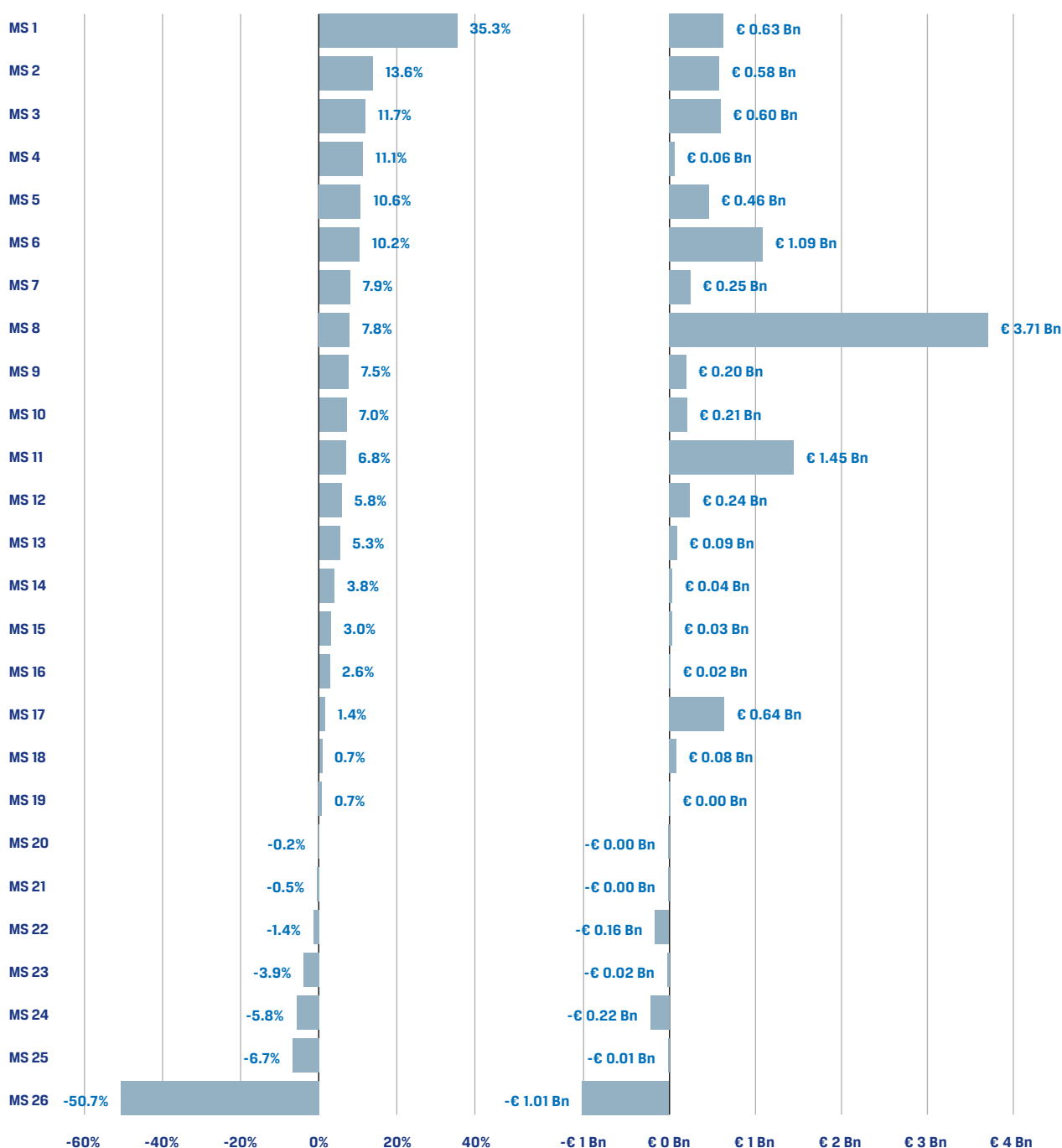


In total, 19 MS raised their defence expenditures in 2020 compared to 2019. Out of those, 13 MS increased defence expenditure by more than 5% and 6 MS raised their defence spending by 10% or more. The highest increase amounted to €3.7 billion in absolute and 35% in relative terms. 7 MS decreased their expenditure in 2020 compared to 2019 spending levels. The strongest decrease amounted to around €1 billion, corresponding to a 51% decline in relative terms (Figure 3).

**FIGURE 3. CHANGE IN TOTAL DEFENCE EXPENDITURE BY MEMBER STATES, 2019-2020**

*Change in Total Defence Expenditure  
in Billion €, 2019-2020*

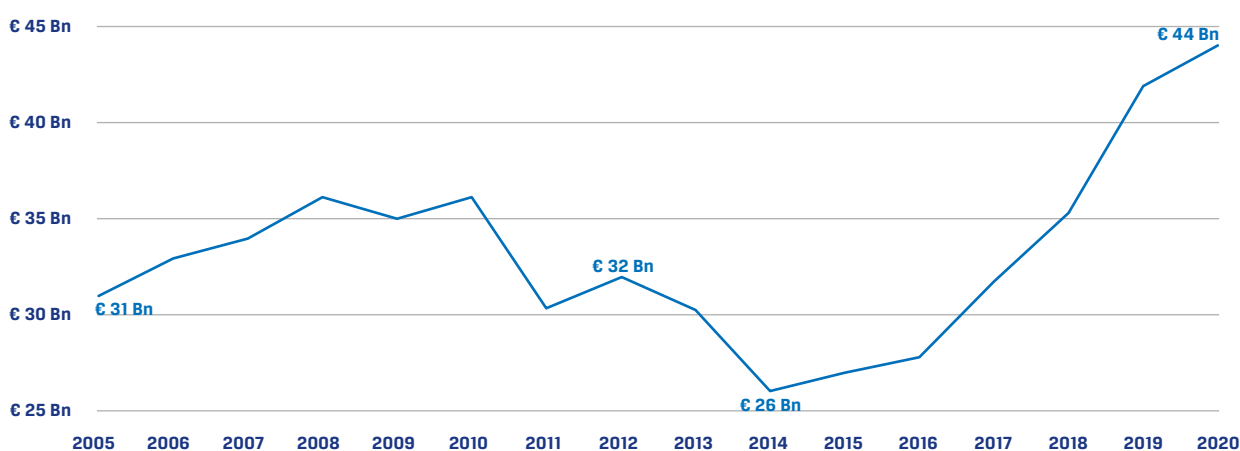
*Change in Total Defence Expenditure  
in Billion €, 2019-2020*



# Defence Investment

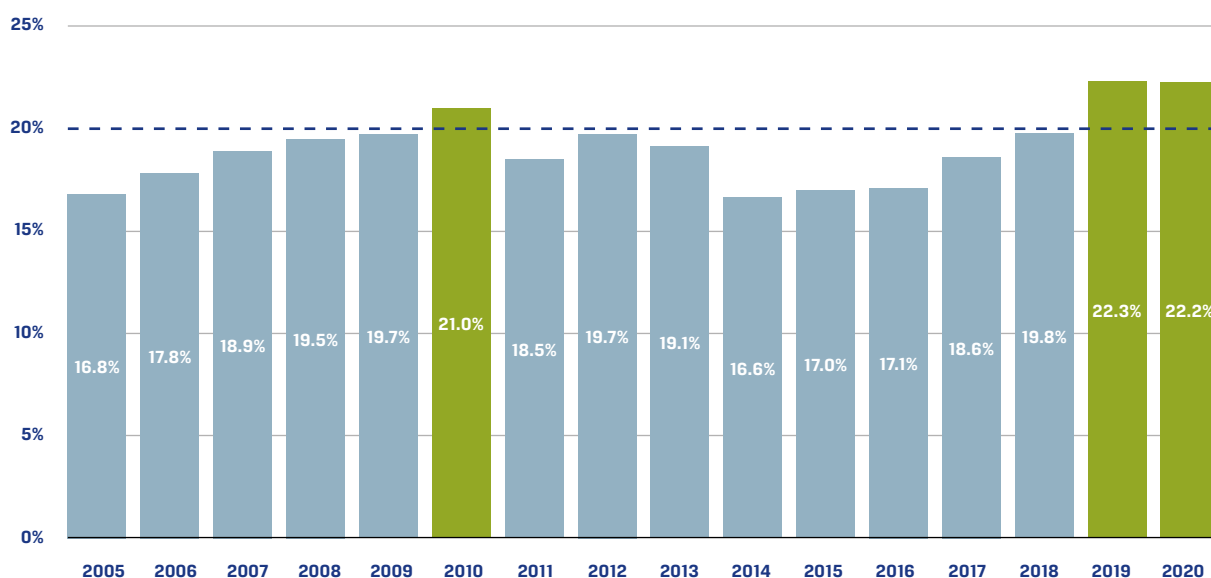
Corresponding to the increase in total defence expenditure, 2020 saw defence investments in research, development and procurement of defence equipment continue to also grow. In 2020, defence investments by MS reached €44 billion. Following three years of vigorous growth rates ranging between 11% and 19%, the increase in defence investments slowed down compared to the previous year but still amounted to 5% (Figure 4). Compared to 2014, when defence investment reached its historic low, spending increased by almost 70%.

**FIGURE 4. DEFENCE INVESTMENT EXPENDITURE (CONSTANT 2020 PRICES)**



As share of total defence expenditure, defence investments reached 22% – the same value as in 2019 – and thus, MS continued to meet the 20% collective benchmark (Figure 5). This development is positive and in line with the relevant commitment under PESCO.

**FIGURE 5. DEFENCE INVESTMENT AS % OF TOTAL DEFENCE EXPENDITURE**





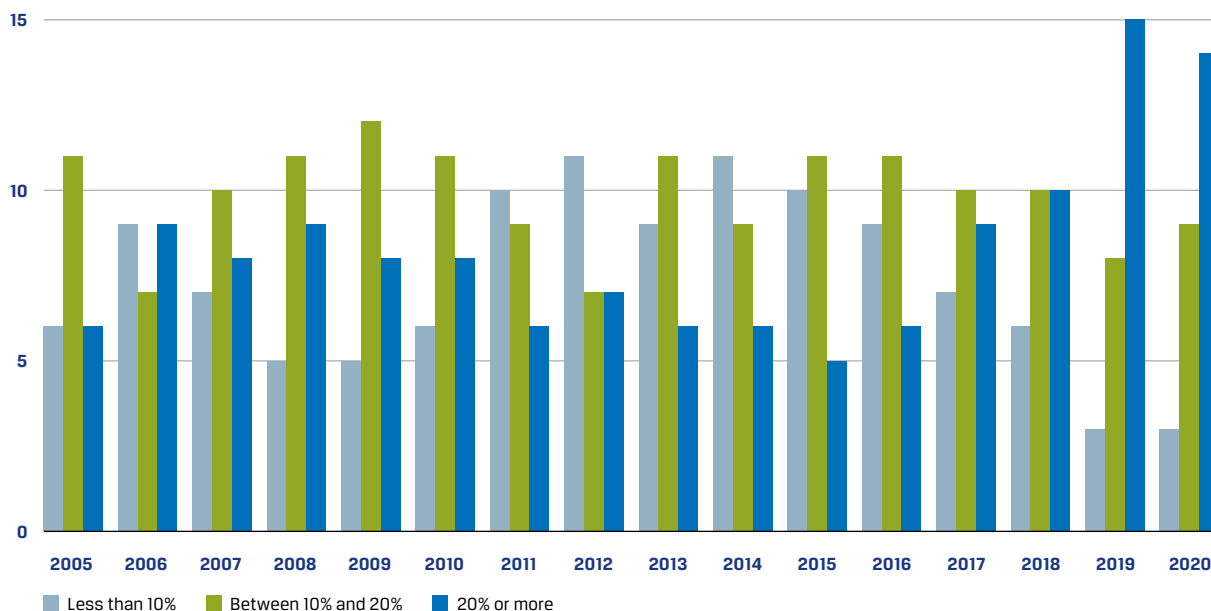
At the disaggregated level, the number of MS achieving the benchmark remained largely stable compared to the previous year. In 2020, 14 MS allocated 20% or more of their total defence expenditure on defence investments, while 15 MS did so in 2019. Therefore, 2020 saw the second highest number of MS reaching the benchmark since recording started in 2005. This confirms the current consolidation of defence investment in Europe, particularly in comparison with 2014, when the overall share of defence expenditure allocated to defence investment was at a record low, when only 6 MS reached the benchmark (Figure 6 and 7).

The number of MS allocating between 10% and 20% of their defence expenditure to defence investment has increased from 8 MS in 2019 to 9 MS in 2020. At the same time, the number of MS spending less than 10% of their total defence expenditure on defence investment remained at a historic low (3 MS). In comparison, in the years following the 2007/2008 financial crisis, the majority of MS were spending well below the benchmark, with up to 11 MS spending less than 10% of their defence expenditure on defence investments.

**FIGURE 6. EVOLUTION OVER TIME OF MEMBER STATES ACHIEVING THE BENCHMARK ON DEFENCE INVESTMENT**

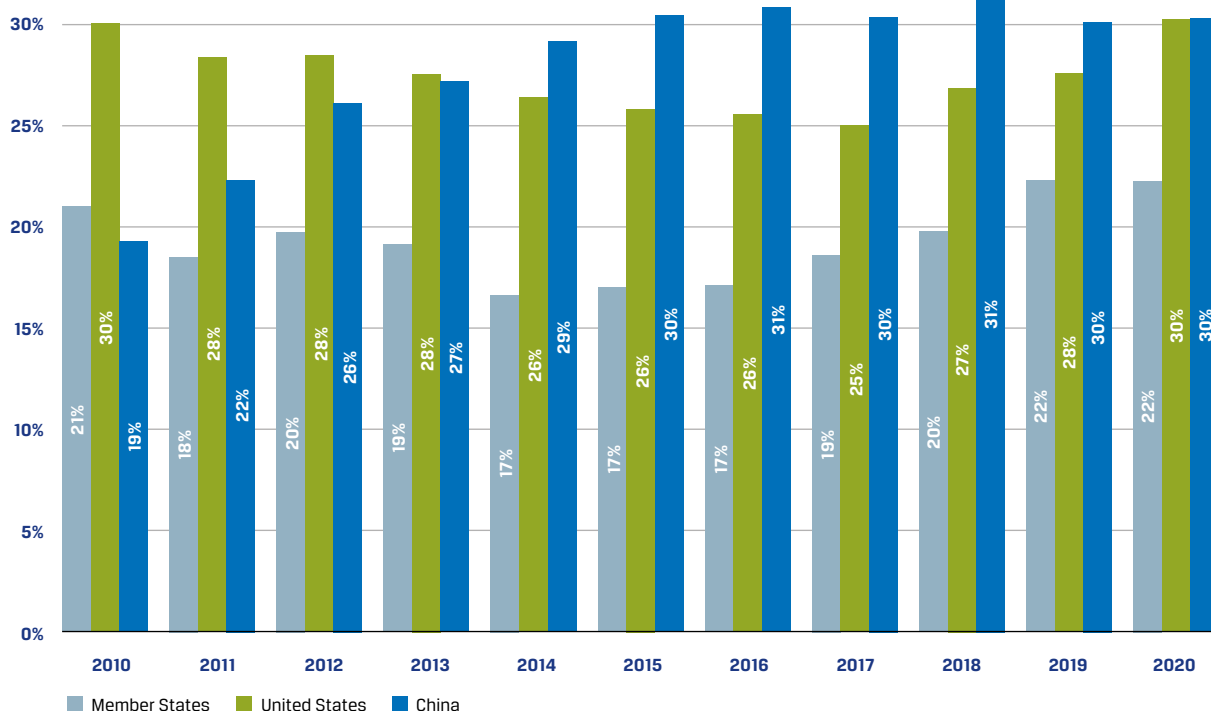


**FIGURE 7. NUMBER OF MEMBER STATES SPENDING LESS THAN 10%, BETWEEN 10% AND 20%, AND 20% OR MORE OF THEIR TOTAL DEFENCE EXPENDITURE ON DEFENCE INVESTMENT**



Despite the achievement of the benchmark since 2019 and the important positive trend in this area, the share allocated to defence investment remains below investment levels of other major international players. China and the US spent around 30% of their defence expenditure on defence investments.<sup>2</sup> Notably, the US has constantly allocated more than 25% of its defence expenditure on investments over the last ten years and China has been gradually increasing the share dedicated to defence investment since 2010 (Figure 8).

**FIGURE 8. DEFENCE INVESTMENT OF MEMBER STATES, THE UNITED STATES AND CHINA AS % OF TOTAL DEFENCE EXPENDITURE**

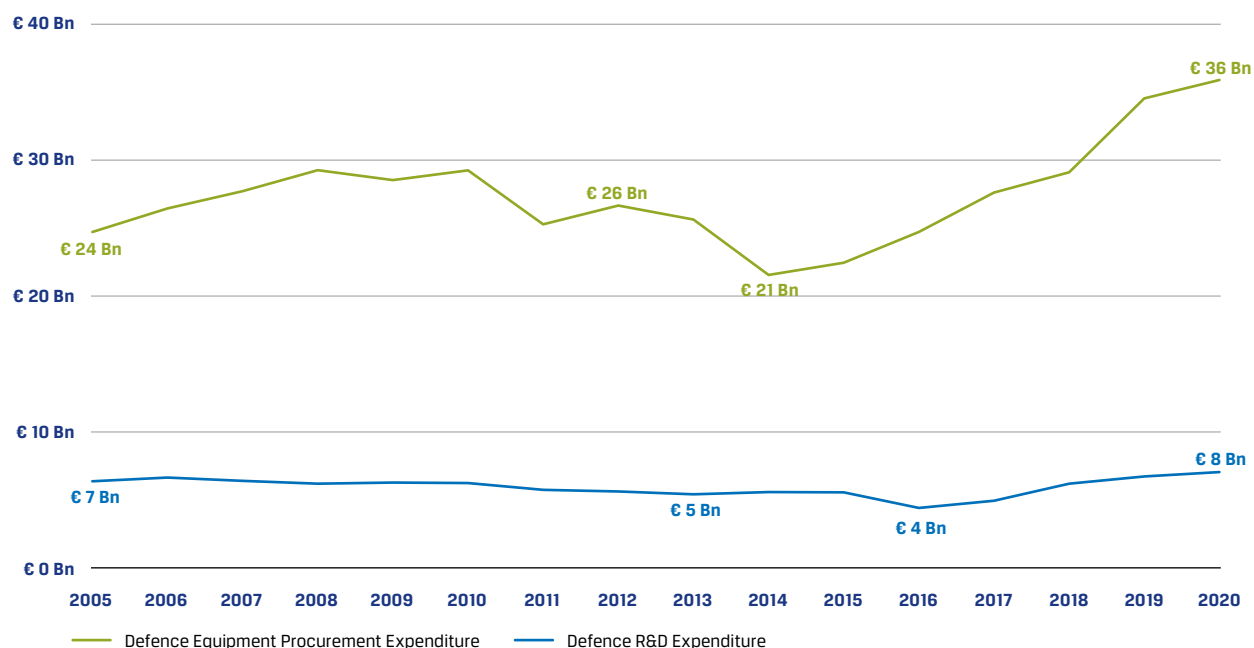


2. The data for the United States and China is taken from the IISS Military Balance and online database.



The procurement of new equipment has benefitted most strongly from the overall increase in defence investments. In 2020, 83% of the expenditure on defence investments were allocated to equipment procurement, while 17% were apportioned to Defence R&D. Overall, in 2020, defence equipment procurement increased by roughly 4% compared to 2019 spending levels reaching € 36 billion in 2020. Defence R&D grew by almost 7% and amounted to € 8 billion (Figure 9).

**FIGURE 9. DEFENCE EQUIPMENT PROCUREMENT AND DEFENCE R&D EXPENDITURE (CONSTANT 2020 PRICES)**



**€ 36 BILLION  
DEFENCE  
EQUIPMENT  
PROCUREMENT**

Up 4% on 2019

**€ 8 BILLION  
DEFENCE  
RESEARCH &  
TECHNOLOGY**

Up 7% on 2019

# European Collaborative Defence Equipment Procurement<sup>3</sup>

Despite the increase in total defence expenditure, defence investments and defence equipment procurement, spending for collaborative projects does not seem to be a priority for the majority of MS. In 2020, MS spent €4.1 billion on European collaborative equipment procurement (Figure 10). This corresponds to a decrease by 13% over 2019 and forms the third lowest value recorded by EDA since 2005. As a result, MS fall collectively short of achieving the benchmark of spending 35% of their total defence equipment procurement in cooperation with other EU MS, which is also a commitment under PESCO. In 2020, MS only conducted 11% of their total equipment procurement in a European framework. Since 2016, the share allocated to European collaborative equipment procurement has been decreasing continuously, reaching a new lowest level in 2020 (Figure 11). This is partially a result of the overall increase in defence equipment procurement which did not lead to similar growth of the European collaborative equipment procurement. Yet, the defragmentation of the European defence capability landscape can only be achieved through a parallel increase in European cooperation, helping MS to procure their military equipment more efficiently. In the years to come, the collaborative opportunities provided by the Coordinated Annual Review on Defence (CARD), in combination with the funds provided under the European Defence Fund (EDF) and projects under the Permanent Structured Cooperation (PESCO) framework could reverse this trend and help to spur this much needed investment in cooperative European projects.

3. Since 2012, a deeper assessment of European collaborative defence equipment procurement is not possible because only a limited number of MS provided this data.

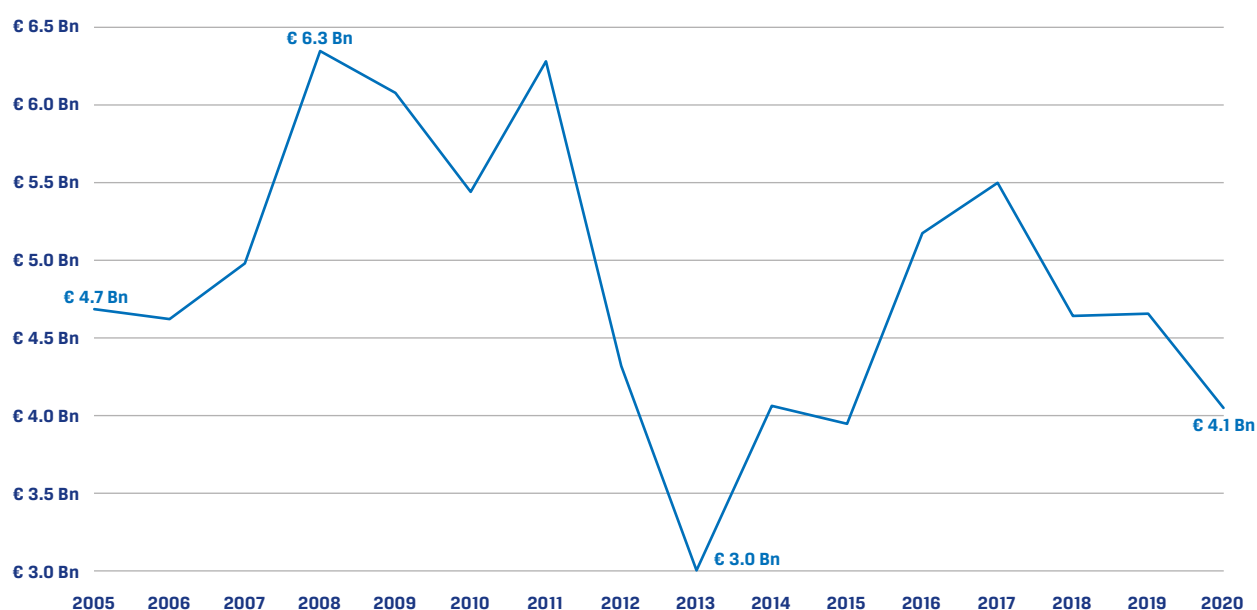


**€4.1 BILLION  
EUROPEAN  
COLLABORATIVE  
EQUIPMENT  
PROCUREMENT**

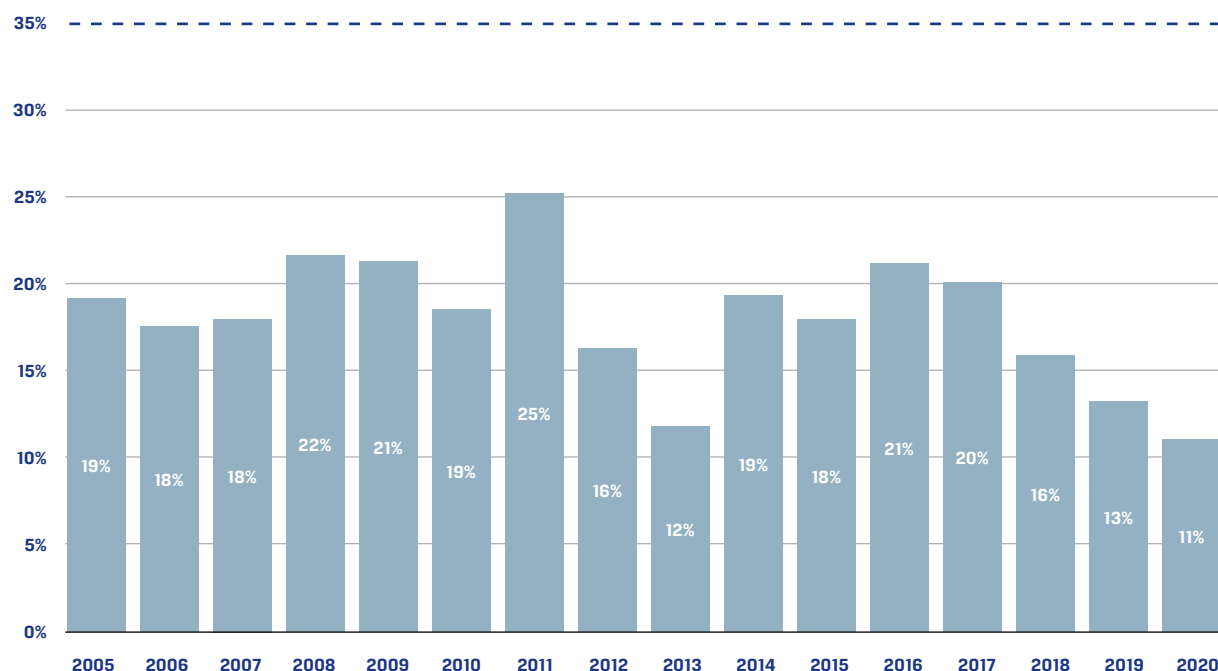
**Down 13% on 2019**

**The increase in  
total defence  
expenditure, defence  
investments and  
defence equipment  
procurement is  
not matched by  
collaborative  
European spending.**

**FIGURE 10. EUROPEAN COLLABORATIVE DEFENCE EQUIPMENT PROCUREMENT EXPENDITURE (CONSTANT 2020 PRICES)**



**FIGURE 11. EUROPEAN COLLABORATIVE DEFENCE EQUIPMENT PROCUREMENT AS % OF TOTAL DEFENCE EQUIPMENT PROCUREMENT**

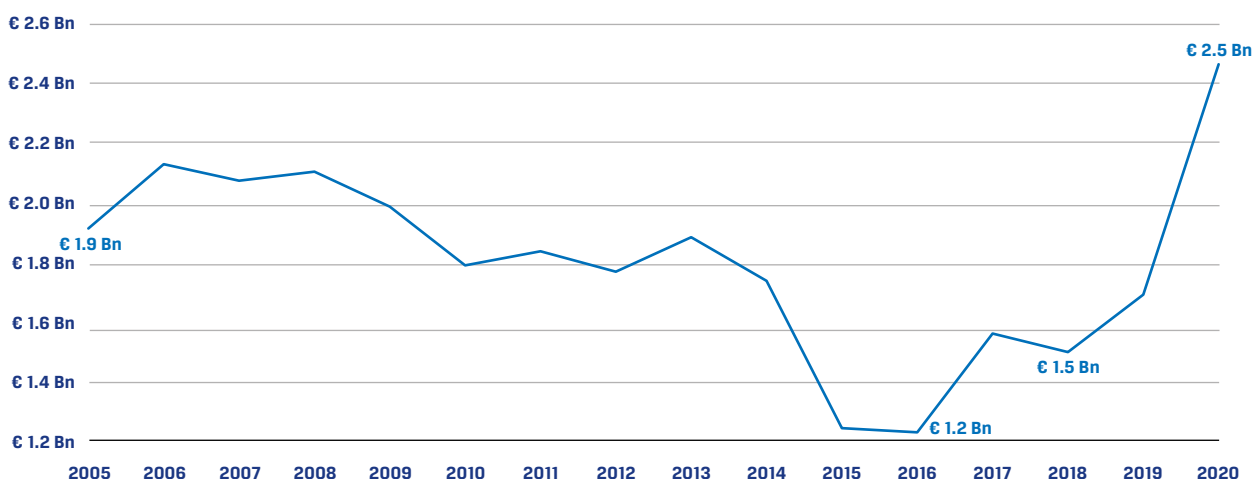


In 2020, 3 MS spent more than 35% of their total equipment procurement with other EU MS while 5 MS did so in 2019. In 2020 and 2019 additional 2 MS allocated more than 20% of their equipment procurement spending to European collaborative projects.

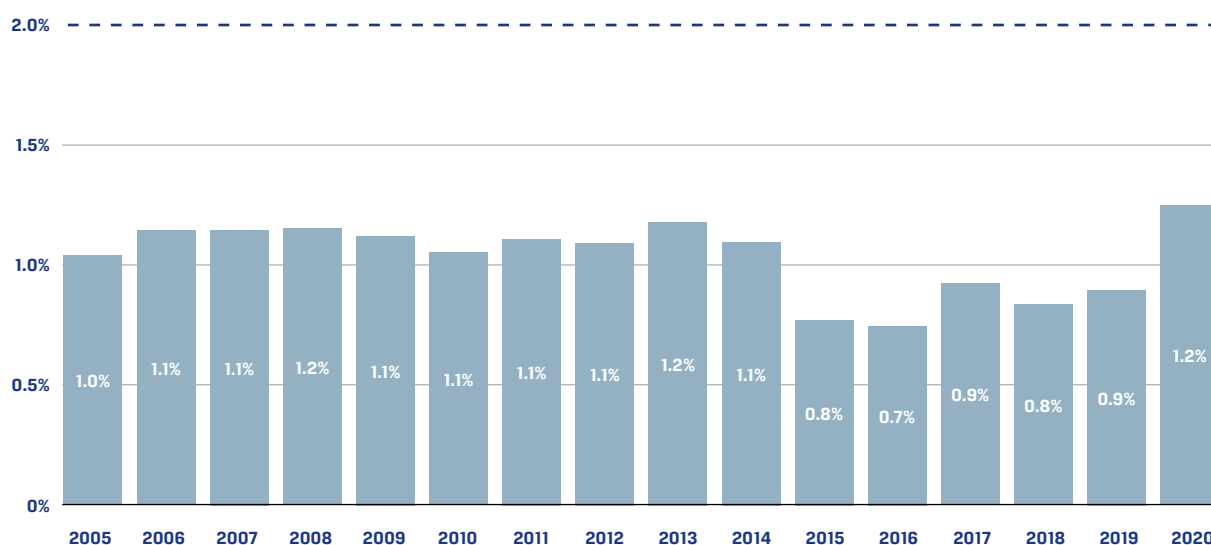
# Defence Research & Technology

In 2020, defence Research and Technology (R&T) spending amounted to €2.5 billion. This corresponds to an increase by 46% compared to 2019 spending levels. This is the highest amount registered by EDA since the Agency started collecting data in 2005 and the first time since 2008, that defence R&T spending reached above €2 billion (Figure 12). It is worth noticing that the share allocated to defence R&T expenditure as percentage of total defence expenditure reached above 1% for the first time since 2014. Overall, MS allocated 1.2% of their total defence outlays to defence R&T spending. This is the highest share recorded by EDA since 2005 (Figure 13). The increase in defence R&T is mainly driven by 2 MS which both raised defence R&T spending above 2% of their total defence expenditure and together provide more than 90% of the increase in defence R&T.

**FIGURE 12. DEFENCE R&T EXPENDITURE (CONSTANT 2020 PRICES)**



**FIGURE 13. DEFENCE R&T AS % OF TOTAL DEFENCE EXPENDITURE**



Even though MS still fall short of collectively achieving the benchmark of spending 2% of their total defence expenditure on defence R&T, which is also a commitment under PESCO, some progress has been achieved in comparison to 2019. In 2020, 2 MS reached the benchmark and one additional MS spent more than 1.5% of its total defence expenditure on defence R&T. Hence, compared to 2019, a positive trend is visible with regards to the achievement of the collective benchmark by individual MS (Figure 14). Nevertheless, 6 MS decreased defence R&T expenditure in 2020 compared to 2019. The overall positive trend on Defence R&T could be seen as an early sign of efforts to implement the CARD Report recommendation on increasing the share of R&T related expenditure within defence budgets in order to strengthen European technological development and resilience, but such trend requires consolidation over the in-coming years. Continued investment into defence R&T that substantiates the recent positive trend is therefore imperative to develop the cutting-edge defence capabilities that MS need and to ensure the EU's credibility as a security provider.

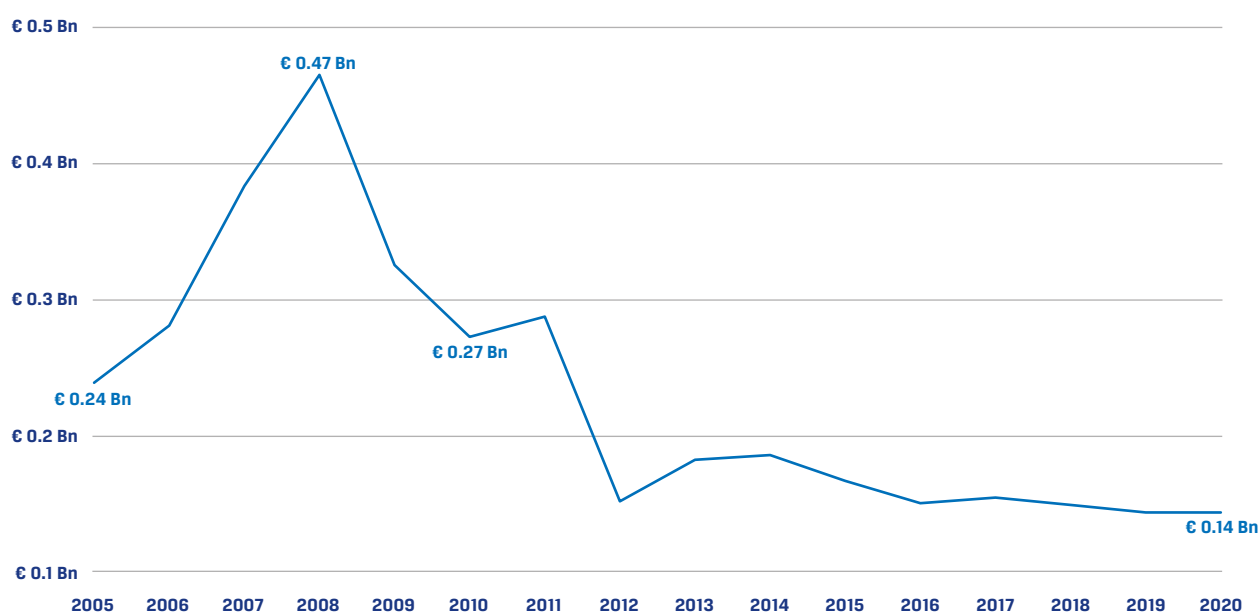
**FIGURE 14. EVOLUTION OVER TIME OF MEMBER STATES ACHIEVING THE BENCHMARK ON DEFENCE R&T**



# European Collaborative Defence R&T<sup>4</sup>

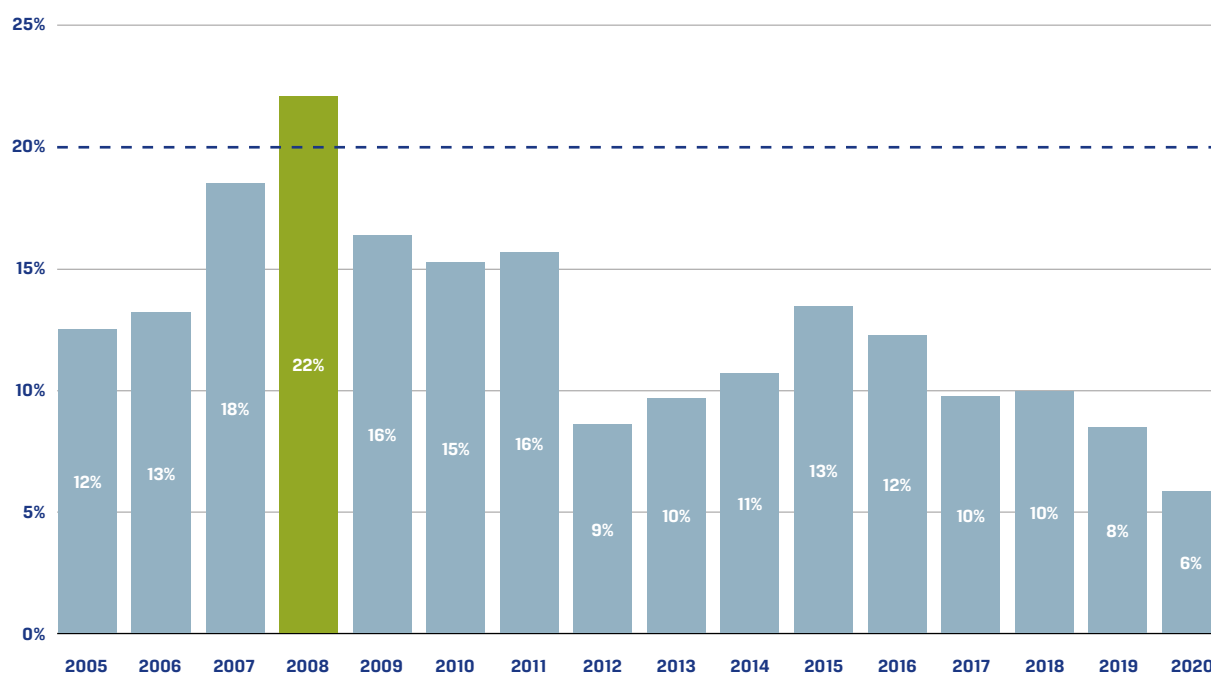
The trend to run defence projects predominantly nationally, rather than collaboratively, applies to the area of defence R&T too. In 2020, MS spent €143 million on defence R&T projects in cooperation with other EU MS. This constitutes a marginal decrease compared to 2019 by 0.02%. Since 2016, spending on European collaborative defence R&T has been largely flat and on a slightly decreasing trend since 2018 (Figure 15). As a result, MS do not collectively achieve the benchmark of spending 20% of their total defence R&T expenditure for European collaborative defence R&T projects. In 2020, MS only spent 6% of their total defence R&T expenditure in cooperation with other MS. This is the lowest share of European collaboration measured by EDA since the launch of the defence data collection in 2005 (Figure 16).

**FIGURE 15. EUROPEAN COLLABORATIVE DEFENCE R&T EXPENDITURE (CONSTANT 2020 PRICES)**



The low overall share of R&T dedicated to European collaborative projects is – at least partially – caused by the increase in total defence R&T expenditure even if collaborative R&T projects are expected to increase in parallel. In the in-coming years, MS could use the available funds at the EU level through the EDF to increase cooperation on defence R&T projects in a European framework and to reduce the current fragmentation of the European defence capability landscape.

4. The data regarding European collaborative R&T is not collected and provided by MS in a regular manner, thus considerations on trends are more difficult to elaborate and may not reflect the entire picture. In 2020, only 15 MS provided data on this indicator.

**FIGURE 16. EUROPEAN COLLABORATIVE DEFENCE R&T AS % OF TOTAL DEFENCE R&T**

Despite the overall decrease in the share invested into European collaborative defence R&T projects, 6 MS already achieve the 20% benchmark individually. 3 of those MS spend more than half of their defence R&T expenditure in a European collaborative framework. In comparison, in 2019, 5 MS allocated more than 20% of their total defence R&T expenditure to European collaborative R&T projects.

## Conclusion

2020 saw defence expenditure and investment continue to grow despite the COVID-19 pandemic and the associated negative economic effects. In particular, the strong increase in defence R&T spending is a positive sign for the long term and an essential cornerstone for the development of cutting-edge European defence capabilities. At the same time, collaborative European projects did not benefit from the increase in defence expenditure and investment yet and MS allocated the large share of their spending to national defence capability projects. As a result, MS fell further behind achieving the benchmarks on European collaborative defence equipment procurement and European collaborative defence R&T, which decreased to a new lowest level in 2020. With the launch of the EDF in 2021, MS would now make larger use of the European defence initiatives to reverse this trend, boosting collaborative projects and reducing the current fragmentation of the European defence capability landscape in the years to come.



**European Defence Agency**

Rue des Drapiers 17-23  
B-1050 Brussels - Belgium

[www.eda.europa.eu](http://www.eda.europa.eu)



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