



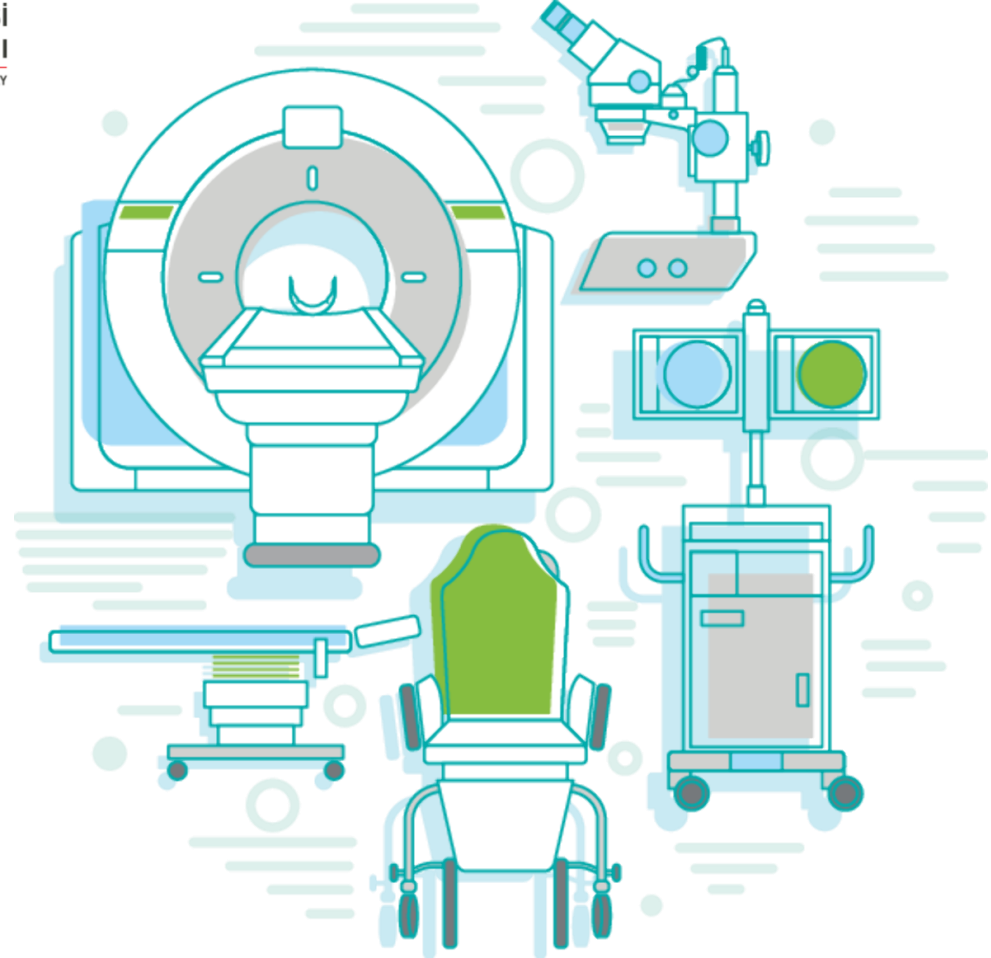
SEİS

TÜRKİYE SAĞLIK ENDÜSTRİSİ  
İŞVERENLERİ SENDİKASI  
HEALTH INDUSTRY EMPLOYERS' ASSOCIATION OF TURKEY

December 2021

# Discovering Turkey's Medical Device Industry

**Deloitte.**



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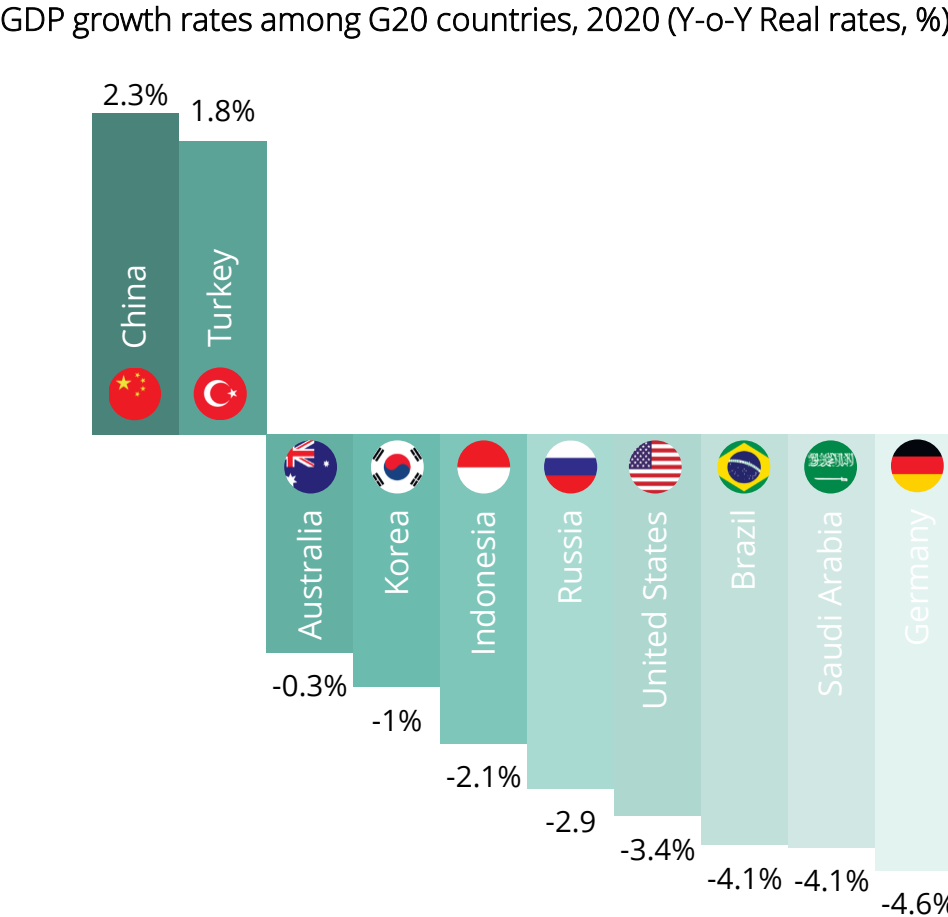
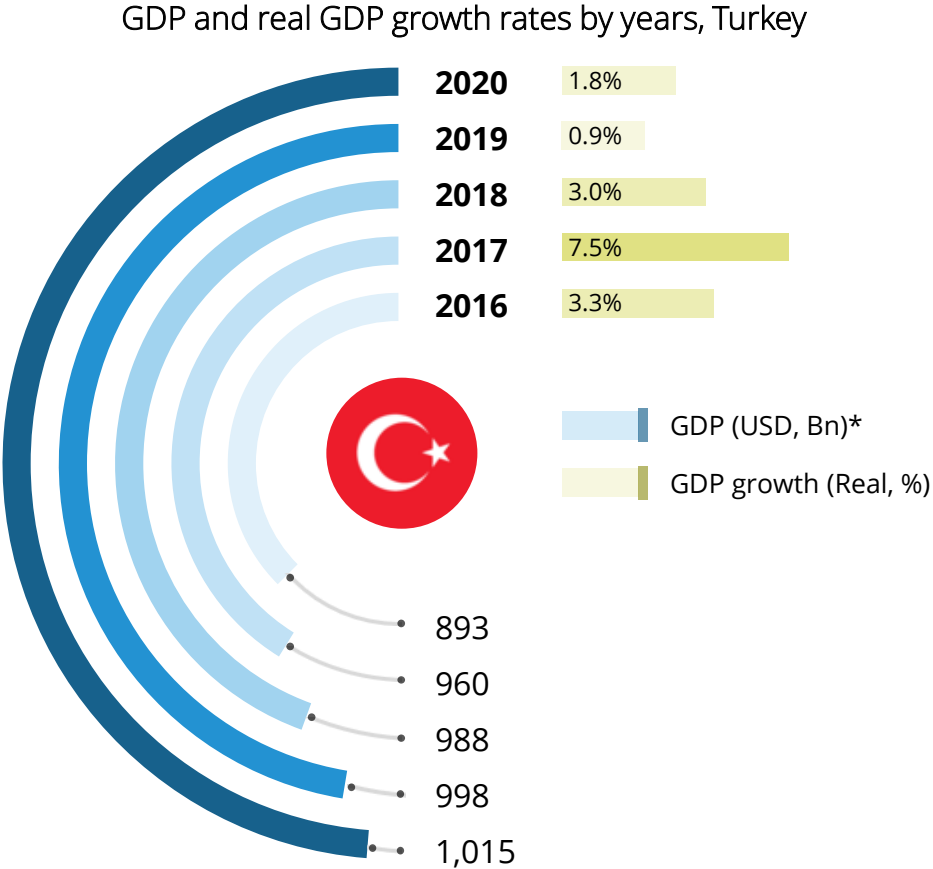
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Discovering Turkey's  
socio-economic  
potential

# Turkey, the world's largest 11<sup>th</sup> economy<sup>†</sup>, recorded a positive growth amid the Covid-19 pandemic in 2020

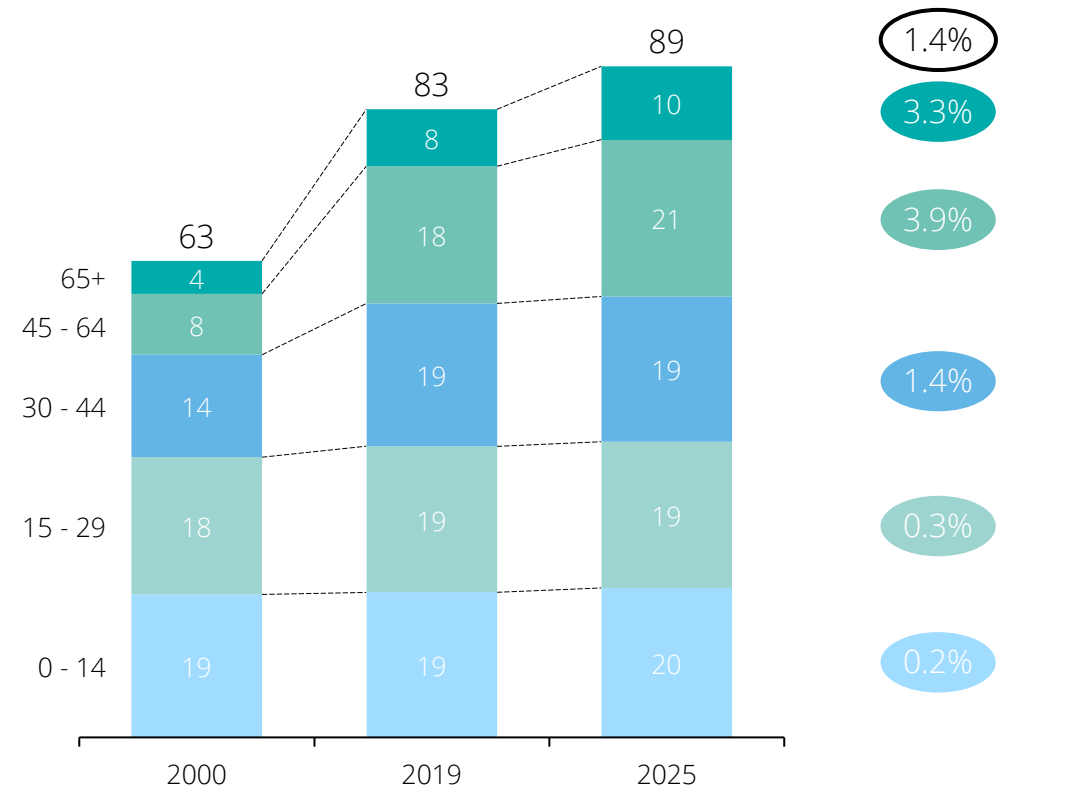


Source: World Bank, International Monetary Fund, Deloitte analysis  
 \*GDP values are given at constant 2015 USD † in terms of GDP at purchasing power parity, IMF World Economic Outlook April 2021  
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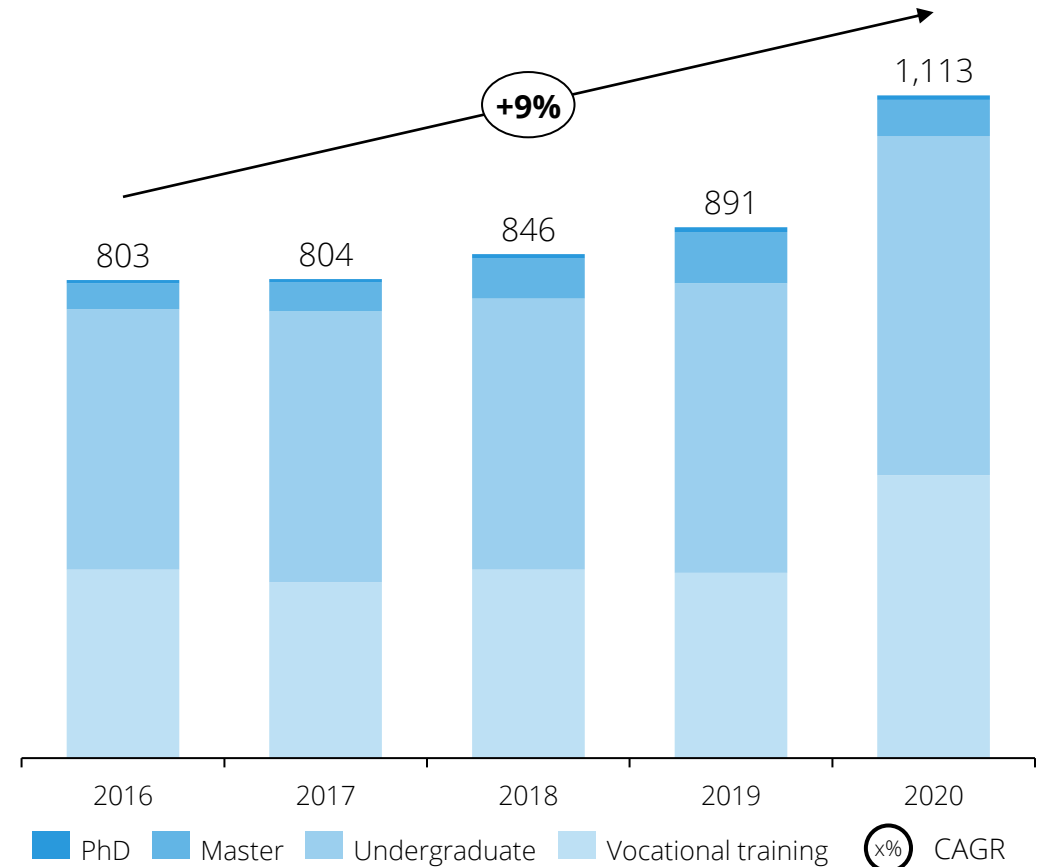


70% of the population in Turkey is under the age of 45 and more than 1 million university graduates are added to the workforce every year

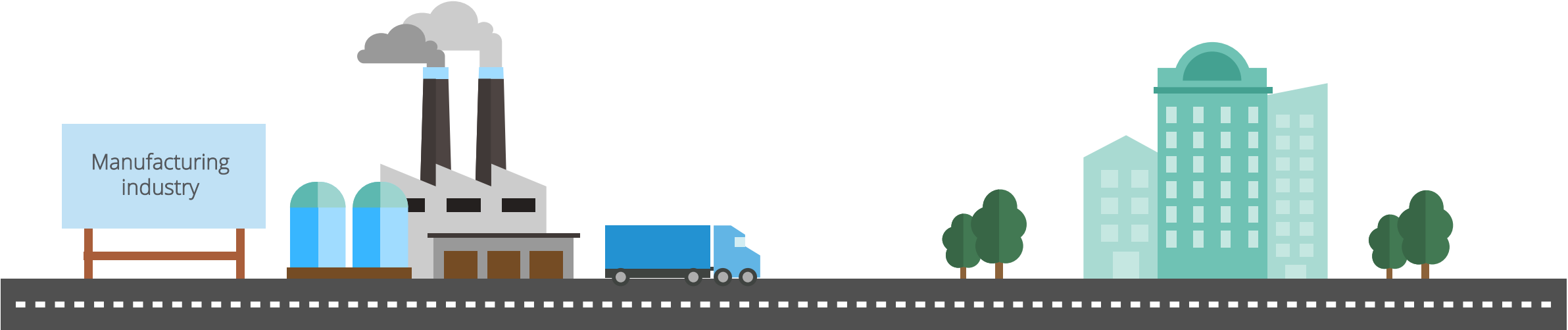
Distribution of the population by age groups, million



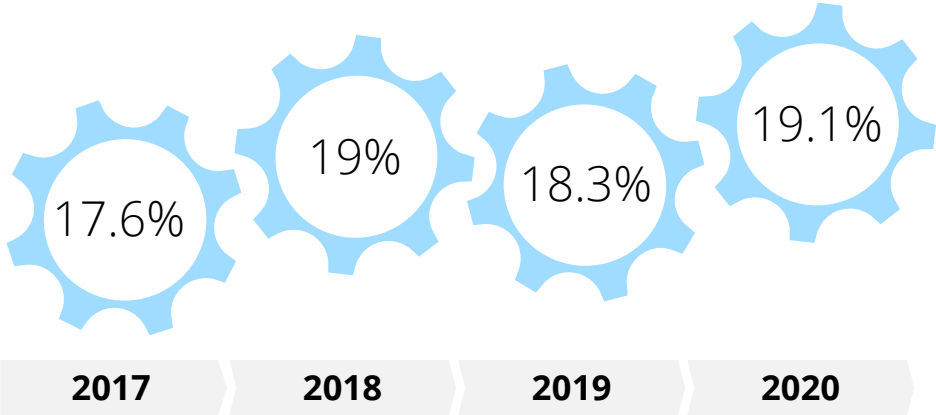
Graduates of higher education by years, 2016-2020, thousand



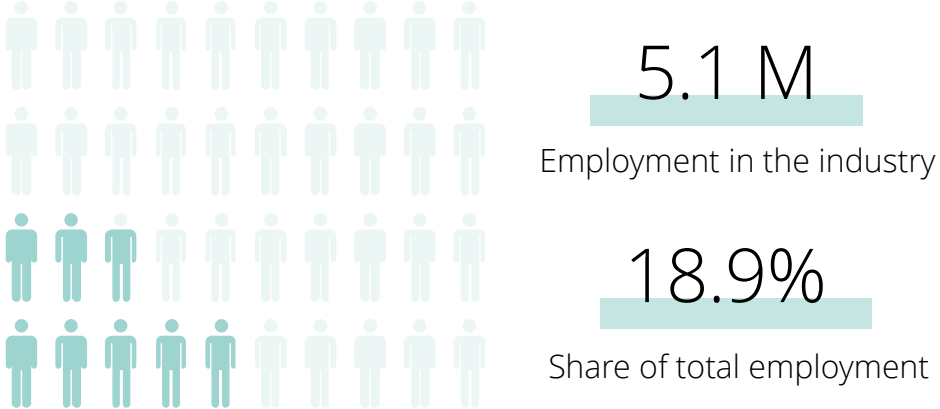
# Manufacturing industry contributes significantly to the country's GDP and supports employment all over the country



GDP share of manufacturing industry by year, %

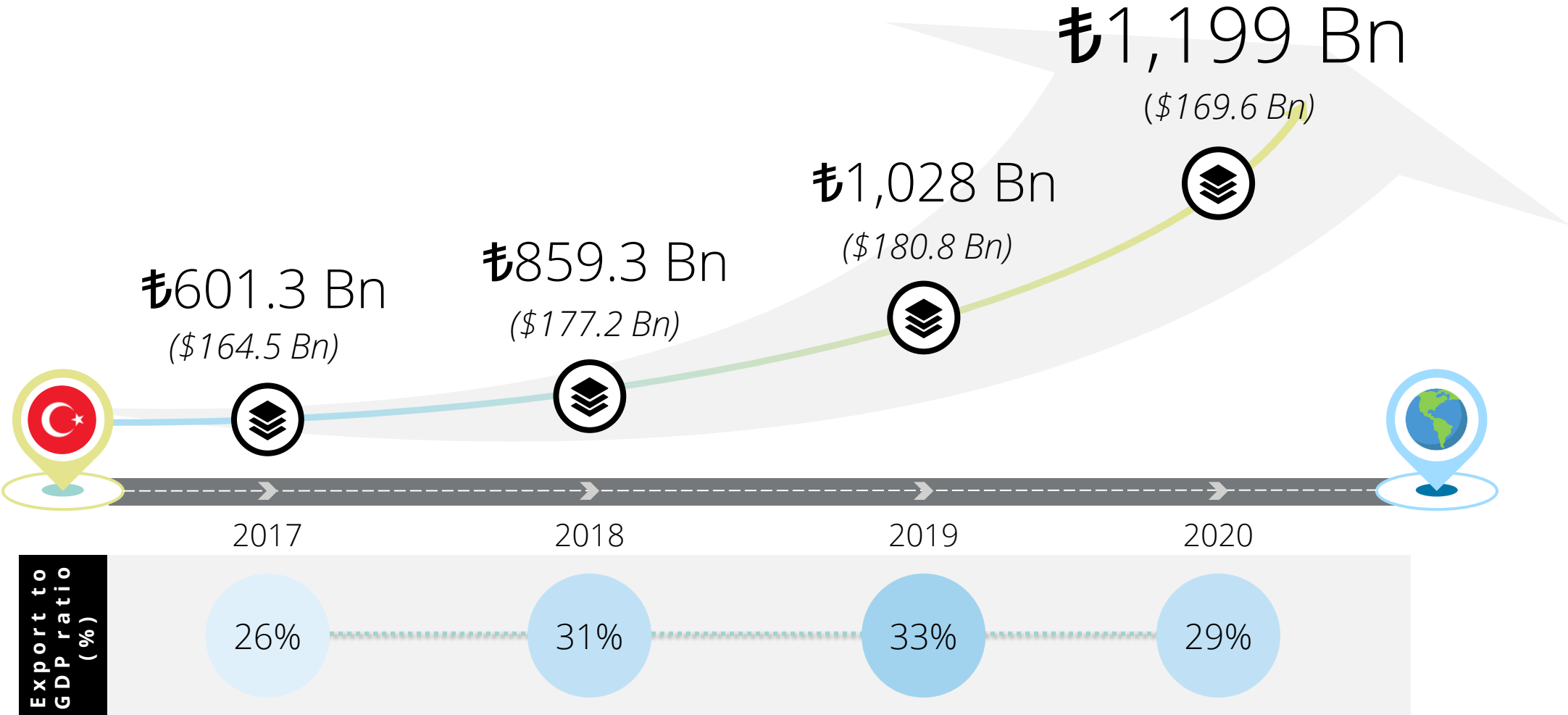


Employment in the manufacturing industry, 2020, million,%



Source: TurkStat, Deloitte analysis  
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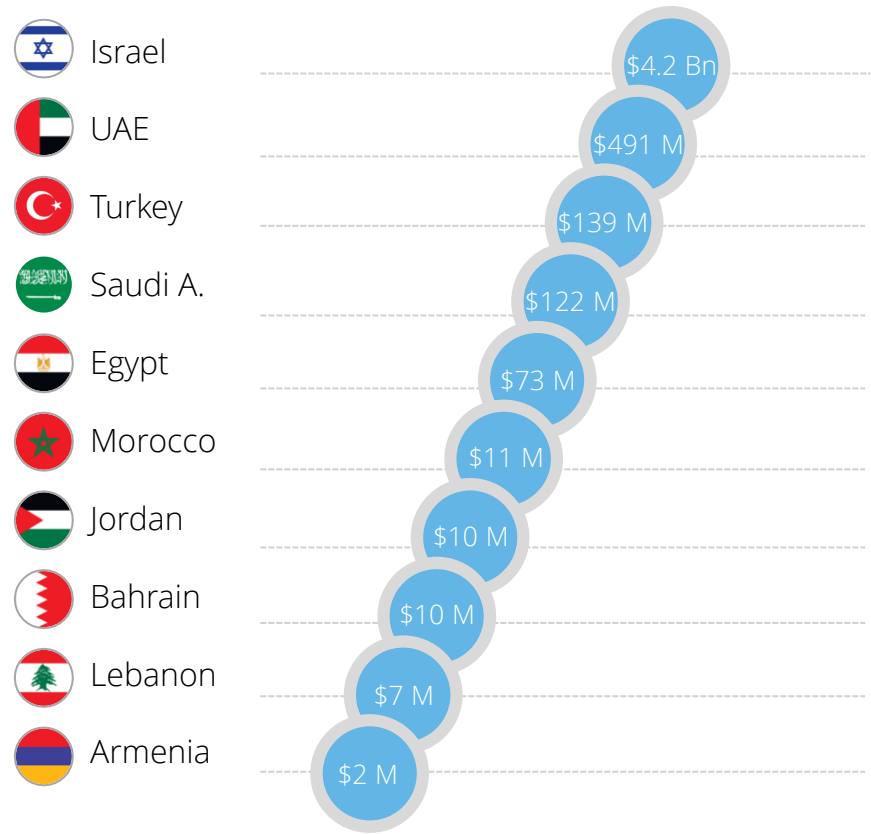
A big uptick in exports has been a major driver of the Turkey's economic growth



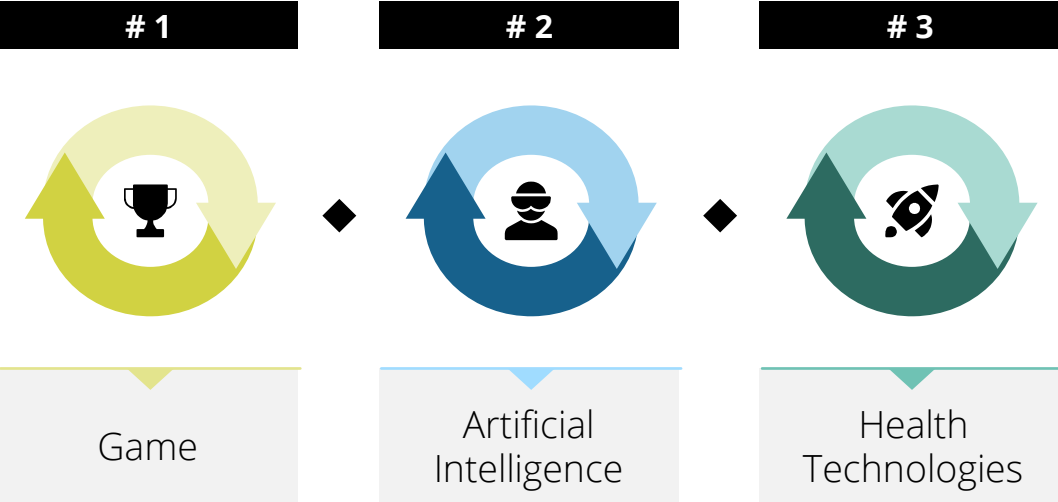
Source: TurkStat, World Bank, Deloitte analysis  
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# The entrepreneurship ecosystem has been growing as the country ranks 3<sup>rd</sup> in the MENA region by the level of funding earned by startups

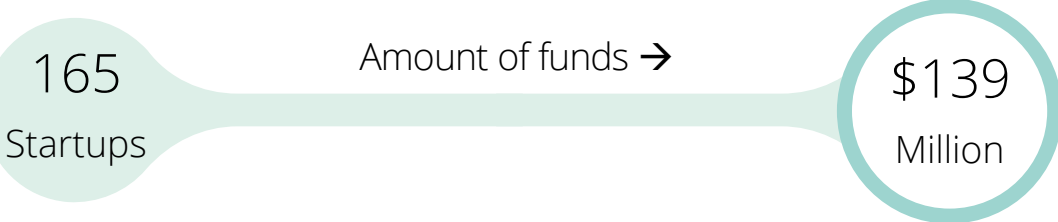
Level of funding for startups in MENA, 2020



Most preferred verticals by entrepreneurs in Turkey, 2020



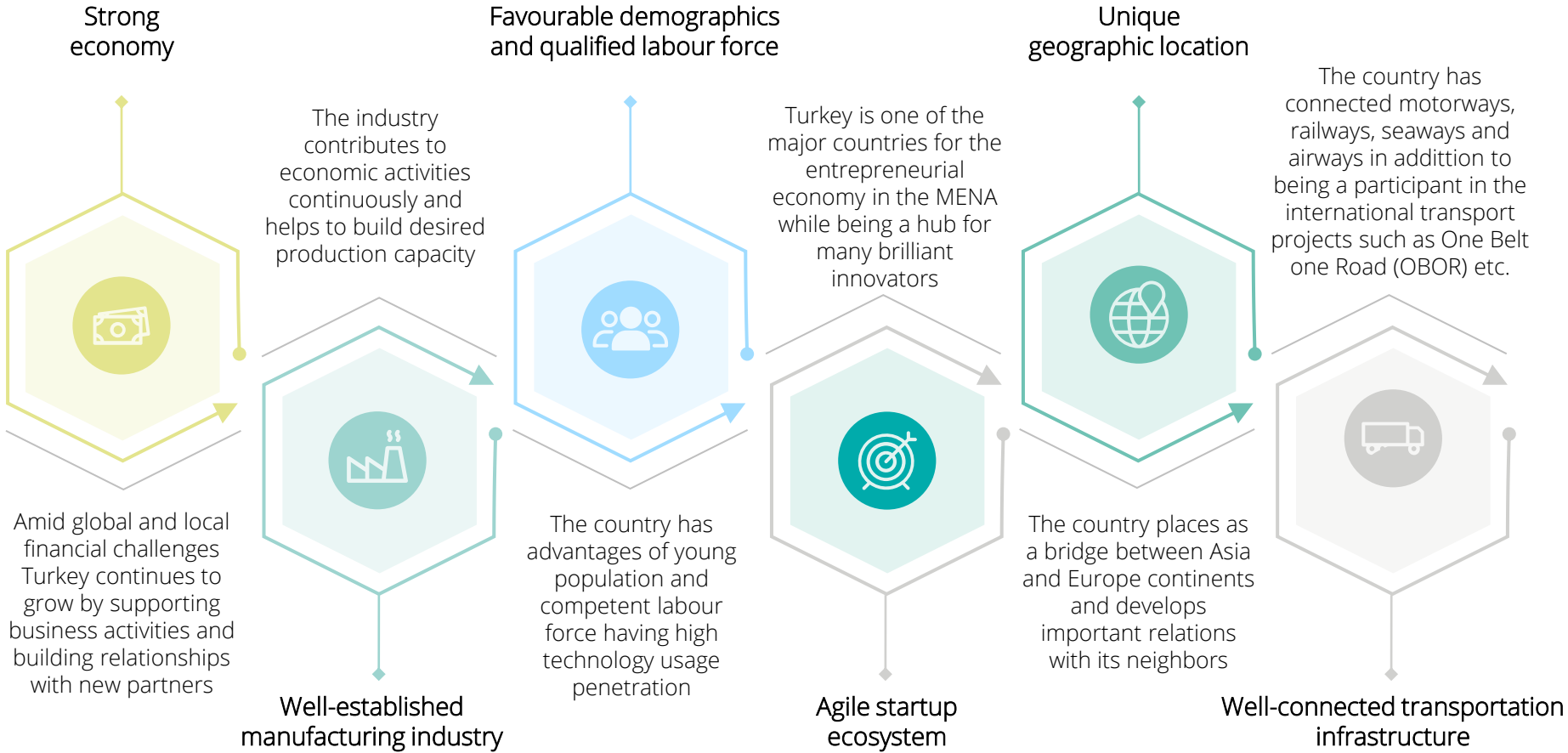
Number of startups funded by VC and angels in Turkey, 2020



Source: Startups.watch; Deloitte analysis  
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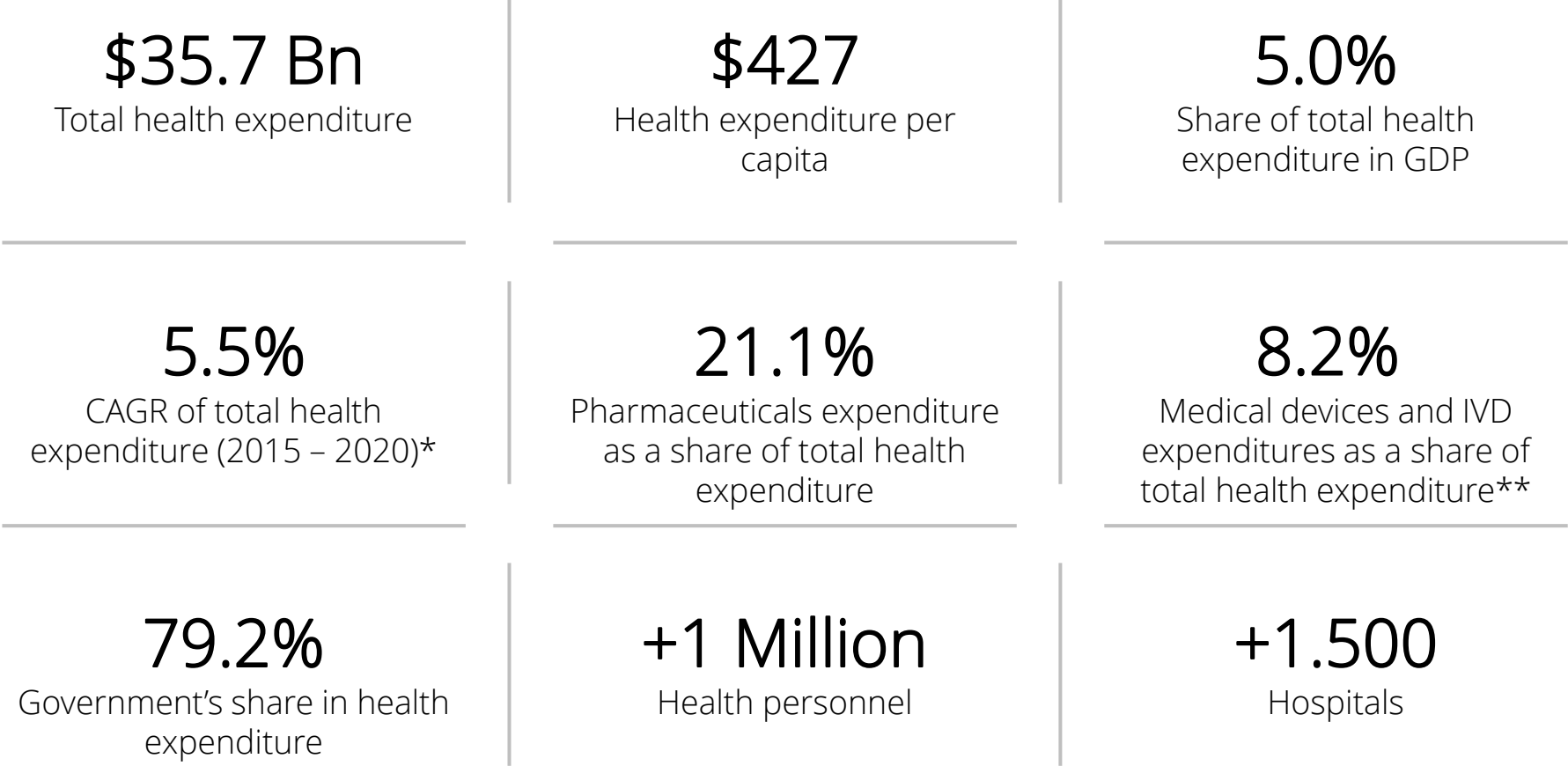
# Turkey stands out as a reliable trade partner with its unique features while providing opportunities to create lasting impacts for bilateral relationships





Discovering Turkey's medical device market

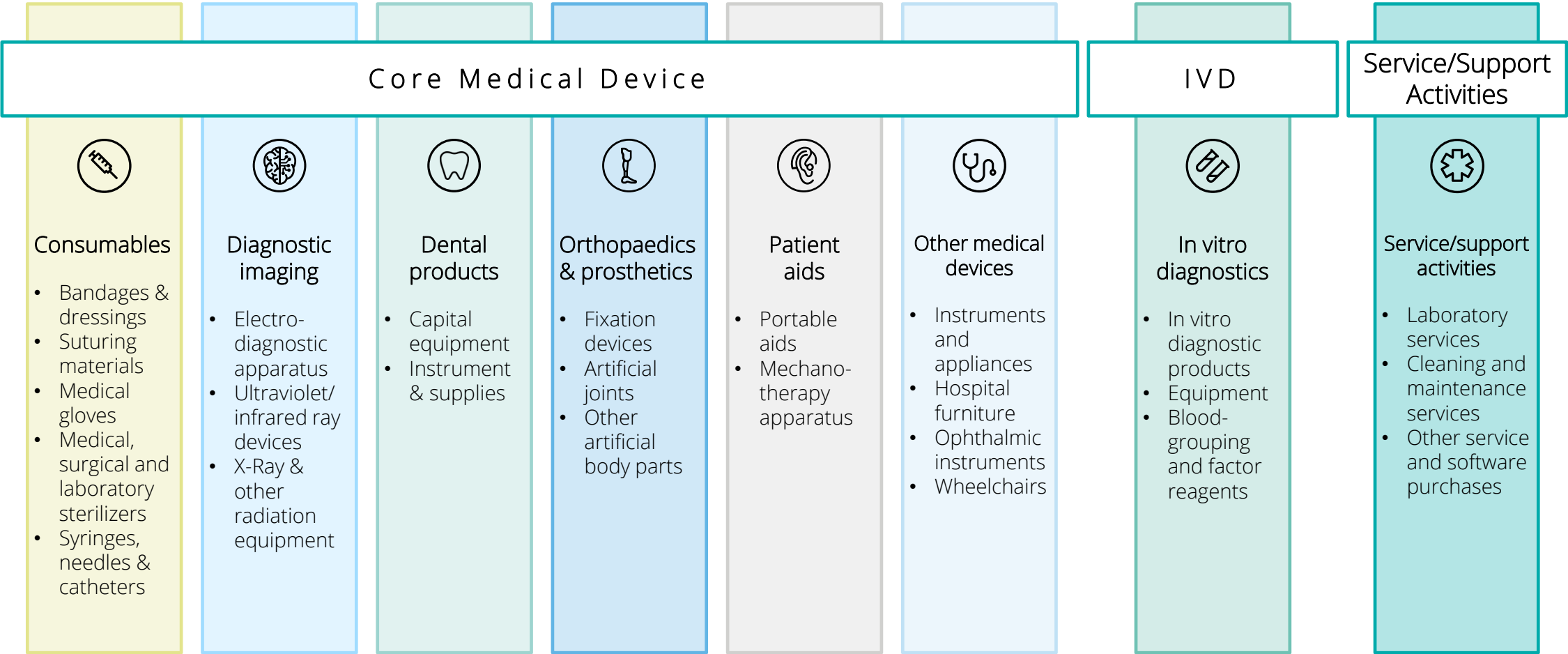
# Turkish Health Industry at a glance



Source: TurkStat, ivdIQ, IEIS, Deloitte analysis

\*CAGR is calculated as real growth based on Turkish Lira (TL). \*\*Market size of medical device and IVD sectors includes only product purchase values.

# The medical device sector consists of core medical devices, IVD products and service/support activities



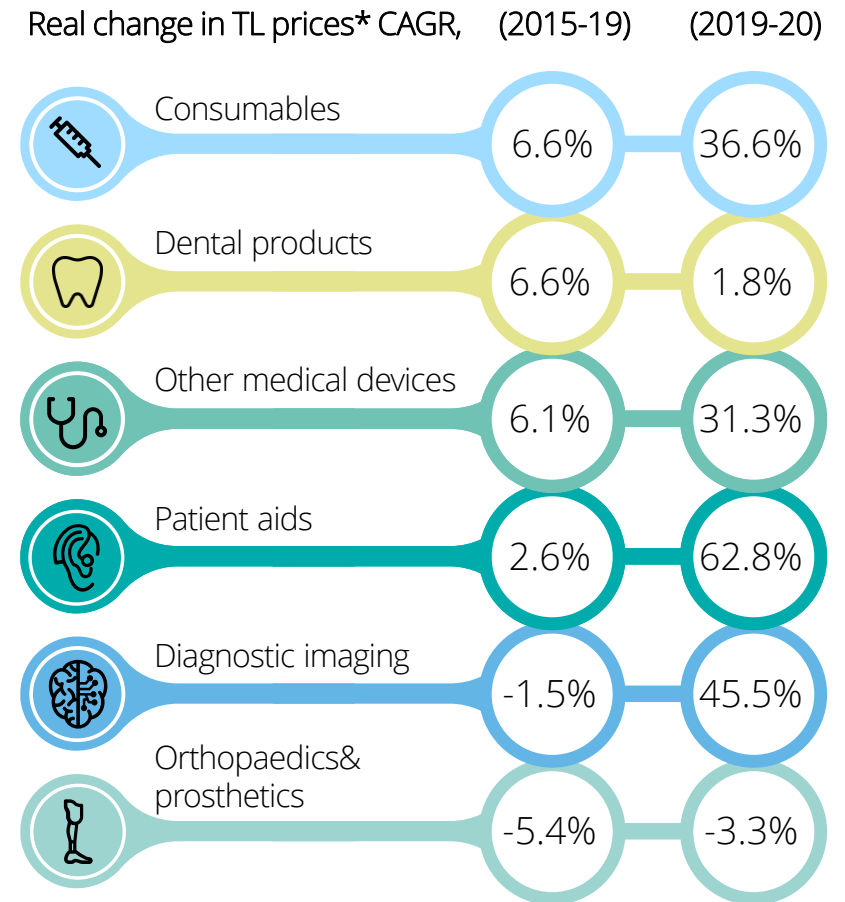
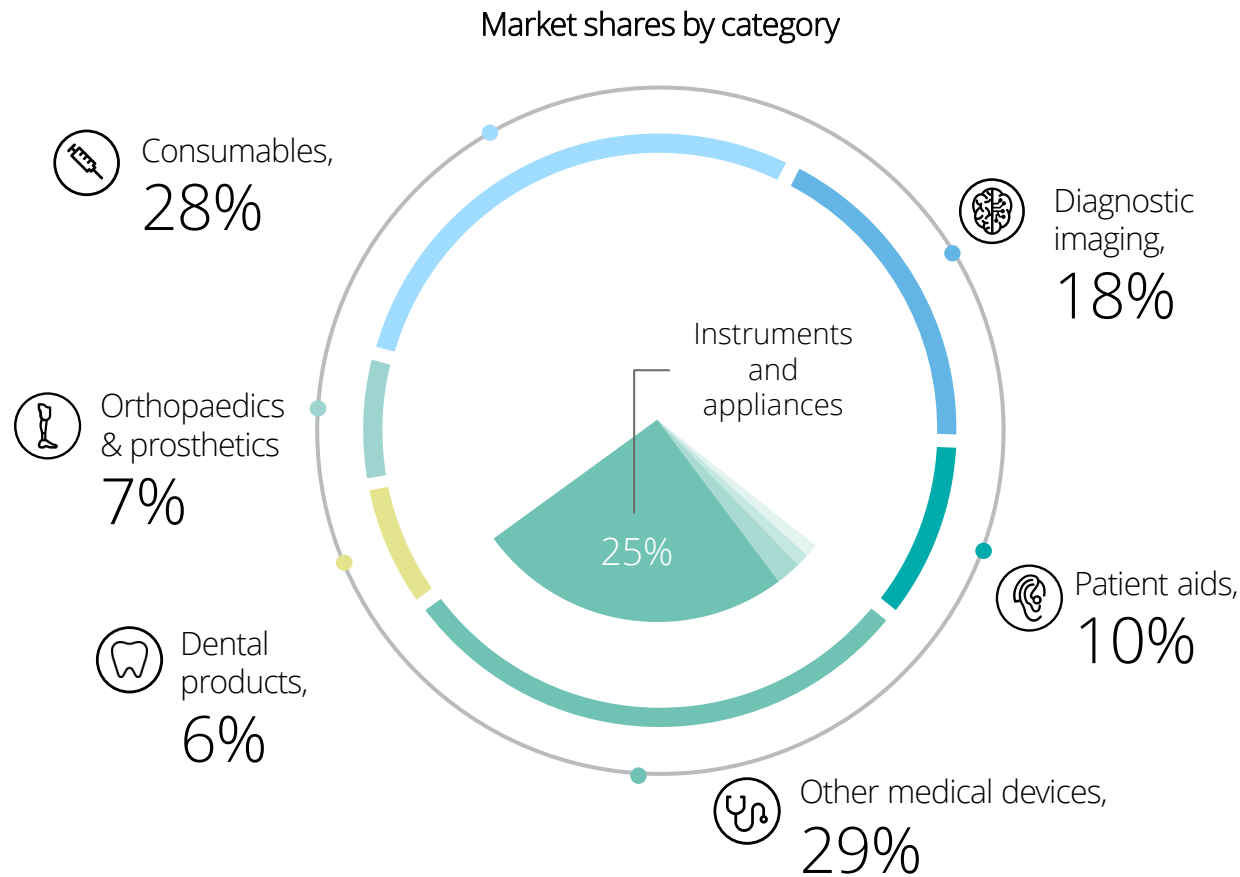
# Turkish Medical Device Sector at a glance



Source: Fitch Solutions, TC Investment Office, Deloitte analysis

<sup>1</sup>The total market size of the IVD market is estimated \$727 million including services and bulk purchases of public authorities through Kızılay, DMO, Genkök & HPV Center. In order to compare medical device market size and IVD, the scope of the study is seized with only products. Therefore, IVD market size is estimated around \$494 million. <sup>2</sup> CAGR is calculated in terms of USD. <sup>3</sup> The estimation for the number of firms and employment includes core medical devices, IVD sector, and service support activities.

# Consumables is the largest category of the Turkish core medical device market estimated at \$2.4 billion in 2020



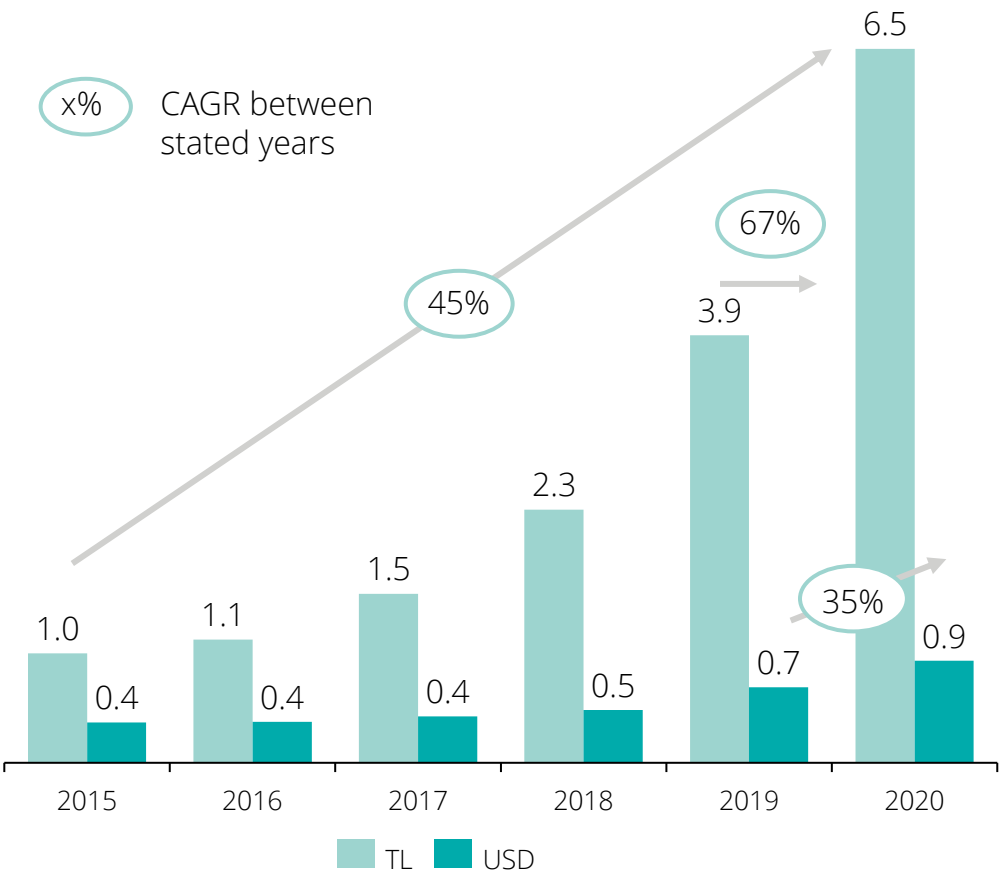
Source: Fitch Solutions, Deloitte analysis

\*Value of market in dolar terms decreased due to depreciation of TL more than 2.5 times against USD between 2015 and 2020. Hence, growth figures are calculated in real terms after adjusting for inflation.



# The export value of the core medical device sector increased by 35% to \$933 million in 2020

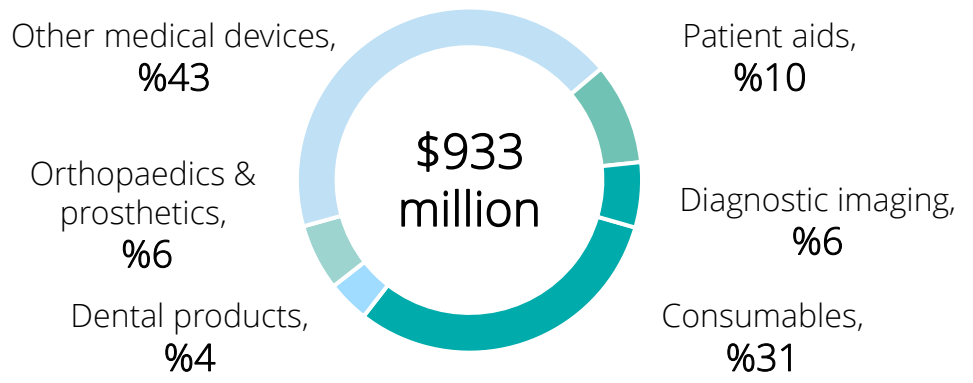
Development of medical device exports by years, billion



Source: Fitch Solutions, Deloitte analysis  
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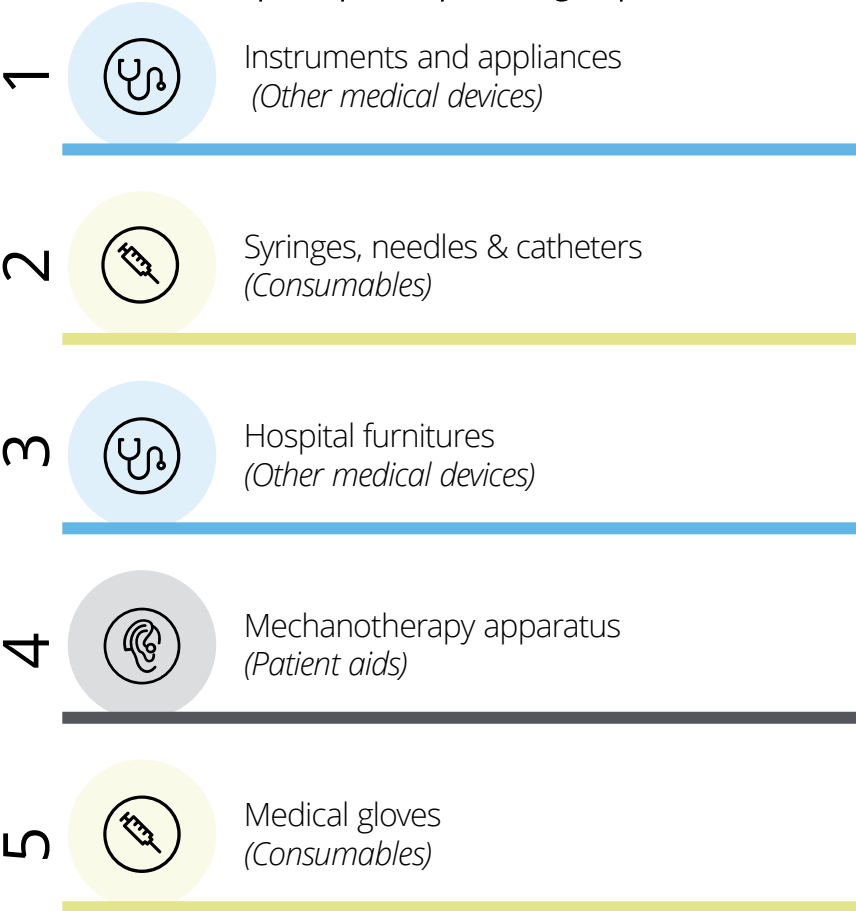
	2015 – 2020 Change, %	2015 – 20 CAGR	2019 – 20 Change, %
Change in export size (TL), %	552.7%	45.5%	66.9%
Change in export size, adjusted for inflation (TL), %	257.1%	29.0%	45.4%
Change in export size (USD), %	153.3%	20.4%	35.1%

Export breakdown by categories, 2020

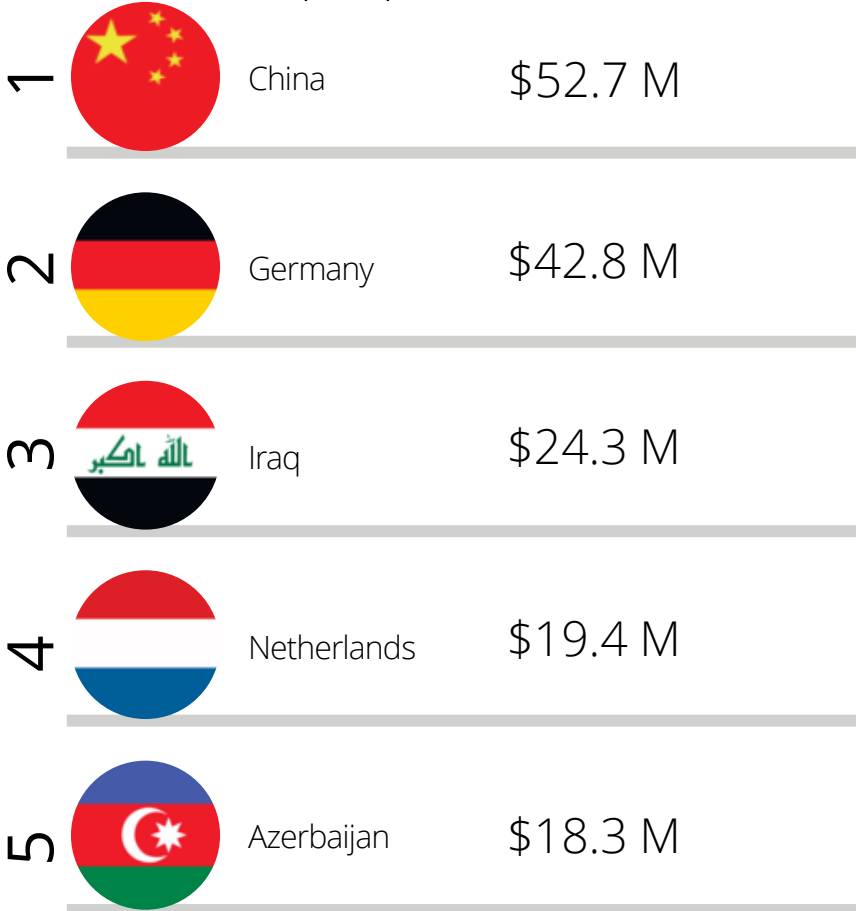


# Turkey offers trade opportunities in different categories of medical devices and maintains commercial relations with important countries

Top 5 exported product groups, 2020



Top 5 export destinations, 2019



Source: Fitch Solutions, Deloitte analysis  
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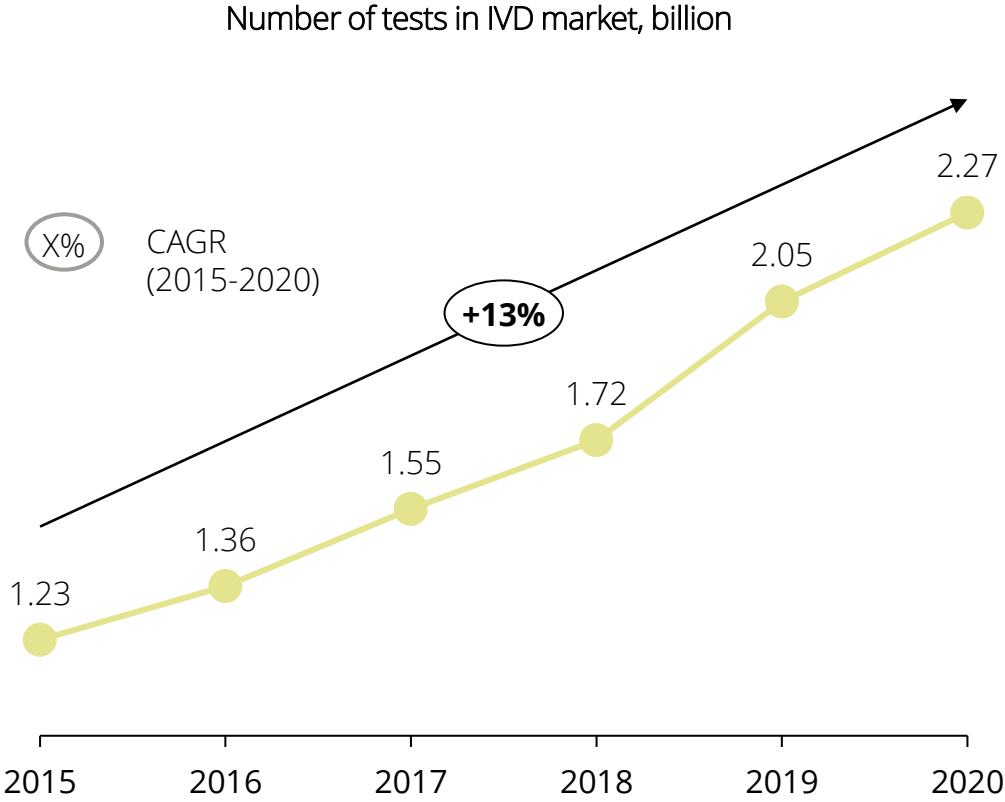
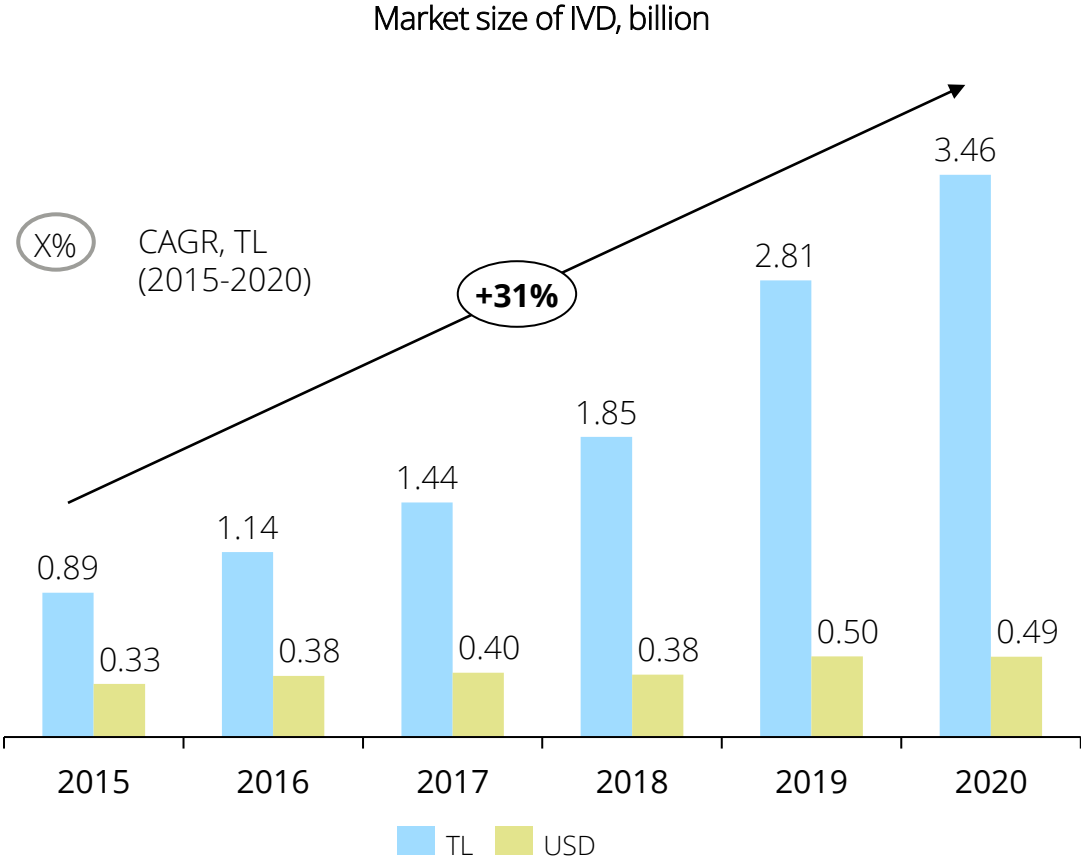
Turkey has helped combating Covid-19 pandemic globally while the country was able to export vital medicinal goods to many countries in 2020

In 2020, the global supply chains were disrupted by the Covid-19 pandemic, and many countries were faced with supply problems. However, Turkey supported the global fight against the Covid-19 pandemic with **5 billion USD** worth of exports in medicinal products including but not limited to medical devices, pharmaceuticals, PPE categories.

This export value corresponds to about **3% of Turkey's total exports** and **0.7% of the country's GDP**.



Turkish IVD market is estimated at \$494 million in 2020 having 31% CAGR in the last five-year period



Source: ivdIQ, Deloitte analysis  
Mid-year USD/TL rate data is obtained from the CBRT  
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# Turkey has been developing its human capital in the field of medical technologies



In the fields of

- Bioengineering
- Biomedical sciences and engineering
- Biomedical technologies
- Biomedical device technology
- Advanced biomedical technologies

4.3 k

Number of graduates, 2020

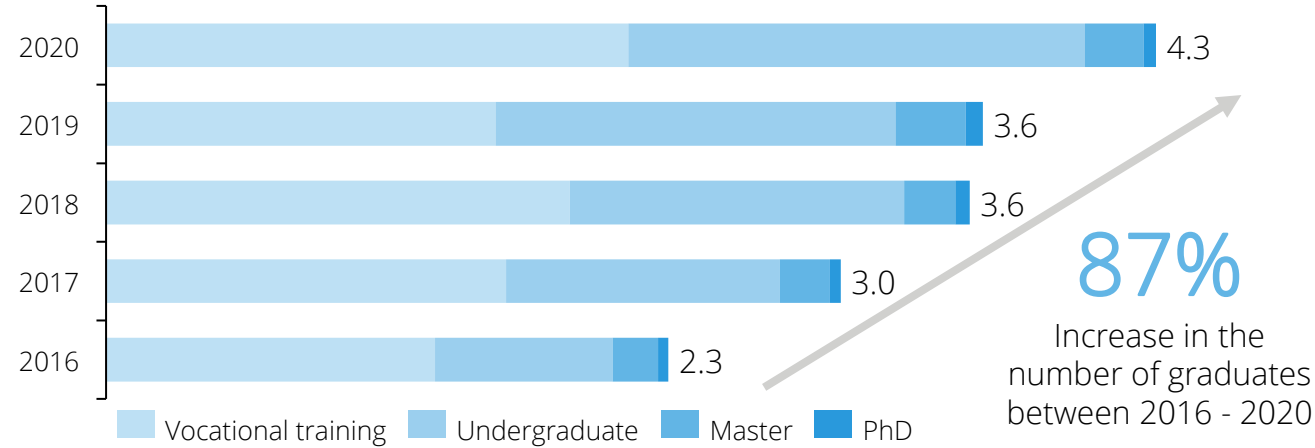


In the field of health and welfare

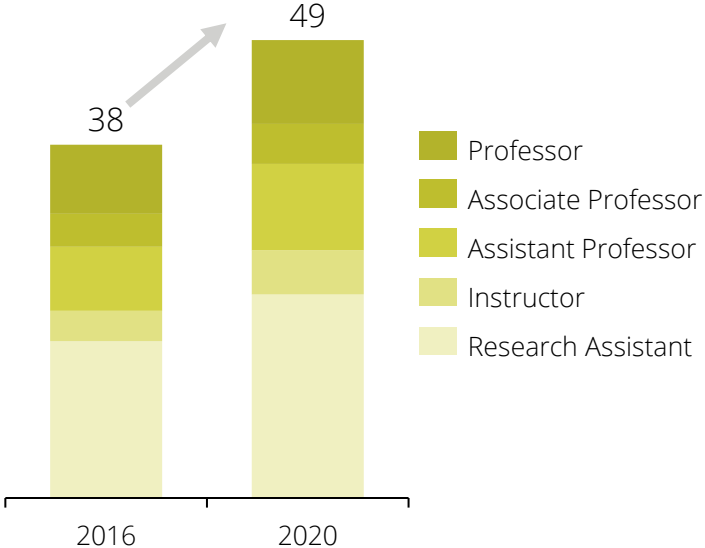
49 k

Number of academicians working in institutes, research centers, institutions providing undergraduate and vocational training in 2020

Number of graduates by year



Number of academic personnel by year



Turkey has harmonized the relevant medical device regulations with MDR and IVDR for full compliance with the EU legislation in the context of its candidacy for the union membership and the Customs Union Agreement

**Medical Device Regulation**

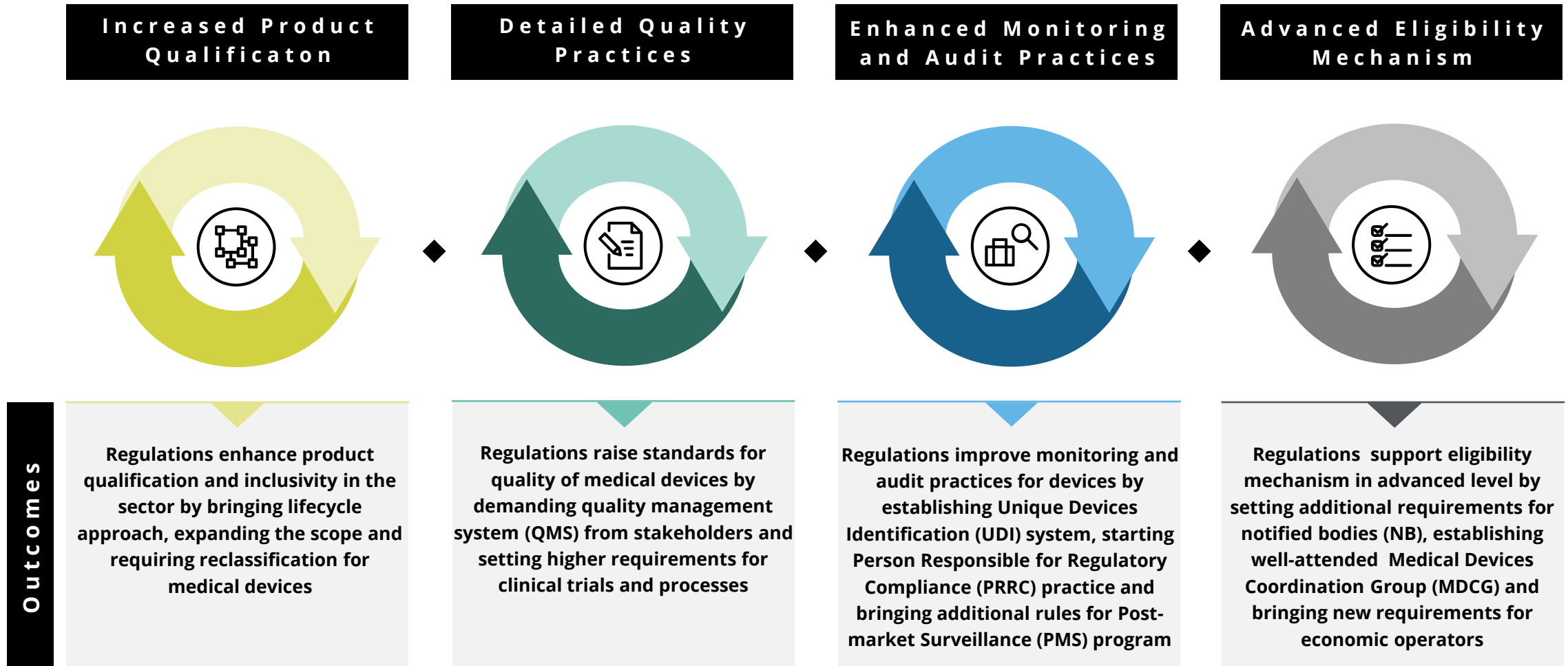
**In Vitro Diagnostic Medical Device Regulation**

**Regulation on Medical Devices Manufactured Using Tissues of Animal Origin**









# New regulations aiming to reach international standards and create a more transparent sector structure bring higher standards for Turkish products



Source: European Commission (EU), TÜV SÜD, TITCK, sector interviews and Deloitte analysis

# Turkish medical device industry has a high representation with a strong non-governmental organization (NGO) structure

Federation and its members	Association	Health Industry Clusters	Other NGOs & Associations
			
<p>The mission of the Federation is to develop professional unity, assistance, social solidarity, harmony and discipline among the existing "Medical Device Manufacturer, Importer and Supplier Associations." The goals of the members are stated below:</p> <ul style="list-style-type: none"> <li>• coordinate, discipline and encourage the work of their member firms, to raise awareness,</li> <li>• cooperate with the governmental institutions; protect the technical, economic, social, cultural and legal rights and interests of the members, solve the problems of the medical device sector,</li> <li>• conduct studies, seminars, conferences and trainings to improve the qualifications of the profession and collaborate with other NGOs to reach mutual goals.</li> </ul>	<p>The goals of SEİS are stated below:</p> <ul style="list-style-type: none"> <li>• Uniting all companies in the health industry sector under one roof</li> <li>• Identifying the problems of the members and finding solutions</li> <li>• Conveying opinions of the members to official/governmental authorities</li> <li>• Contributing to platforms deciding national health policies,</li> <li>• Increasing the quality of the workforce by collaborating with institutions</li> <li>• Taking initiatives to provide financial convenience to its members</li> <li>• Ensuring the recognition of member companies by cooperating with organizations such as industry representative unions and associations abroad</li> </ul>	<p>The goals of clusters are stated below:</p> <ul style="list-style-type: none"> <li>• Increasing national and international interactions for start-ups, SMEs and entrepreneurs</li> <li>• Supporting promotion, fair and congress participation</li> <li>• Establishing a pilot production facility and laboratory areas open to common use</li> <li>• Accelerating the entry of domestic products and technologies into the market</li> <li>• Conducting R&amp;D, innovation, technology transfer studies within the framework of university-industry cooperation</li> <li>• Organizing events, seminars, trainings etc.</li> <li>• Contributing to the public policy development process</li> <li>• Focusing on thematic investment cooperation and fund development</li> </ul>	<p>Other NGOs representing local and global companies outside the federation and clusters, sector assemblies, exporters' associations aim to conduct activities for the development, growth and solution of the problems of the medical device industry.</p>

Source: Websites of relevant institutions

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