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Introduction

The European Defence Agency (EDA) collects defence data on an annual basis, and has done so 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 provide the data. EDA acts as the custodian of the data and publishes the aggregated figures in its 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 2017-2019 defence data figures were compiled by EDA through the 2019/2020 Coordinated Annual Review on Defence (CARD) Consolidated Information. The Member States' updates of this data was used in the CARD framework to support a comprehensive analysis of budgetary trends as well as the evolution of Member States' collaborative spending.

All data is collated ("total incorporates 26 EDA Member States"), and it has been rounded. Following the exit of the United Kingdom (UK) from the European Union, this year's figures no longer include the defence expenditure data of the UK. Defence expenditure figures are provided in constant 2019 prices, in order to take inflation into account and allow for a comparison across years ¹.





Total Defence Expenditure as

% of GDP 2019



Increase in Defence Expenditure in 2019 compared to 2018

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

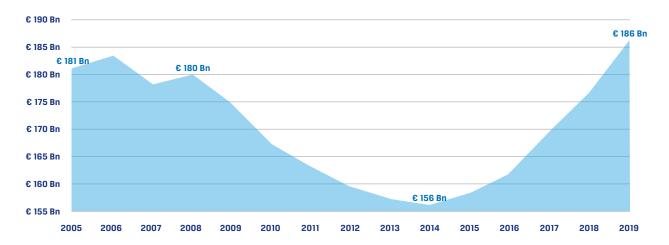
Total Defence Expenditure

Defence expenditure by the 26 EDA Member States amounted to €186 billion in 2019. This corresponds to 1.4% of EDA Member States' gross domestic product (GDP) and represents 2.9% of total government expenditure. In 2019, therefore, defence expenditure continued its **increase for the fifth consecutive year** (Figure 1). Compared to 2018, defence expenditure increased by 5%, which constitutes the **strongest increase** since the general trend of defence spending reversed in 2015.

In total, 23 Member States raised defence expenditures compared to 2018, out of them 4 by more than €1 billion. The growth rates in defence expenditures vary strongly among Member States and range between 0.01% and 125% (Figure 2). Only 3 Member States decreased their defence expenditures in 2019 compared to 2018. As a result, in 2019, defence expenditure finally surpassed 2007 spending levels.

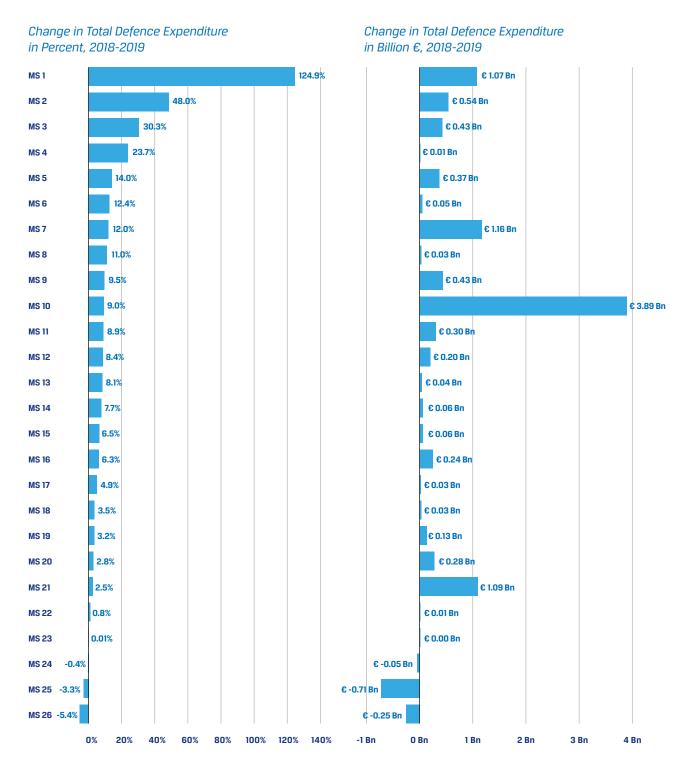
Even though the overall European trend on defence expenditure is evolving positively, **defence budgets remain vulnerable** and are possibly exposed to budgetary consequences of the current COVID19 crisis. The pandemic triggered European economies to fall by more than 7% in 2020, causing the deepest recession in the EU's history². While early predictions assume that Europe may return to economic growth in 2021, defence budgets may suffer severe cuts. Indeed, as a result of the 2008 financial crisis, defence expenditures of Member States shrank by around three times as much as GDP. Similar Member States' financial policy would significantly jeopardise Europe's rebound on defence expenditure. The recent establishment of the EU defence initiatives, the Permanent Structured Cooperation (PESCO), CARD and the European Defence Fund (EDF) would facilitate mitigation of a possible negative impact of the pandemic thanks to the regular review in the CARD framework and the fulfilment of the PESCO commitments, notably on European collective benchmarks. The possible financial support provided by the European Commission could encourage Member States to pursue their collective efforts in the defence sector despite financial difficulties and thus would contribute to avoid replicating the uncoordinated defence cuts the EU faced after the 2008 financial crisis.





See: European Commission (2020) Autumn 2020 Economic Forecast: Rebound interrupted as resurgence of pandemic deepens uncertainty, available
at: https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2021. In comparison, during the 2007/2008 financial crisis, economic output fell
by 'only' 4%. See: Jorge Valero (2020) Coronavirus will trigger the deepest recession in EU history, available at: https://www.euractiv.com/section/economic-governance/news/coronavirus-will-trigger-the-deepest-recession-in-eu-history/

FIGURE 2. Change in Total Defence Expenditure by Member States, 2018-2019



Defence Investment

Investments into defence equipment procurement and research and development (R&D) have **benefitted strongly** from the increase in total defence expenditures since 2015. In 2019, defence investments by EDA Member States amounted to €41.4 billion, which corresponds to an **increase of 19%** compared to 2018 spending levels (Figure 3).

Taking 2014 as a reference for defence investment, spending in 2008 was 35% higher (before the financial crisis) than in 2014 and reached again a similar level in 2018 with an additional increase in 2019. Since 2015/2016, defence investment has been growing significantly faster than total defence expenditure (Figure 4).

As a result, in 2019, Member States **reached the benchmark** of spending at least 20% of total defence expenditure on defence investment for the first time since 2010. In line with the overall trend, the number of Member States reaching this benchmark has significantly increased since 2014. Whereas in 2014, only 6 Member States spent 20% or more of their total defence expenditure on defence investment, this number increased to **15 Member States in 2019** (Figure 5 and 6). In 2019, 4 Member States spent between 42% and 60% of their total defence expenditure on defence investment. Progress also has been achieved compared to 2007, when 8 Member States achieved the collective benchmark.

Both, defence equipment procurement and defence R&D have suffered significantly from the cuts following the 2008 financial crisis. However, defence R&D expenditure decreased for a much longer timespan than defence equipment procurement, reaching its lowest level in 2016. In spite of the recovery of defence R&D spending, reaching in 2019 a similar level to 2007, the procurement of new equipment has benefitted the most from the overall increase in defence investments. Since 2014, defence equipment procurement has increased by 67% while spending on defence R&D has increased at a slower pace, by 30%, over the same timeframe (Figure 7). Moreover, in 2019, 83.1% of defence investments were spent by Member States to procure new equipment, whereas funding for defence R&D remained limited to 16.9%. Even if the funds under the European Defence Industrial Development Programme (EDIDP) were added (€243.25 million in 2019), the share increases only marginally to 17.4%. Additional **efforts by Member States are required,** making use of collaborative opportunities identified in the CARD framework to safeguard and further develop European industrial know-how.



FIGURE 3. Defence Investment (constant 2019 prices)

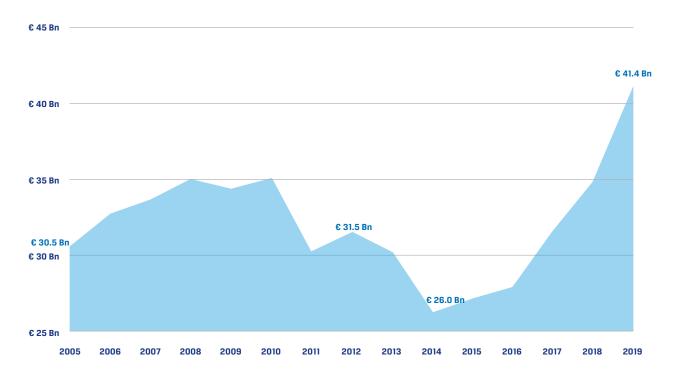


FIGURE 4. Evolution of Total Defence Expenditure and Defence Investment, taking 2014 as reference year

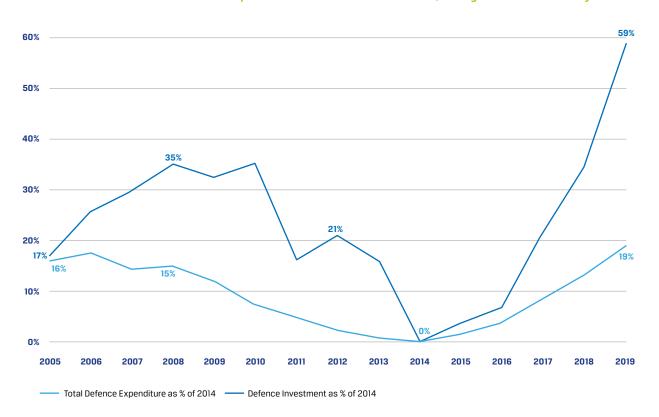


FIGURE 5. Defence Investment as % of Total Defence Expenditure

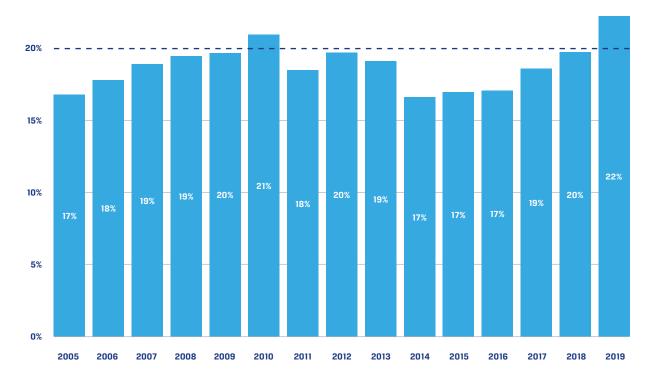


FIGURE 6. Evolution over time of Member States achieving the Benchmark on Defence Investment



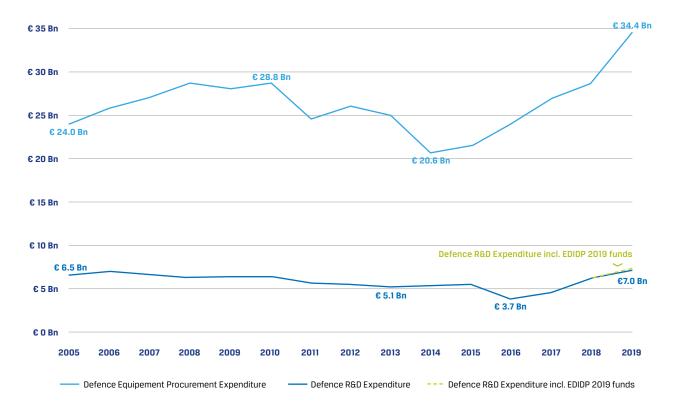


FIGURE 7. Defence Equipment Procurement Expenditure and Defence R&D Expenditure (constant 2019 prices)



In 2019, 83.1% of defence investments were spent by Member States to procure new equipment, whereas funding for defence R&D remained limited to 16.9%.

Defence Research & Technology

In 2019, defence Research and Technology (R&T) spending amounted to €1.7 billion. Just as defence R&D, defence R&T has suffered from a lengthy decrease in spending since 2008 and only started to increase again more significantly in 2017. **Although defence R&T increased by 13%** compared to 2018, expenditures for defence R&T still remain roughly €380 million below 2007 levels (Figure 8).

As a result, funding allocated to defence R&T **remains insufficient** and Member States fall collectively short of reaching the collective benchmark of spending 2% of their total defence expenditure on defence R&T. In 2019, Member States allocated 0.9% of their total defence expenditure to defence R&T, compared to 0.8% in 2018 and 0.7% in 2016 (Figure 9).

In line with the overall trend on R&T spending, there is only very limited progress by individual Member States in achieving the benchmark. In 2019, no Member State achieved the benchmark, only 4 Member States spent more than 1% of their total defence expenditure on defence R&T. This indicates that the main effort seems to rest with filling existing capability gaps and not with preparing for future state of the art capabilities. In comparison, in 2016, 3 Member States spent more than 1% of their total defence expenditure on defence R&T. This falls short of spending levels in 2007 when 2 Member States achieved the benchmark and 3 more Member States spent more than 1% of their total defence expenditure on defence R&T (Figure 10). Even though some marginal progress has been made since 2017, no significant positive trend of increase could be substantiated during the last years. In order to reverse this trend and to strengthen the European Defence Technological and Industrial Base (EDTIB) and the EU's strategic autonomy, Member States are invited to "increase the share of R&T related expenditure within defence budgets as a part of collective benchmark implementation, to deliver on cutting-edge defence capabilities at national and EU level including in a collaborative manner, supporting European technological development and resilience" as the recommendations of the 2020 CARD Report approved by the Ministers of Defence in late November 2020 state.



FIGURE 8. Defence R&T Expenditure (constant 2019 prices)

FIGURE 9. Defence R&T Expenditure as % of Total Defence Expenditure

2.0%

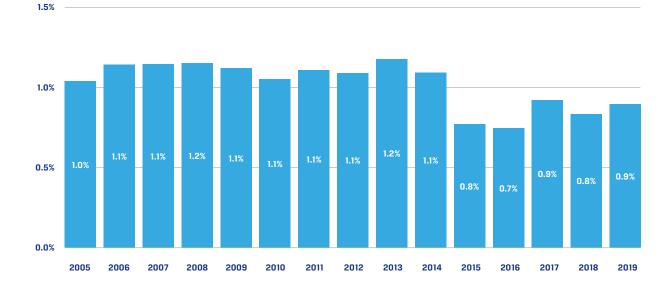


FIGURE 10. Evolution over time of the Member States achieving the Benchmark on Defence R&T Expenditure



European collaborative defence equipment procurement³

Since 2013, when the lowest level of European collaborative equipment procurement was recorded, Member States have more than doubled their spending on European collaborative equipment procurement. Yet, following record-high spending in 2017, **European collaborative defence equipment procurement has dropped again by 6%.** In 2019, Member States spent €7 billion on the procurement of new equipment in cooperation with other Member States (Figure 11). Even though cooperation could contribute to reduce the costs of procuring military equipment and help Member States to spend their defence budget more efficiently, cooperative spending remains low compared to the general increase in spending on defence equipment procurement.

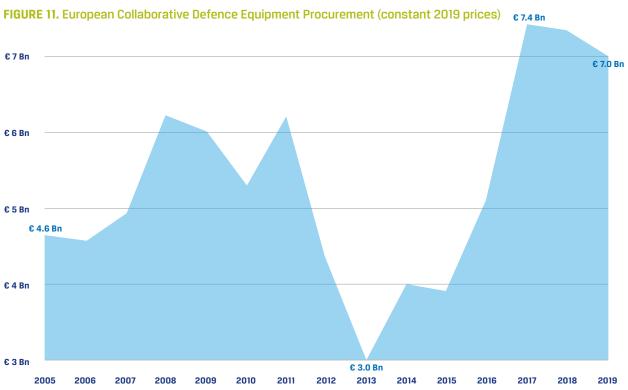
Member States **do not achieve the collective benchmark** of spending 35% of their total equipment procurement in a European framework. In 2019, Member States conducted 20% of their total equipment procurement in cooperation with other EU Member States. To reach the collective benchmark, Member States would need to spend roughly €5 billion more on cooperative defence equipment procurement, while keeping their total equipment procurement expenditure constant. Even though the share allocated from total defence equipment procurement to European collaboration is higher than it was in 2013 (12%), the share has decreased since 2017 (27%) (Figure 12). Thus, as a general trend, Member States continue to procure the large majority of their military equipment on a **national basis**. The European defence initiatives are too recent to have a visible effect on the achievement of the collective benchmarks and therefore further efforts are required to reverse this trend. A stronger commitment to collaborative projects as proposed in the CARD framework will help Member States to consolidate national capability profiles, while contributing to strengthen the coherence at the EU level and simultaneously achieving the European collective benchmarks in a stepwise manner.



In 2019, Member States spent €7 BILLION

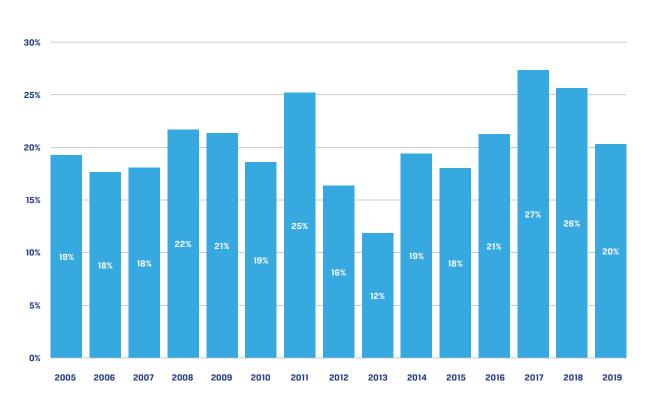
on the procurement of new equipment in cooperation with other Member States.

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



€ 3.0 Bn
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 201

FIGURE 12. European Collaborative Defence Equipment Procurement as % of Total Defence Equipment Procurement
35% -----

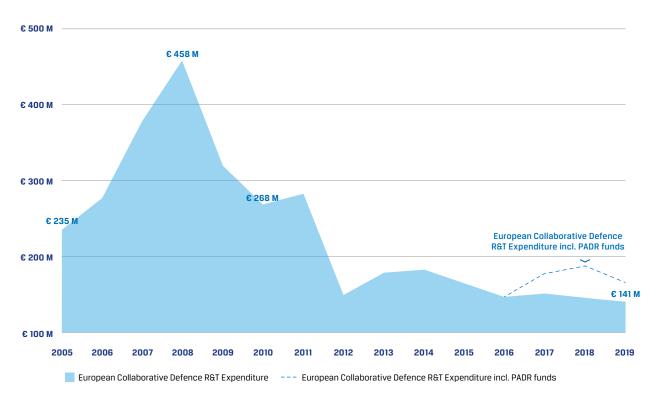


European Collaborative Defence R&T

Similar to the procurement of major equipment, defence R&T projects are predominantly conducted on a national basis, too. In 2019, Member States spent €141 million on defence R&T projects in cooperation with other Member States. This constitutes the **lowest level of collaborative spending** ever measured by EDA. Compared to 2008, when spending on European collaborative defence R&T was highest, expenditure decreased by roughly €320 million (Figure 13). The data regarding European collaborative R&T is not collected and provided by Member States in a regular manner, thus considerations on trends are more difficult to elaborate and may not reflect the entire picture ⁴.

As a result, Member States did not achieve the collective benchmark of spending 20% of their total defence R&T spending in a European framework. In 2019, Member States allocated 8.5% of their total defence R&T expenditure to collaborative R&T projects with other Member States. Whereas Member States reached the benchmark once in 2008, when they allocated 22% of defence R&T expenditure to European collaborative R&T projects, the share reached a record-low in 2019. Even if the funds under the Preparatory Action on Defence Research (PADR) were to be added, which allocated €25 million for European collaborative defence research programs in 2019, the share would only reach around 10% 5. Hence, Member States would need to spend around €190 million more in a cooperative manner, while keeping total defence R&T expenditure constant, to reach the 20% collective benchmark on European collaborative defence R&T (Figure 14).





^{4.} In 2019, only 12 Member States provided data on this indicator.

^{5.} As with European collaborative equipment procurement expenditure, a deep assessment of European collaborative defence R&T is limited due to the limited number of Member States providing this specific data.

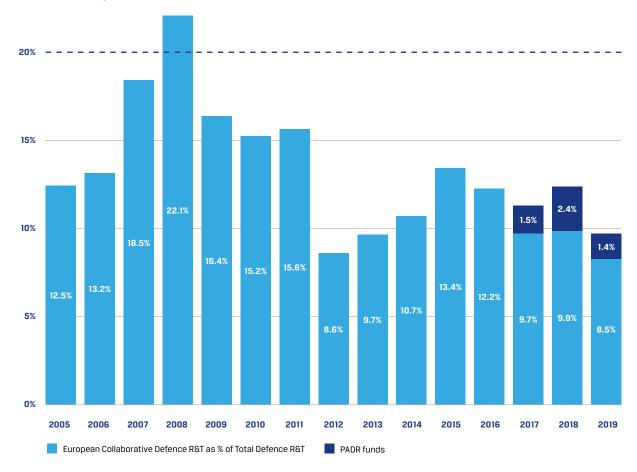


FIGURE 14. European Collaborative Defence R&T as % of Total Defence R&T

Conclusion

As analysed in the CARD framework, despite the positive trend on defence expenditure and defence investment over the last years, the trajectory remains fragile and needs to be further consolidated. Funding for defence R&D and in particular defence R&T remains critically scarce and collaborative projects rank low on Member States' priority list. The Member States should therefore make use of the recently established **EU defence initiatives** to **withstand the financial pressures** which may be posed by the **COVID19 crisis** by prioritising collaborative projects and investing into collaborative defence research and collaborative defence capability development, in line with the 2020 CARD Report recommendations approved by Defence Ministers. This could help to foster a coordinated approach among Member States and enhance cooperation in the EU framework, thus overcoming underinvestment in key areas which are essential for European defence and security.



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