

DEFENCE DATA 2020-2021

Key findings and analysis



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Introduction

The European Defence Agency (EDA) has been collecting defence data on an annual basis since 2006, 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 its "Defence data" booklets and on its website¹.

The 2005 data has been collected during the pilot exercise, which included only a limited number of indicators. Complete datasets are available since 2006, based on the revised list of indicators, including the four collective benchmarks for investment, approved by the Agency's Ministerial Steering Board in November 2007. EDA compiled the 2021 defence data figures through the 2022 PESCO National Implementation Plans, the 2021/2022 Coordinated Annual Review on Defence (CARD) Information, and individual updates by Member States.

All data is collated ("total incorporates 26 EDA Member States"), and it has been rounded. Defence expenditure figures are provided in constant 2021 prices, in order to take inflation into account and allow for a comparison across years².

Main results

In 2021, total defence expenditure of the 26 EDA Member States amounted to **€214 billion, marking the seventh year of consecutive growth**. A record level of **24%, or €52 billion, was allocated to defence investments**. There is overall a strong prioritisation of off-the-shelf equipment procurement in most MS while less resources are dedicated to defence research and development. This could be further reinforced by the current security context. Moreover, even though spending for research and technology reached an all-time high, with expenditure totalling €3.6 billion and bringing MS closer to the 2% benchmark, the new record level of spending is largely driven by two Member States. Finally, **collaborative European defence spending remains below the benchmarks** despite an increase in spending on European collaborative defence equipment procurement and R&T projects. To avoid further fragmentation of the EU defence landscape and foster coherence, Member States need to use the announced budget increases efficiently and **coordinate their defence plans** through joint European defence R&D and acquisition programmes.



€214 billion

Total defence expenditure of the 26 EDA Member States

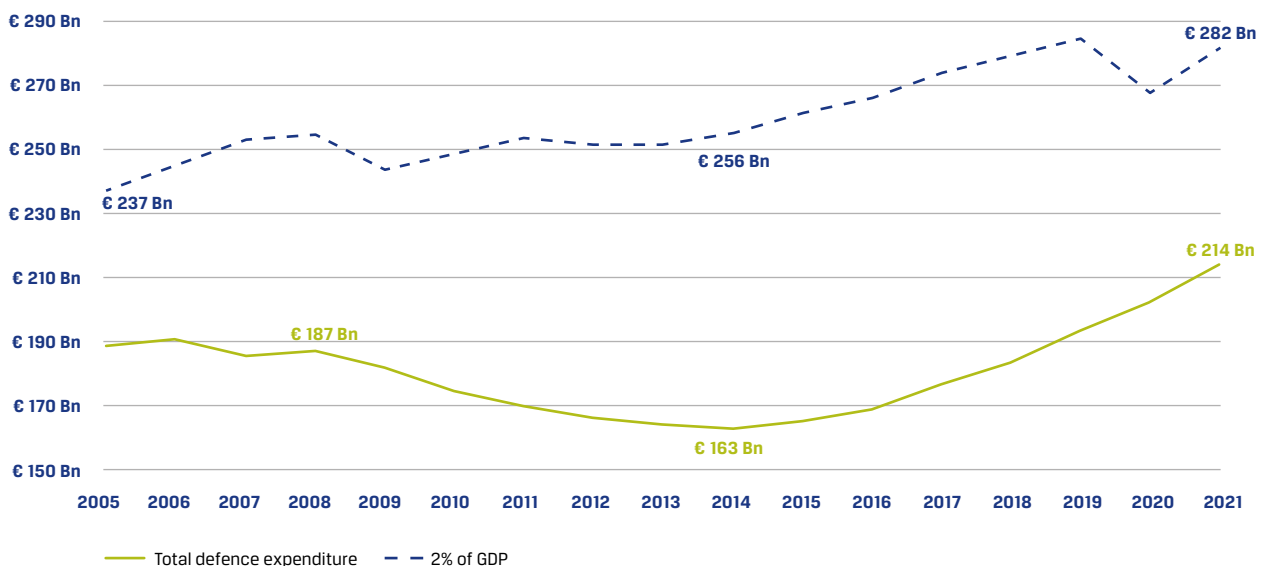
1. EDA Defence Data Portal: <https://eda.europa.eu/publications-and-data/defence-data>

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

Total defence expenditure

In 2021, defence expenditure of the 26 EDA MS continued growing for the seventh year in a row, amounting to €214 billion (Figure 1). As percentage of the gross domestic product (GDP), defence expenditure reached 1.5%, a similar level as in 2020. In real terms, defence expenditure grew by 6% compared to 2020 which is the strongest yearly growth rate since the rebound started in 2015. Thus, defence expenditure resisted the economic impact caused by the COVID-19 pandemic. Compared to the historic low reached in 2014, defence expenditure increased by almost €52 billion, or 32% in real terms. However, MS would still need to spend €68 billion more to reach the guideline of spending 2% of GDP on defence.

Figure 1. Total defence expenditure and 2% of GDP guideline (constant 2021 prices)



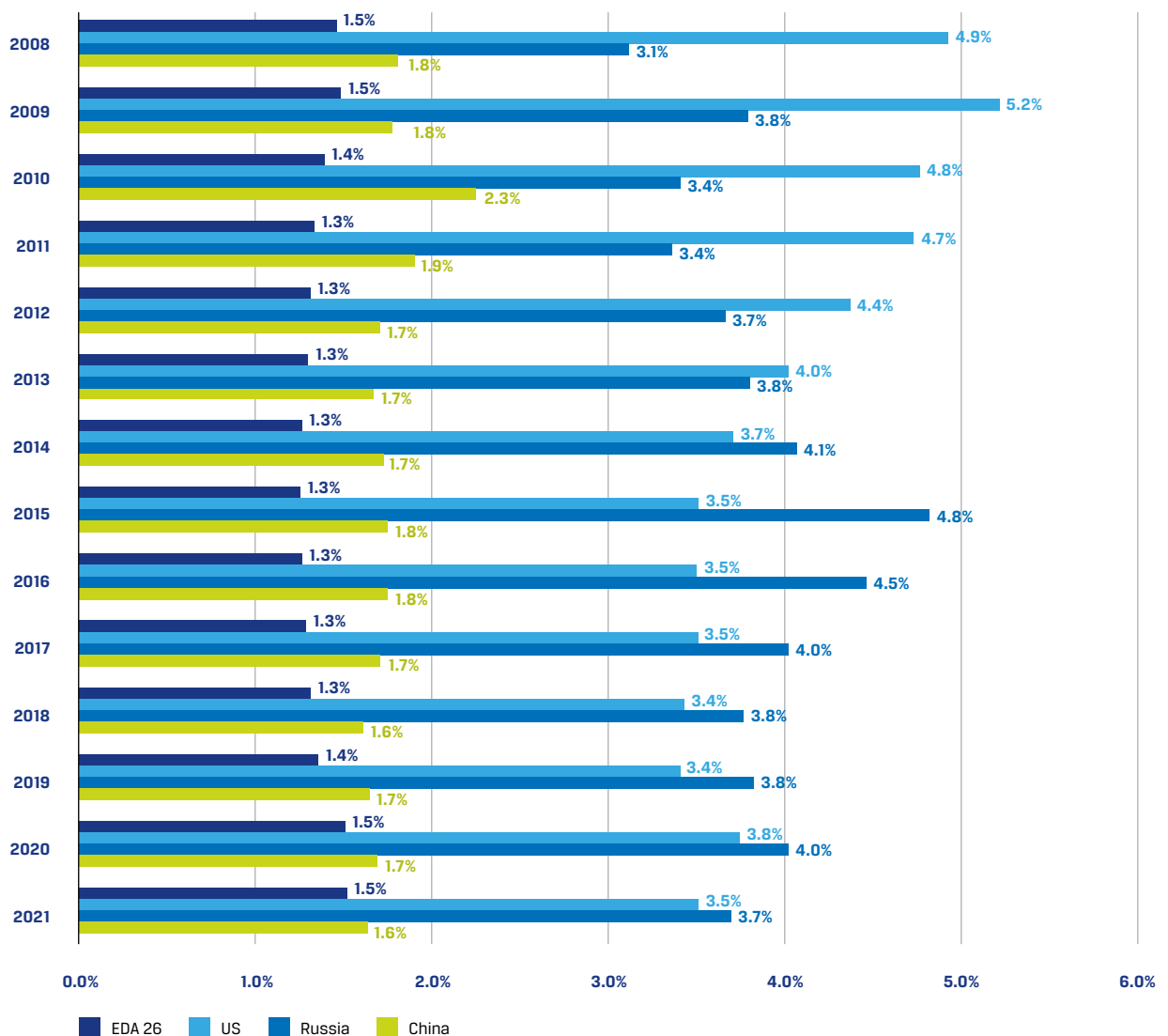
Member States' announcements following Russia's war of aggression against Ukraine signal that the increase in expenditure is likely to continue in the years ahead as the 2022 CARD Report indicates³. This development is positive and can help to compensate for the under-expenditure between 2009 and 2018. At the same time, there is a risk that MS will direct the additional funding to procurement conducted on a national basis without considering their impact on the EU defence capability landscape. To avoid further fragmentation of the EU defence landscape, the increase in defence budgets should be used more efficiently through a coordinated European approach. The expected economies of scale resulting from such an approach could help to reduce the impact of soaring inflation rates on MS' acquisition programmes which may suffer from heavy price increases.

3. 2022 CARD Report: <https://eda.europa.eu/docs/default-source/eda-publications/2022-card-report.pdf>

In comparison to the EDA's 26 MS, other international players, namely the United States (US), Russia and China, have consistently allocated a larger share of their economic resources to the defence sector. The share of the GDP allocated by the 26 EDA MS, wavered between 1.3% and 1.6% over the past two decades. As a reference, over the same period, US defence expenditure varied between 3.4% and 5.2% of GDP whereas Russia outpaced other international players since 2014 with total defence expenditure amounting up to 4.8% of GDP. China's defence expenditure ranged only between 1.6% to 2.3% of GDP, however, this needs to be seen in light of the rapidly growing and large Chinese economy.

In absolute figures, the US was by far the largest defence spender in 2021 (€686 billion), followed by China (€241 billion), the 26 EDA MS (€214 billion) and Russia (€56 billion). In Europe, socio-economic considerations and relative stability in the EU's neighbourhood (sometimes referred to as the peace dividend) diverted spending away from defence since the end of the Cold War. As a consequence, European armed forces suffered in terms of their equipment and readiness which now needs to be rapidly reversed in face of Russia's war of aggression against Ukraine. Figure 2 presents the differences in the share of GDP allocated to defence⁴.

Figure 2. Total defence expenditure as % of GDP



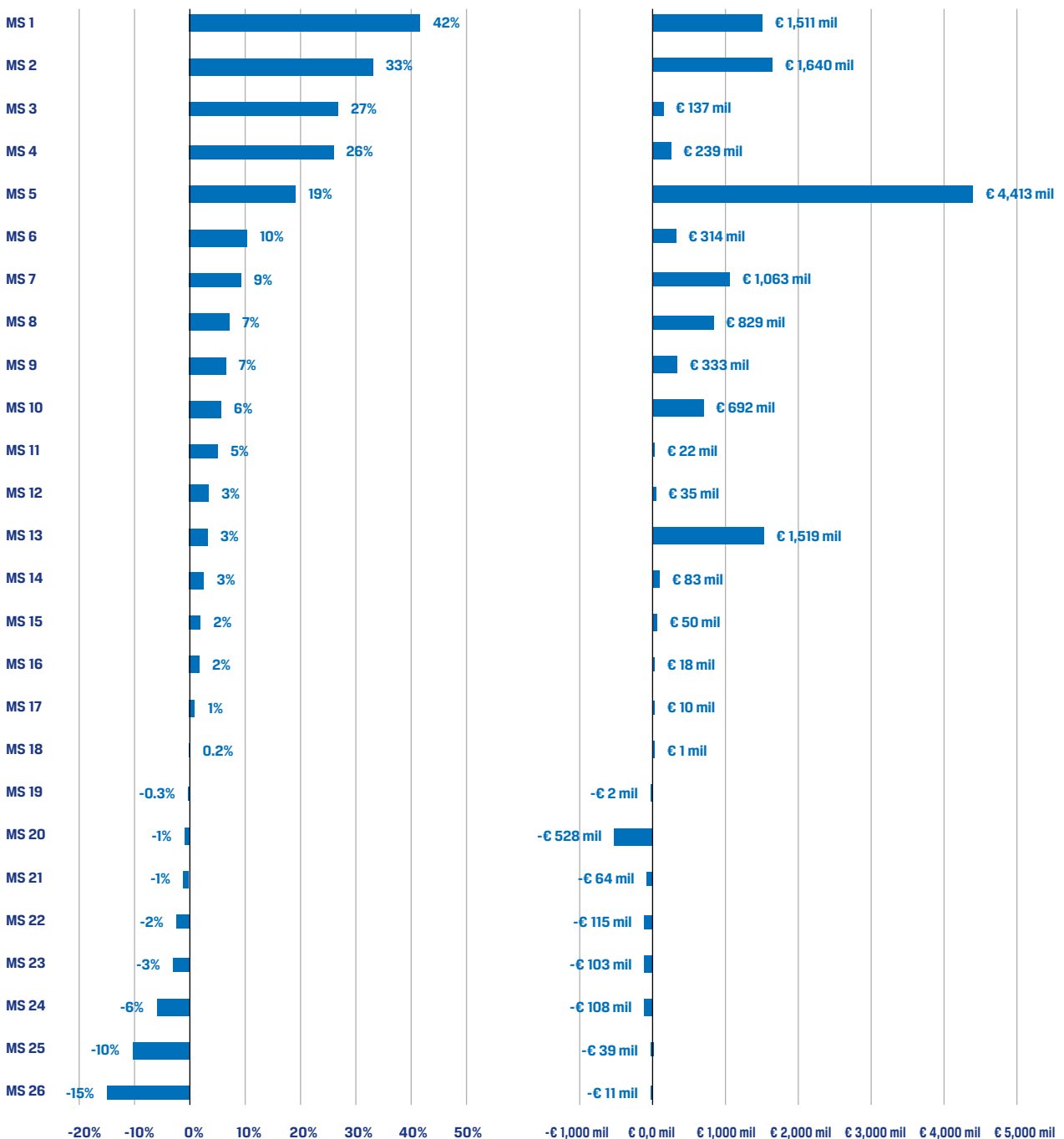
4. The data for the United States, Russia and China is taken from the IISS Military Balance + online database.

In 2021, 18 MS increased their defence expenditure compared to 2020, while eight MS decreased defence spending. Six MS raised their defence expenditure by more than 10%. The highest increase in defence expenditure amounted to more than €4 billion in absolute and 42% in relative terms. Reversely, the highest decrease totalled €528 million in absolute terms and 15% in relative terms (Figure 3).

Figure 3. Change in total defence expenditure by Member States, 2020-2021

Change in total defence expenditure in percent, 2020-2021

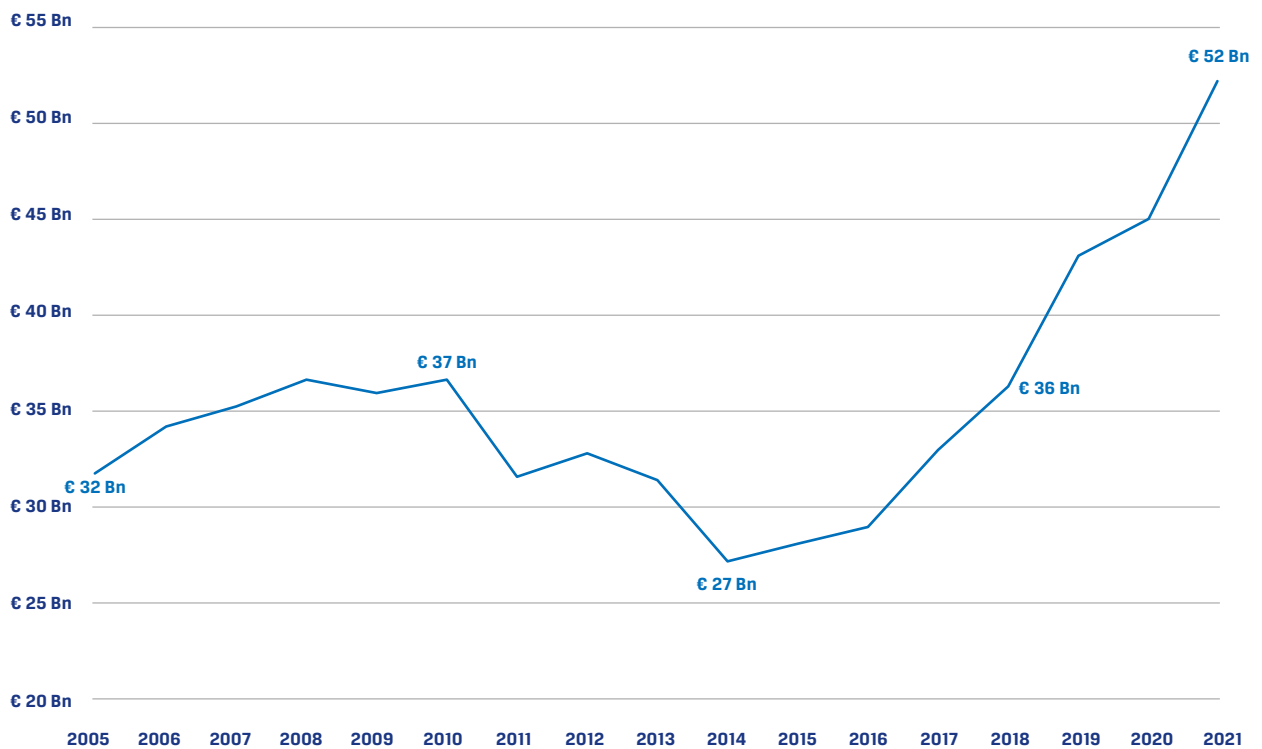
Change in total defence expenditure in million €, 2020-2021




Defence investment

Defence investment relates to the procurement of defence equipment and research and development (R&D). In 2021, defence investments grew by 16% compared to 2020, totalling €52 billion (Figure 4). The strongest growth rate was measured in 2019 when defence investment increased by 19% compared to 2018. The continued increase in defence investments will be needed to equip European militaries with high-end capabilities and close long-standing capability gaps.

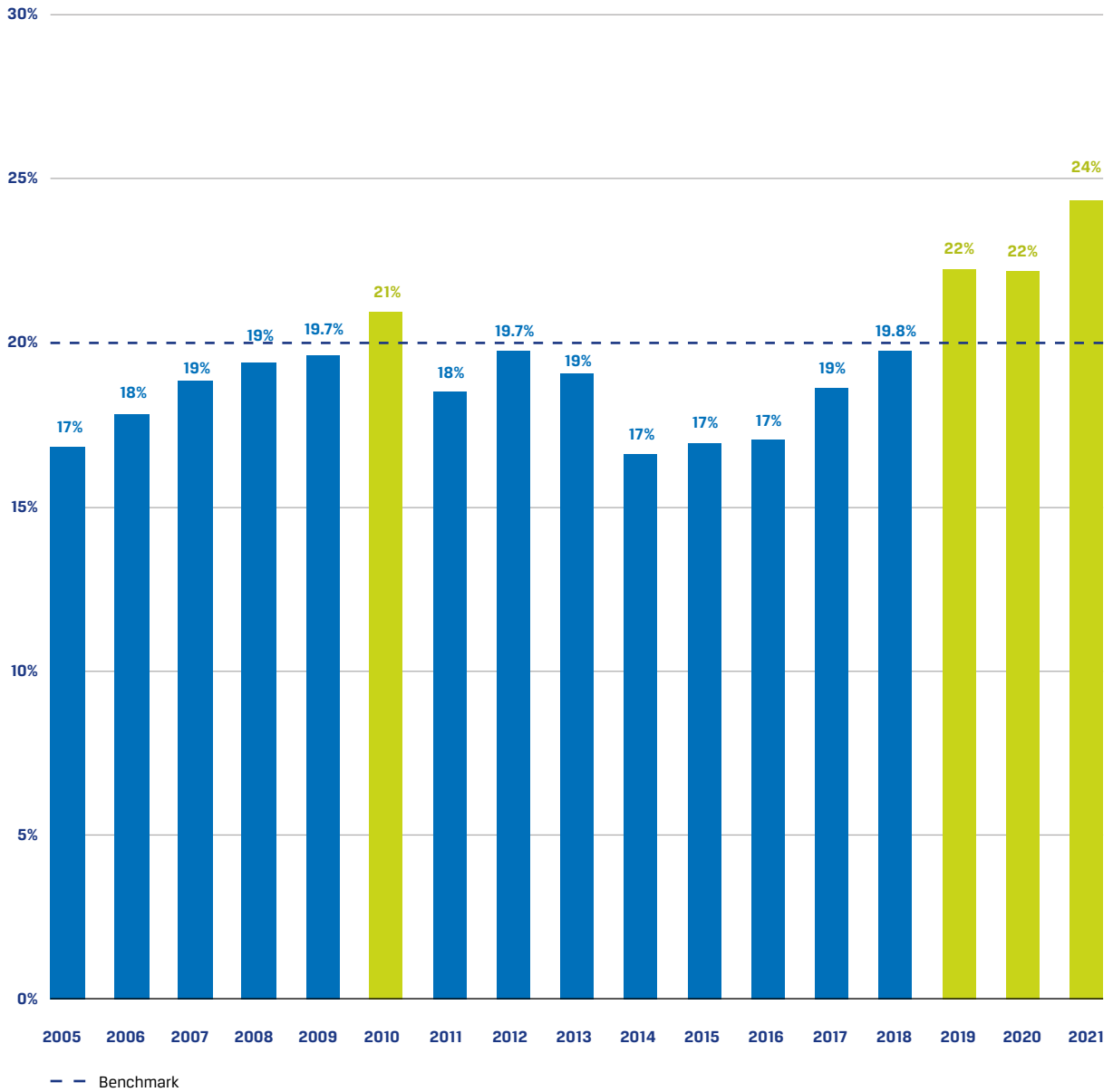
Figure 4. Defence investment expenditure (constant 2021 prices)




+16%
 Defence investments
 compared to 2020

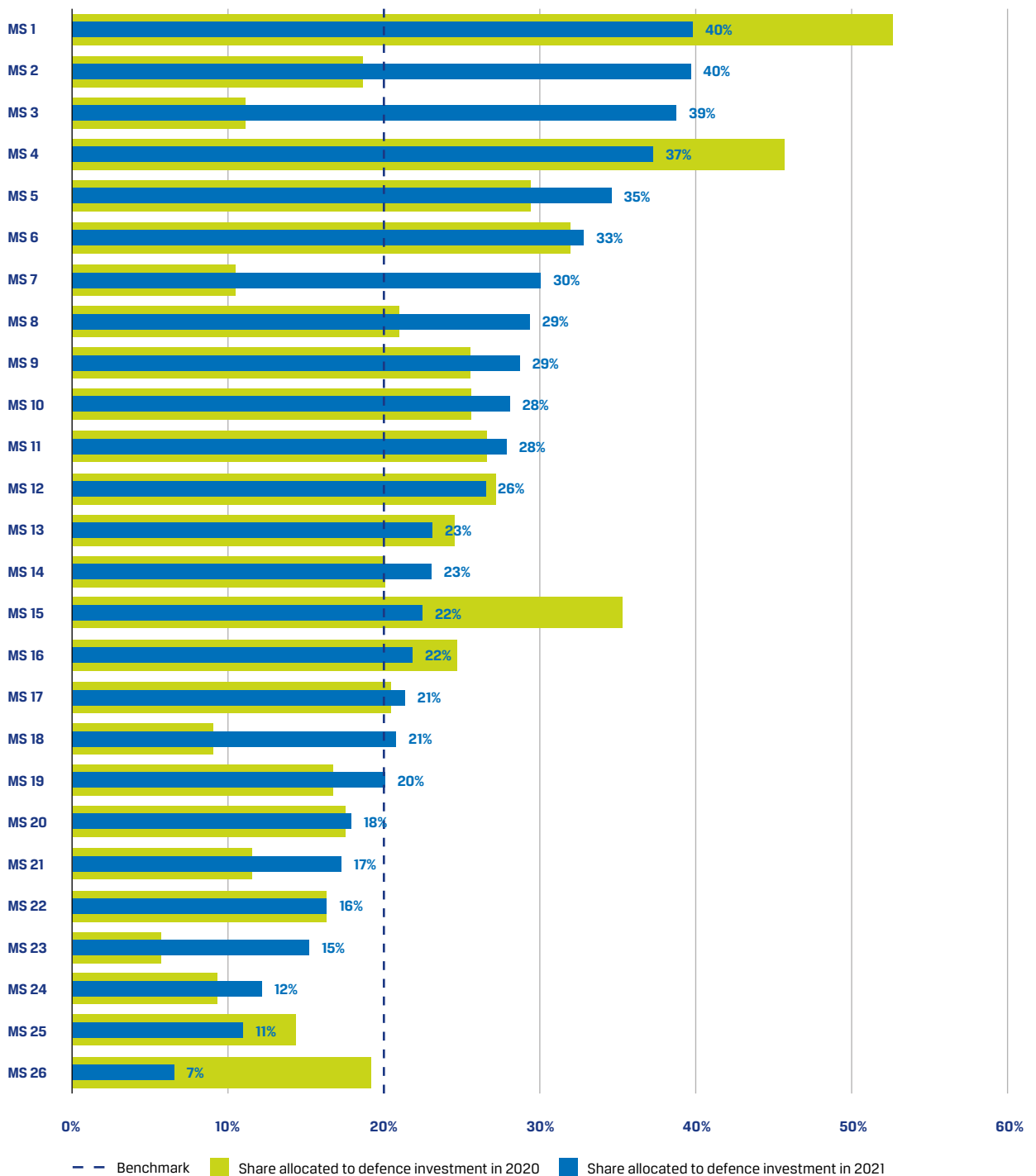
In 2021, MS continued meeting the 20% defence investment benchmark, for the third year in a row (Figure 5), and the share of total defence expenditure allocated to defence investments reached a record high of 24%.

Figure 5. Defence investment as % of total defence expenditure



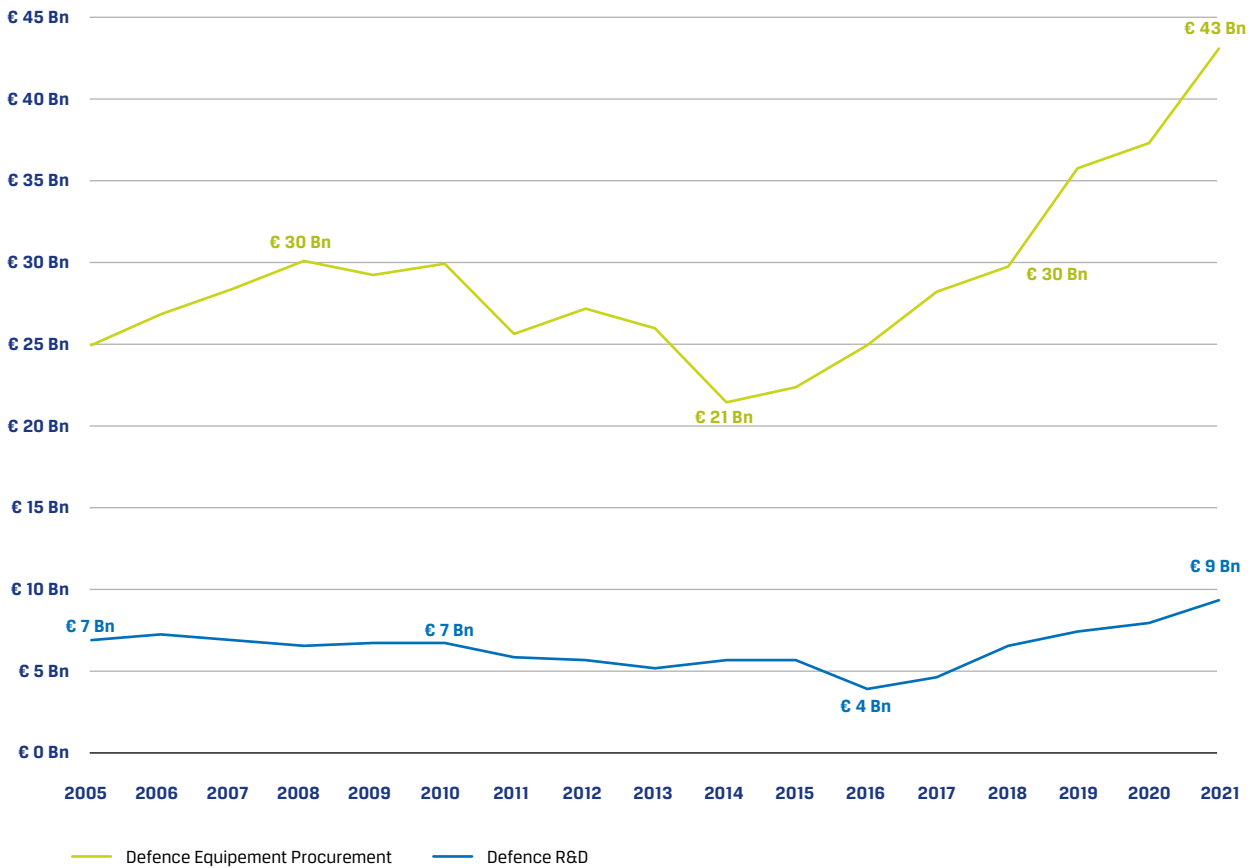
19 MS achieved the 20% defence investment benchmark in 2021. This is the highest number of MS reaching the benchmark since EDA started collecting data and includes five more MS than in 2020. Only one MS spent less than 10% of total defence expenditure on defence investment (2020: three MS). Overall, 17 MS increased the share allocated to defence investment in 2021. Only three MS decreased the share dedicated to defence investment while spending below the 20% benchmark (Figure 6).

Figure 6. Member States achieving the 20% benchmark on defence investment in 2020 and 2021



As in previous years, MS dedicated a large part of investments (82%) to the procurement of new equipment while only a minor part (18%) was dedicated to defence R&D. Compared to 2020, investments into the procurement of new equipment increased by 16%, amounting to €43 billion in 2021. Spending on defence R&D reached €9 billion in 2021, up by almost 20% compared to 2020 (Figure 7).

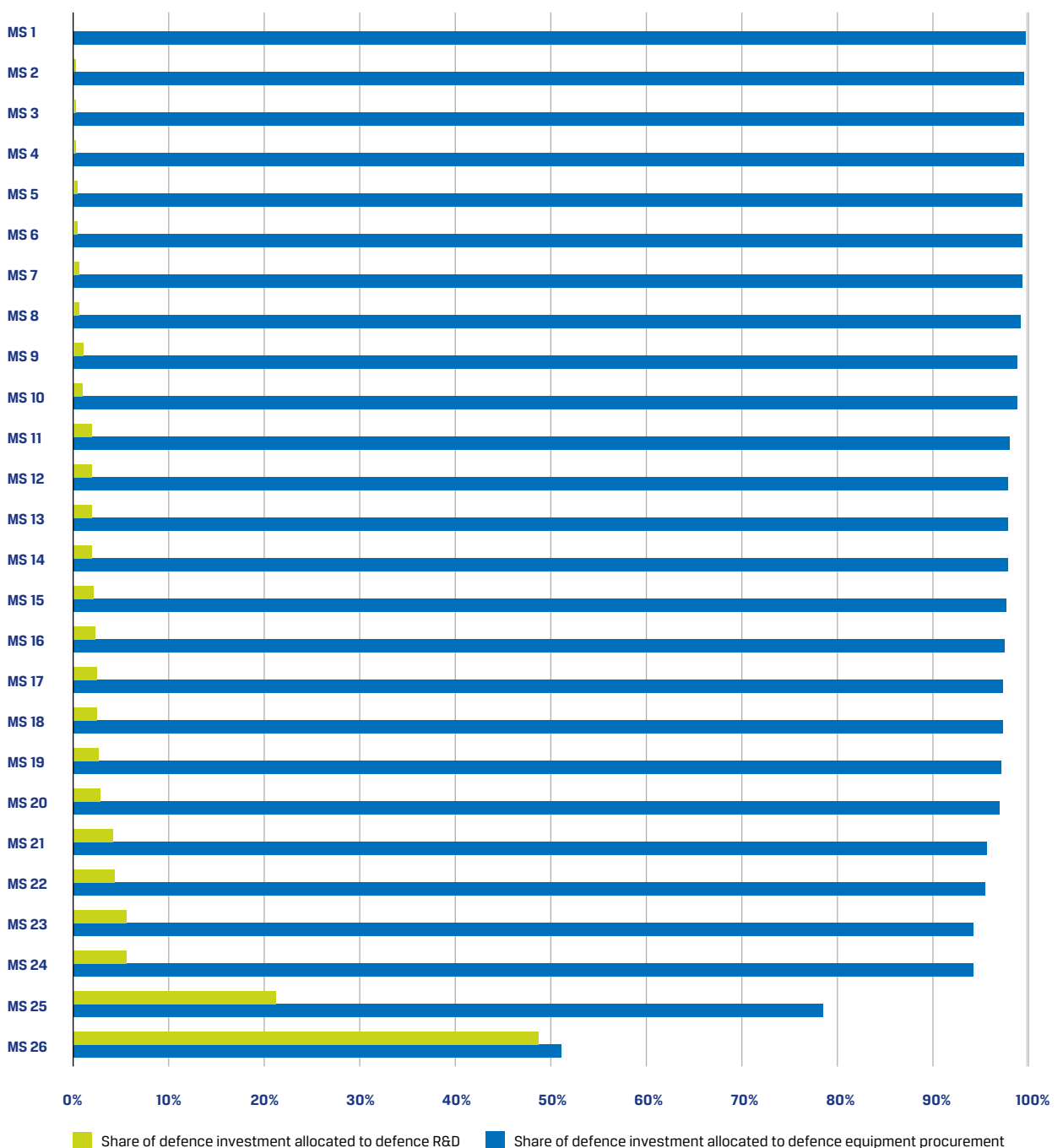
Figure 7. Defence equipment procurement expenditure and defence R&D expenditure (constant 2021 prices)



82%
MS investments
in procurment of
new equipment

At the national level, there is a strong difference in the share MS allocate to defence equipment procurement and defence R&D. Almost all MS dedicate more than 90% of their defence investment to the procurement of new equipment. Only two of the 26 EDA MS spent more than 20% of their defence investments on defence R&D (Figure 8). Hence, there is overall a strong prioritisation of off-the-shelf equipment procurement in most MS which could be further reinforced by the current security context. If off-the-shelf procurements are conducted in an uncoordinated manner, this could negatively impact the coherence of the EU defence landscape and curtail European cooperation in the future.

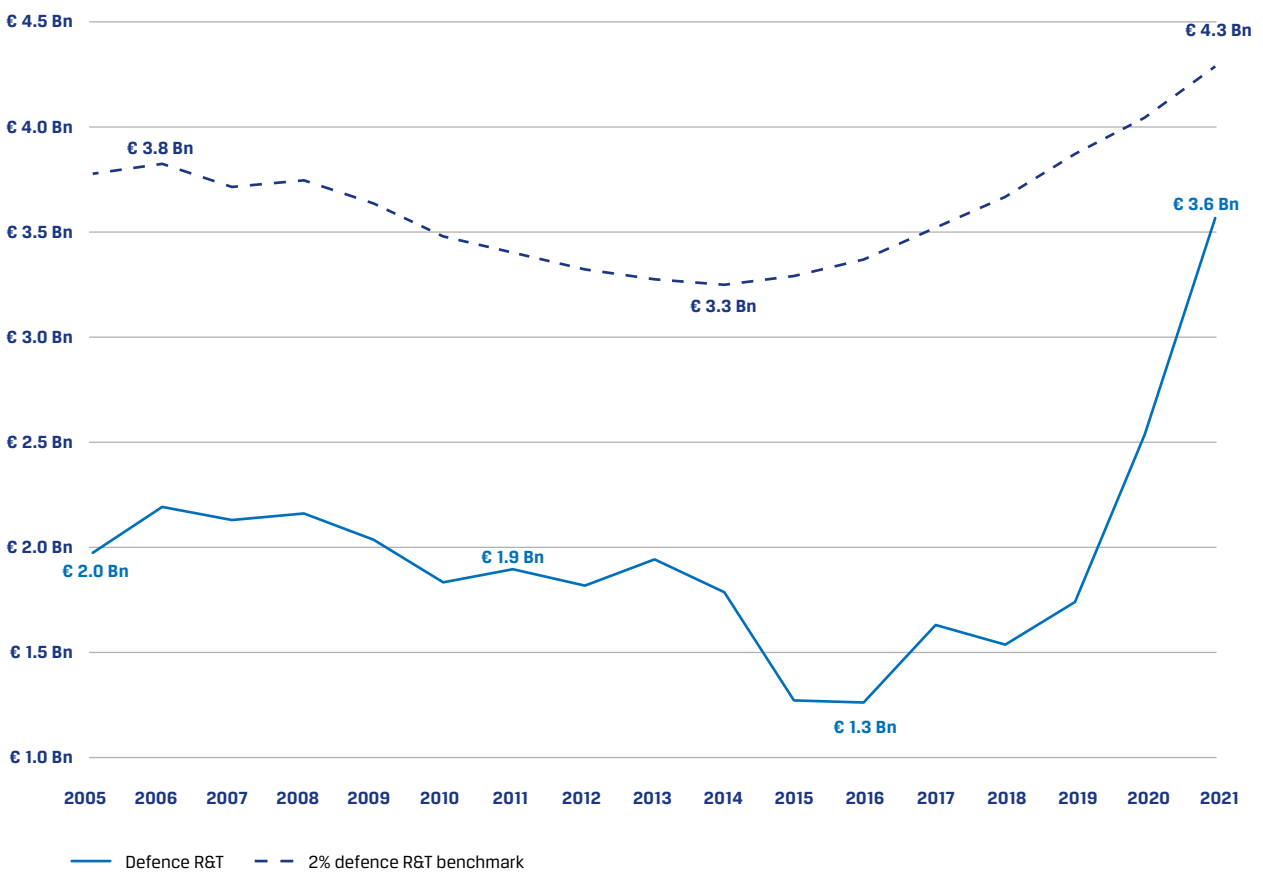
Figure 8. Share of defence investment allocated by Member States to defence equipment procurement and defence R&D



Defence R&T

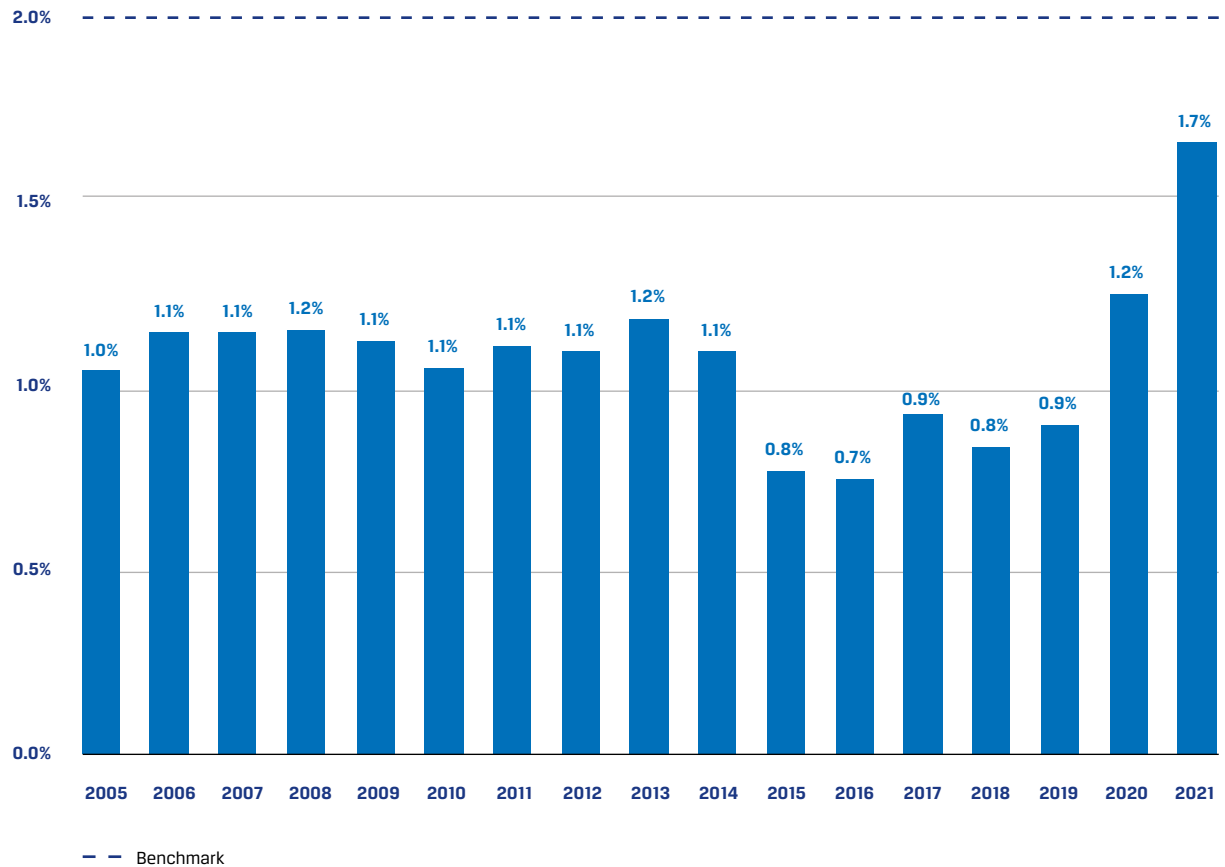
In 2021, MS allocated €3.6 billion to defence Research and Technology (R&T) expenditure which is a new record level of spending. Compared to 2020, defence R&T spending increased by 41%, which is slightly lower than in 2020 (46%). Compared to the historic low in spending reached in 2016, expenditure for defence R&T almost tripled (Figure 9). To reach the 2% R&T benchmark, MS would need to spend €725 million more.

Figure 9. Defence R&T expenditure and 2% R&T benchmark (constant 2021 prices)



The share allocated to defence R&T expenditure increased simultaneously. In 2021, MS allocated 1.7% of their total defence expenditure to defence R&T. Therefore, they moved closer to the benchmark of spending 2% but still do not reach it (Figure 10).

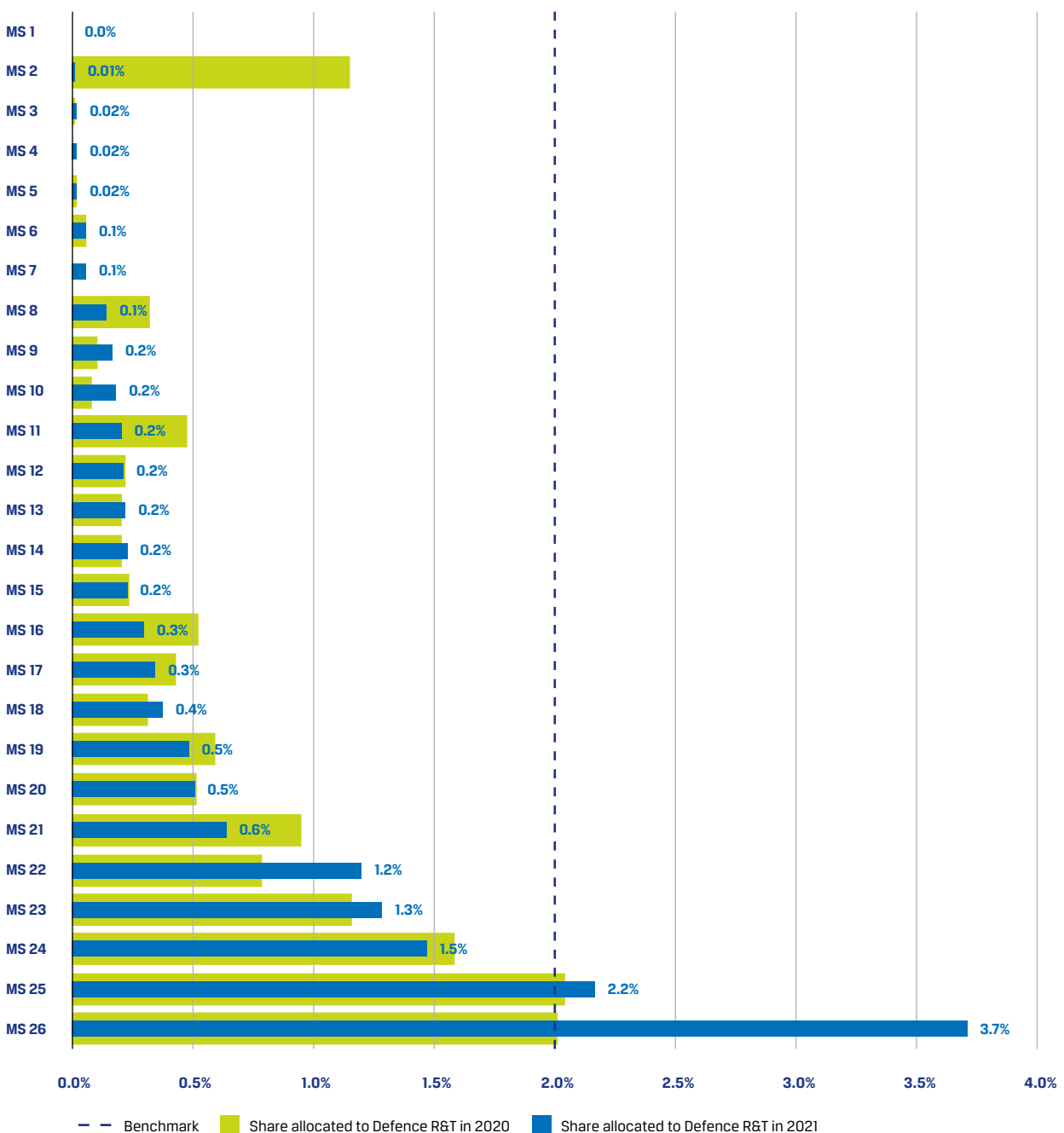
Figure 10. Defence R&T as % of total defence expenditure




€ 3.6 billion
 MS investments in
 R&T in 2021

The increase in defence R&T expenditure is a positive sign and necessary to develop cutting-edge defence capabilities and prepare the future of the EU defence landscape. However, the new record level of spending is largely driven by two MS, which are responsible for more than 80% of the total defence R&T expenditure. Like in 2020, only two MS reach the benchmark. One of those MS spends more than 3.5% of total defence expenditure on defence R&T (Figure 11). Moreover, 13 MS increased, 12 MS decreased, and one MS maintained the share allocated to defence R&T compared to 2020 figures. For European defence to be at the cutting edge of preparing for future conflicts and capabilities, a larger number of MS would need to increase R&T spending at a faster rate than their total defence expenditure.

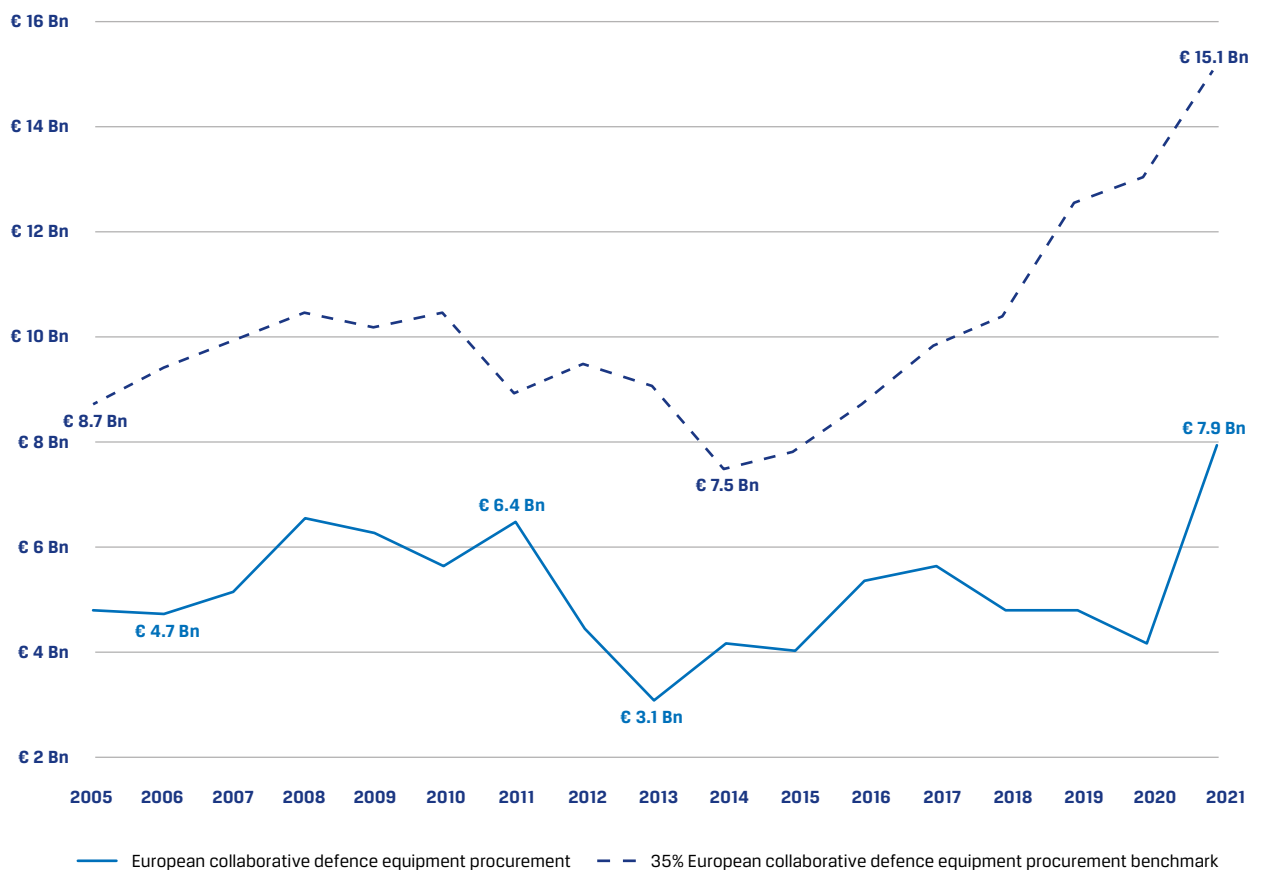
Figure 11. Share allocated by Member States of their total defence expenditure to defence R&T in 2020 and 2021



European collaborative defence equipment procurement⁵

In 2021, MS allocated €7.9 billion to European collaborative defence equipment procurement projects. This is the highest value ever recorded by EDA. Compared to 2020, the figure almost doubled. The increase is partially caused by a higher number of MS providing figures for European collaborative defence equipment procurement (2021: 14 MS, 2020: 11 MS). To reach the 35% European collaborative defence equipment procurement benchmark, MS would need to spend around €7 billion more (Figure 12).

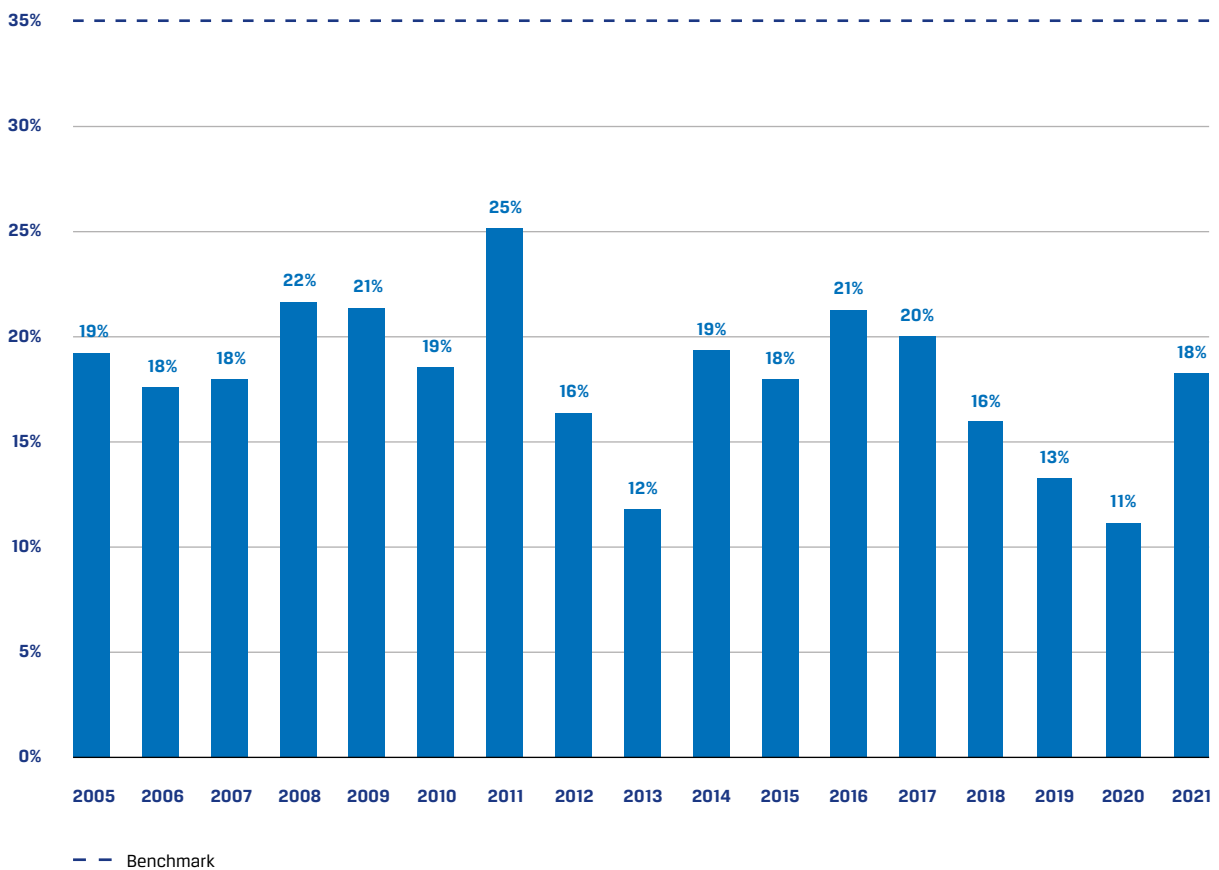
Figure 12. European collaborative defence equipment procurement expenditure and 35% European collaborative defence equipment procurement benchmark (constant 2021 prices)



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

The share allocated to European collaborative defence equipment procurement as percentage of total defence equipment procurement increased as well. In 2021, MS allocated 18% of their total defence equipment procurement expenditure to European collaborative defence equipment procurement projects (Figure 13). Despite the increase in overall spending, MS did not meet the 35% benchmark in 2021. As expenditure for the procurement of new equipment is expected to rise in the coming years, as a reaction to Russia's war of aggression against Ukraine, it will be important to allocate adequate resources to European collaborative defence equipment procurement projects to avoid uncoordinated acquisition programmes and to foster the coherence of the EU defence landscape.

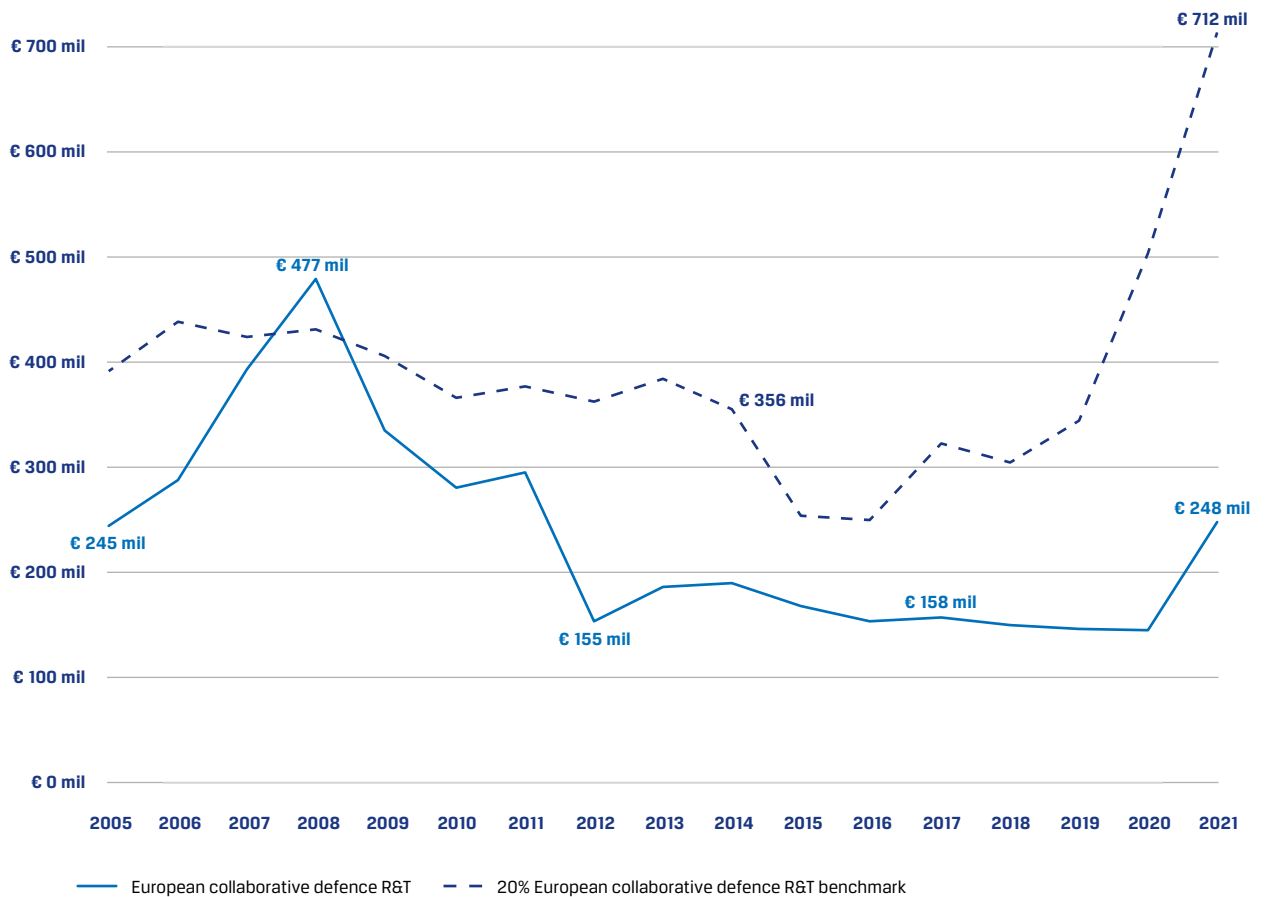
Figure 13. European collaborative defence equipment procurement as % of total defence equipment procurement



European collaborative defence R&T⁶

European collaborative defence R&T expenditure reached €248 million in 2021. After several years of decrease, this is the first time that spending for European collaborative defence R&T grew again more significantly with a growth rate of almost 70% compared to 2020. However, expenditure for European collaborative defence R&T is only roughly half of what MS allocated to European collaborative defence R&T projects in 2008 (Figure 14). To reach the 20% European collaborative defence R&T benchmark, MS would need to spend €464 million more.

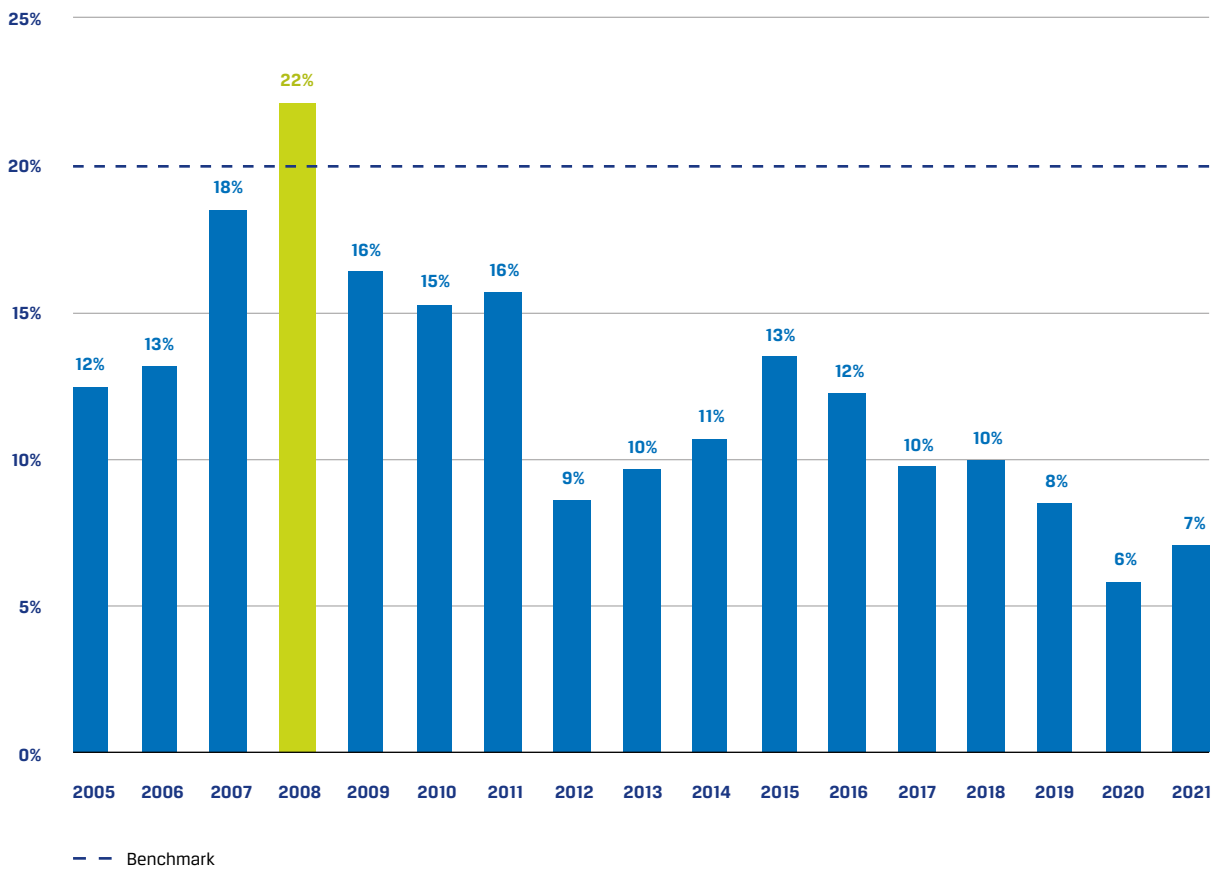
Figure 14. European collaborative defence R&T expenditure and 20% European collaborative defence R&T benchmark (constant 2021 prices)



6. Since 2012, a deeper assessment of European collaborative defence R&T is not possible because only a limited number of MS provided this data.

The share allocated to European collaborative defence R&T expenditure as a percentage of total defence R&T expenditure remains limited. In 2021, MS spent 7% of their total defence R&T expenditure on European collaborative defence R&T projects. This is higher than in 2020 (6%) but corresponds to the second lowest share ever recorded by EDA and implies that MS do not achieve the 20% collective benchmark (Figure 15). Even though the low share allocated to European collaborative defence R&T projects is partially caused by the overall increase in total defence R&T expenditure, MS should jointly invest in cutting-edge defence technologies to prepare a coherent future EU defence landscape and spend defence R&T budgets more efficiently.

Figure 15. European collaborative defence R&T as % of total defence R&T



Conclusion

The continued increases in defence expenditure and defence investment are a positive signal and provide MS with the opportunity to close long-standing capability gaps. At the same time, MS need to use the announced budget increases efficiently and coordinate their defence plans through joint European defence R&D and acquisition programmes if a further fragmentation of the EU defence landscape is to be avoided and coherence fostered. Moreover, while current capability gaps need to be filled swiftly to replenish stocks and improve combat readiness, an adequate share should be devoted to joint defence R&T projects which are necessary to prepare for the future of the EU defence landscape and to strengthen the EU's strategic autonomy.

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