

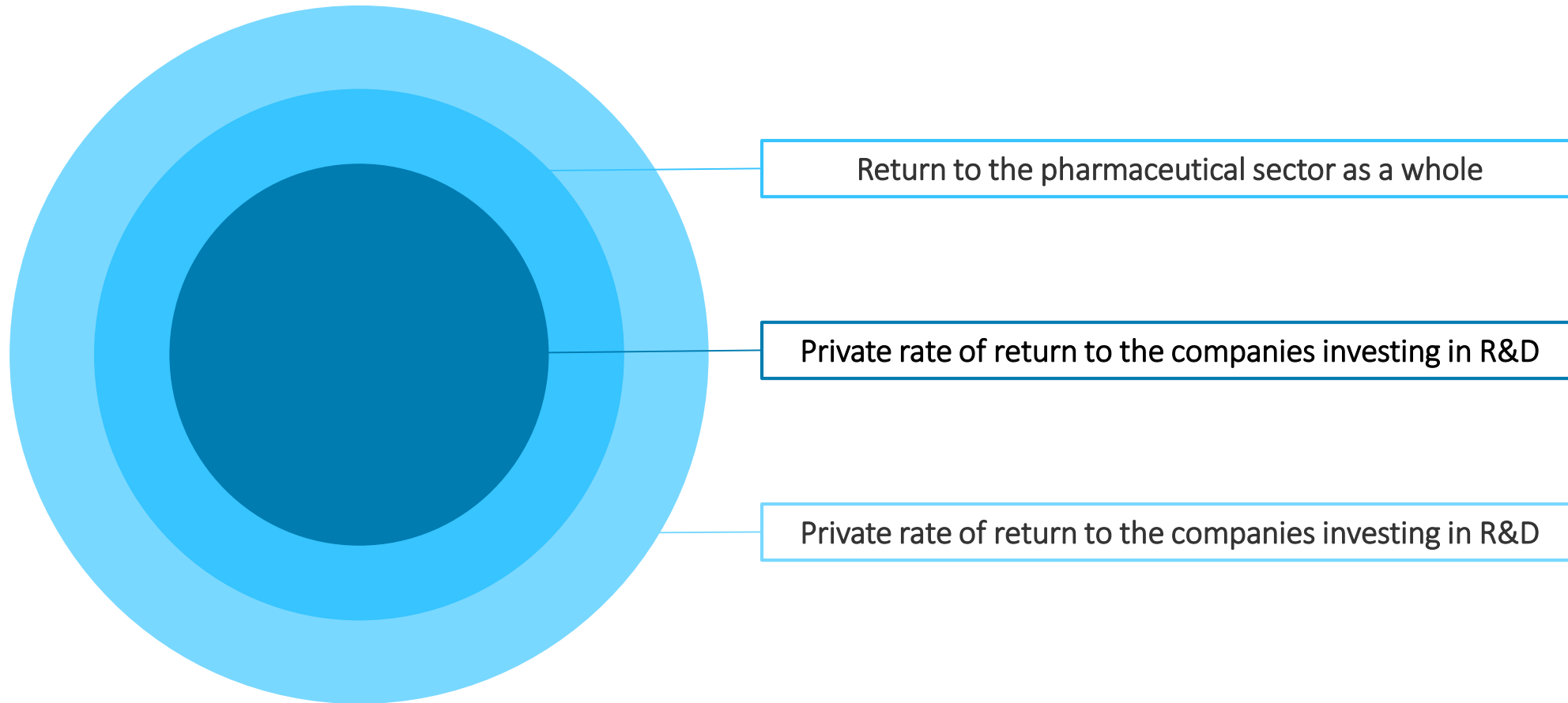


## Macroeconomic Impact of Clinical Trials in Greece

Council on Competitiveness, NKUA Event - INVESTING IN CLINICAL TRIALS

March 2021

## Impact of Clinical Trials | Conceptualizing the Effects

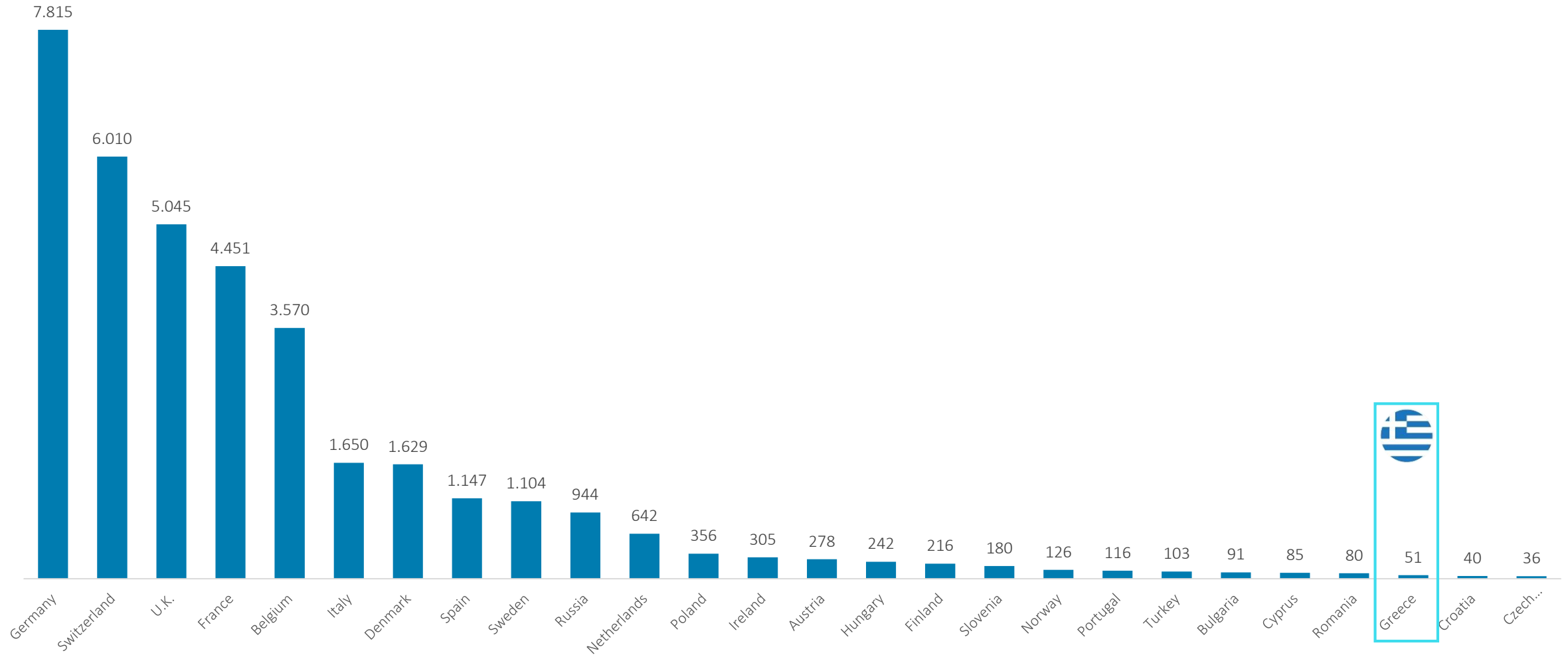


Sources: Hanney, S.R., Grant, J., Wooding, S. et al. (2004), Health Economics Research Group (2008).

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# Impact of Clinical Trials | R&D Spending Across Europe

Pharmaceutical R&D Spending in Selected European Countries 2018, in € million



Source: EFPIA 2020

# Impact of Clinical Trials | Reviewing the Evidence

## United Kingdom (2007-2017)

 **€112m investment** into the Oxford Biomedical Research Centers

Increased income in sectors below:  
(euro million)



 **476 FTE jobs created**  
**196 FTE** within the local economy

**Rate of Return**  
for every €1 of investment,  
additional €0.46 generated **46%**

## Turkey (2006-2010)

 **€96m Total Investment**  
(Sample of Academic & Industry-Sponsored Trials)

**14,370** patients treated  
cost-free through trials



**Average cost savings:**


 **€19,504** per patient  
**€280,266,784** treatment savings  
**€ 376,734,767** total impact

## Austria (2018)

 **€116m Total Investment**  
(Sample of Industry-Sponsored Trials)

**€144m Total Value Added**

 **€100m** cost savings for treatments covered by 463 trials  
**€37,068** Cost Savings per patient

**2,021 FTE Jobs created** 

**Rate of Return**  
for every €1 of investment,  
additional €0.95 generated **95%**

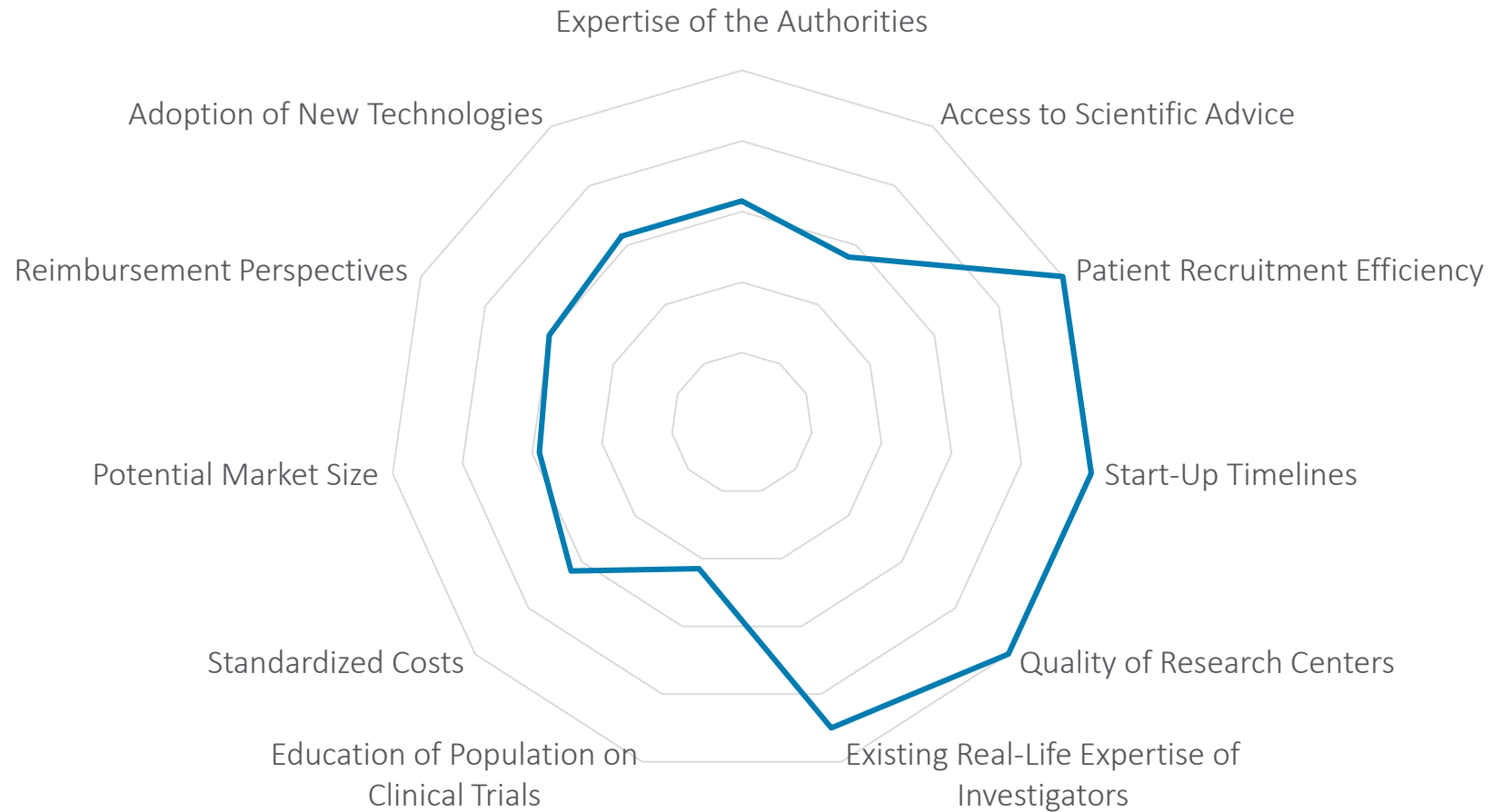
Note: Currencies converted to euro based on average exchange rate on year of article publication.

Sources: Smith J.B.E. et al. (2019) Koçkaya, G. et al. (2015), Walter E. et al. (2020)

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# Impact of Clinical Trials | The Case of Belgium: Investment Selection Criteria

Scores for selection criteria for host countries by a sample of 45 pharmaceutical companies, 2017

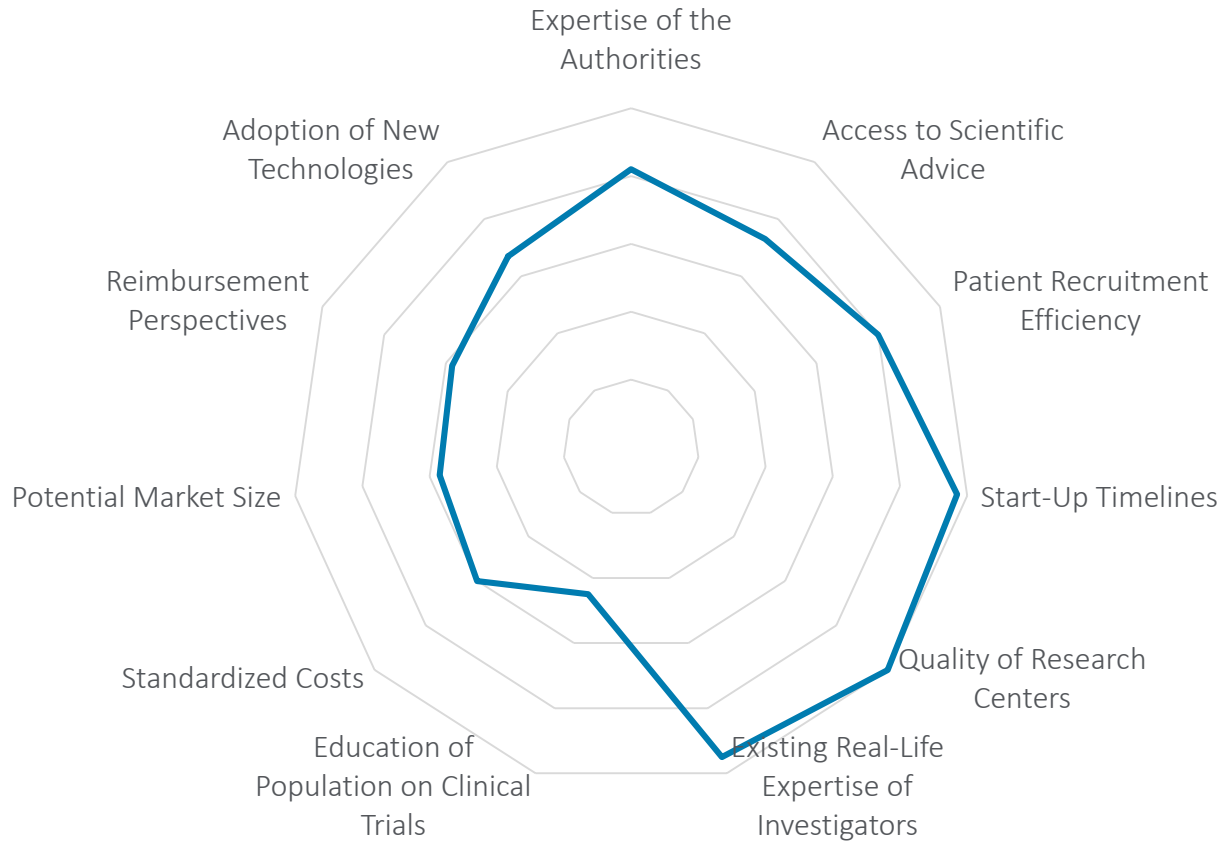


Sources: pharma.be (2017)

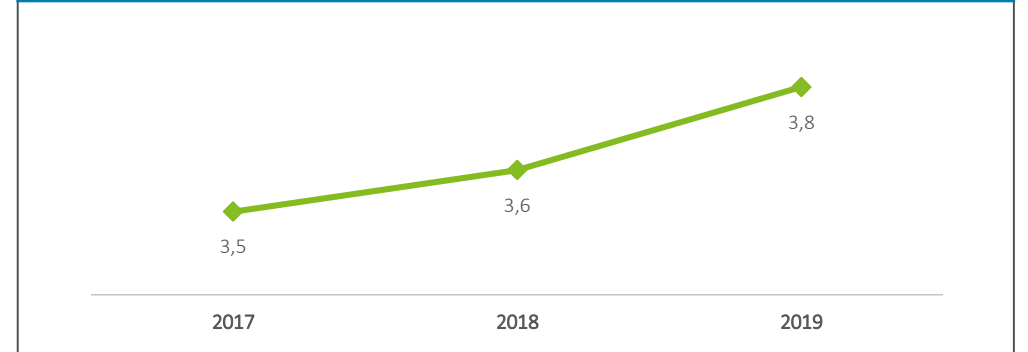
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# Impact of Clinical Trials | The Case of Belgium: Performance & Results

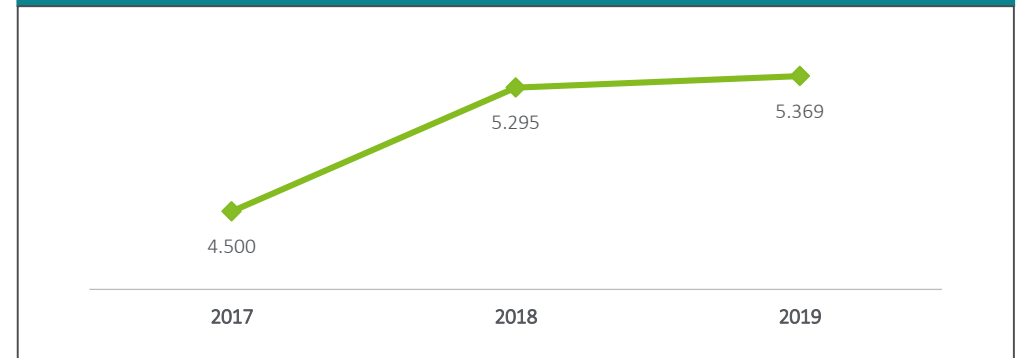
Scores for Belgium, according to criteria for selecting which country to hold clinical trials in, 2017



## R&D Investment by Pharmaceutical Companies (€bn)



## Direct Employment by Biopharmaceutical Companies (# researchers)



Sources: pharma.be (2019)

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## Impact of Clinical Trials | The Case of Greece



R&D spending for the pharmaceutical industry in 2017 amounted to **5% of total R&D expenditure** in the country.



Patents filed by the pharmaceutical sector constitute a **much higher proportion of total patents filed in the country**, compared to the EU28 (GR: 16.7% vs EU28: 2.7% in 2018).



Payback expenses (rebate & clawback) **exceeded €2bn** of in 2020.



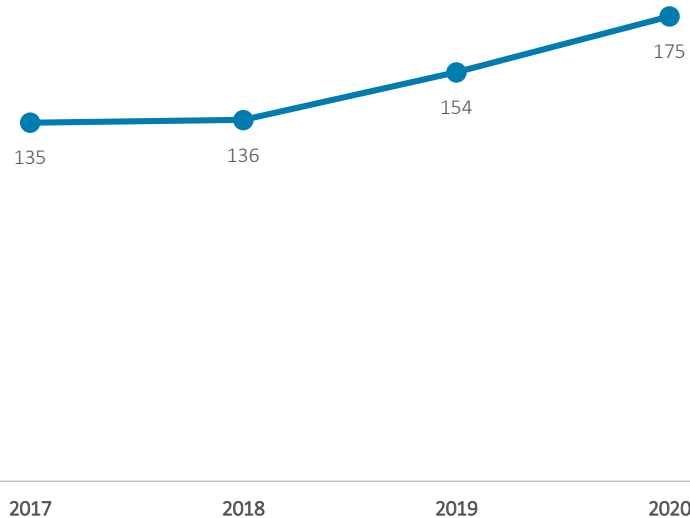
The number of clinical trials approved and hosted within the country has been increasing.



According to FEIR, the impact of pharma investments on the Greek GDP corresponds to 86% of the investment and leads to 20 job positions per invested € million.

## Impact of Clinical Trials | The Case of Greece

### Clinical Trials approved by the National Medicine Organization in Greece, 2017-2021, by starting year



Sources: National Medicine Organization (2020)

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Clinical trials phases 1, 2, 3 and conditionally 4 are eligible for the R&D tax superdeduction.

For FY2020 the R&D tax superdeduction are:

- 130% for the period January 1<sup>st</sup> 2020 till August 31<sup>st</sup> 2020, net tax reduction 7,2% of eligible expenditure.
- 200% for the period September 1<sup>st</sup> 2020 till December 31<sup>st</sup> 2020, net tax reduction 24% of eligible expenditure.

According to the new Joint Ministerial Decision that was issued on the 31st December 2020, beneficiaries may apply to offset the pharmaceutical clawback with R&D and investment expenses for FY20, within the first semester of year 2021.





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