



## 2020 Information and Communication Technologies

### Industry

Market Data and Trends

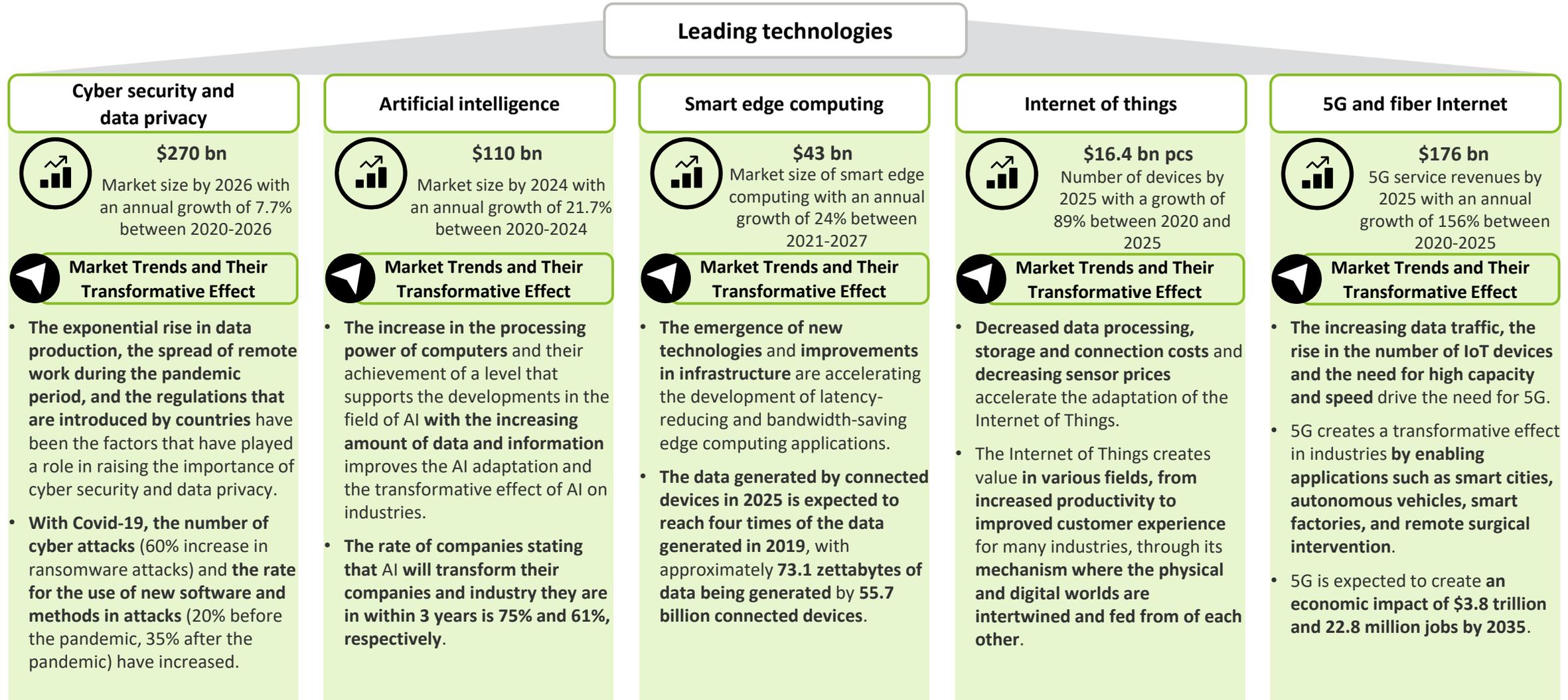
July 2021

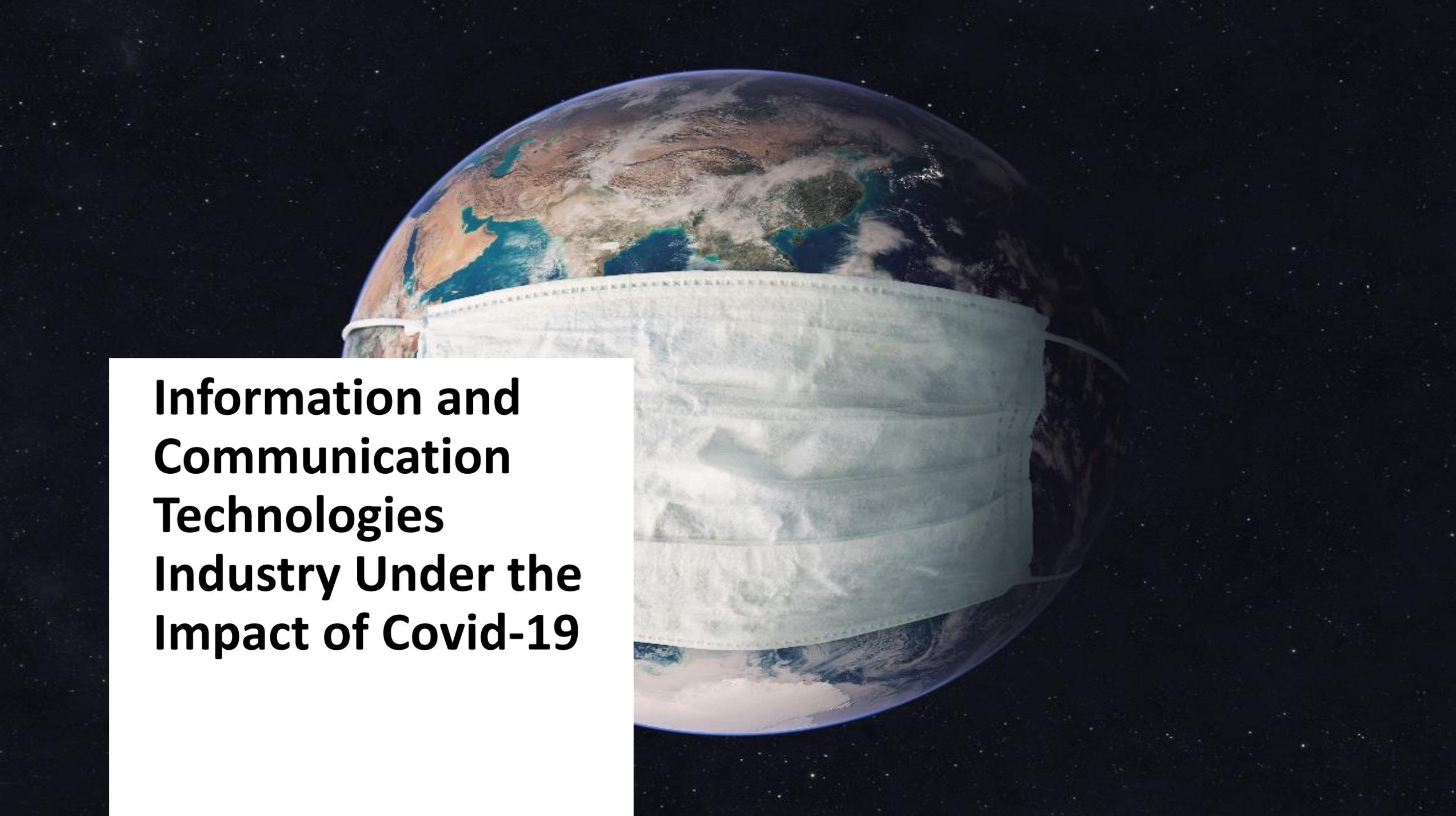
A vibrant display of fiber optic cables with glowing blue, green, and purple light trails against a black background. The cables are bundled together at the bottom and fan out, creating a starburst effect. The light trails are composed of many small, bright points of light connected by thin lines, giving the impression of a dynamic, energetic network.

# Leading Technologies in the Industry

# Leading Technologies in the Industry

5G and fiber internet, Internet of things, smart edge computing, AI, cyber security and data privacy technologies are technologies that stand out both with the market growth expectation and adaptation, and their transformative effects on the industries.

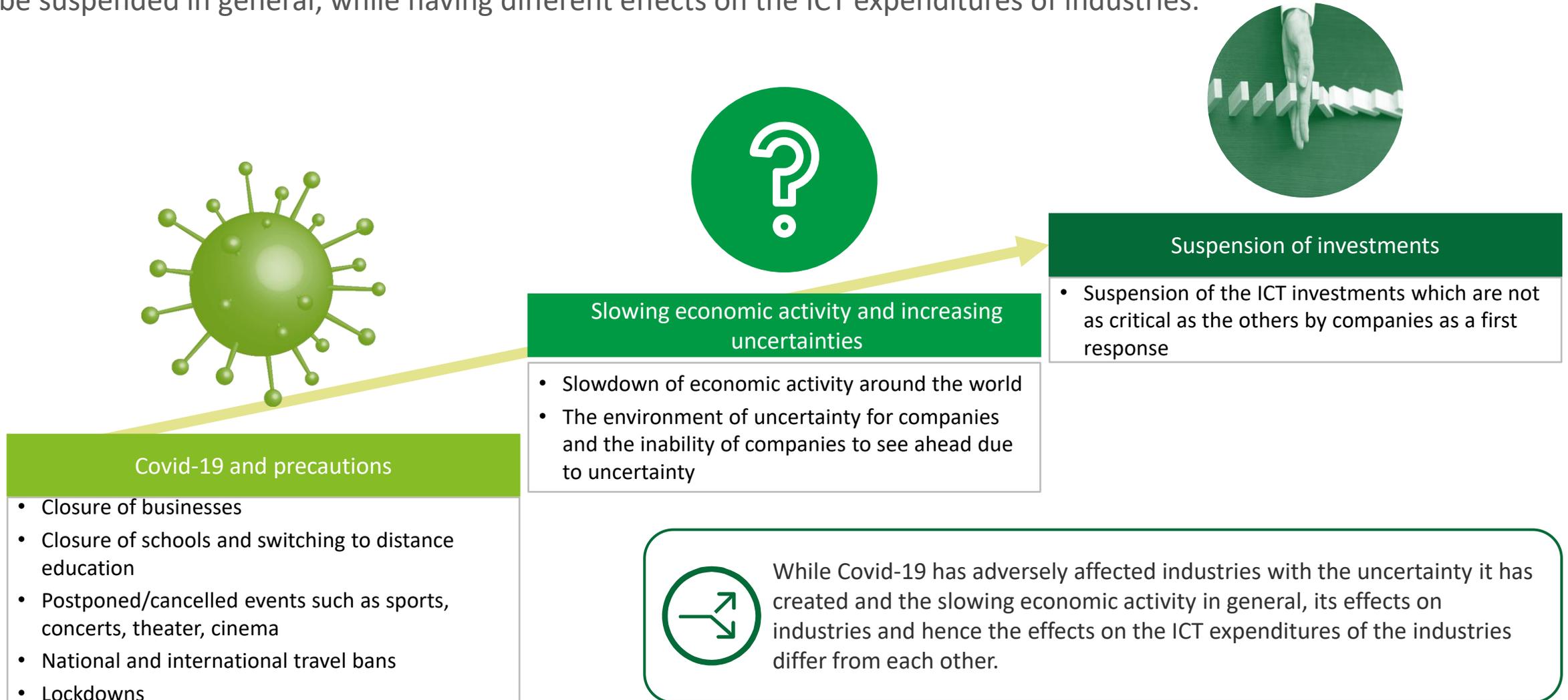




**Information and  
Communication  
Technologies  
Industry Under the  
Impact of Covid-19**

# Impact of Covid-19 on ICT Spending

The economic activity slowing down with the effect of Covid-19 and increasing uncertainties caused ICT investments to be suspended in general, while having different effects on the ICT expenditures of industries.

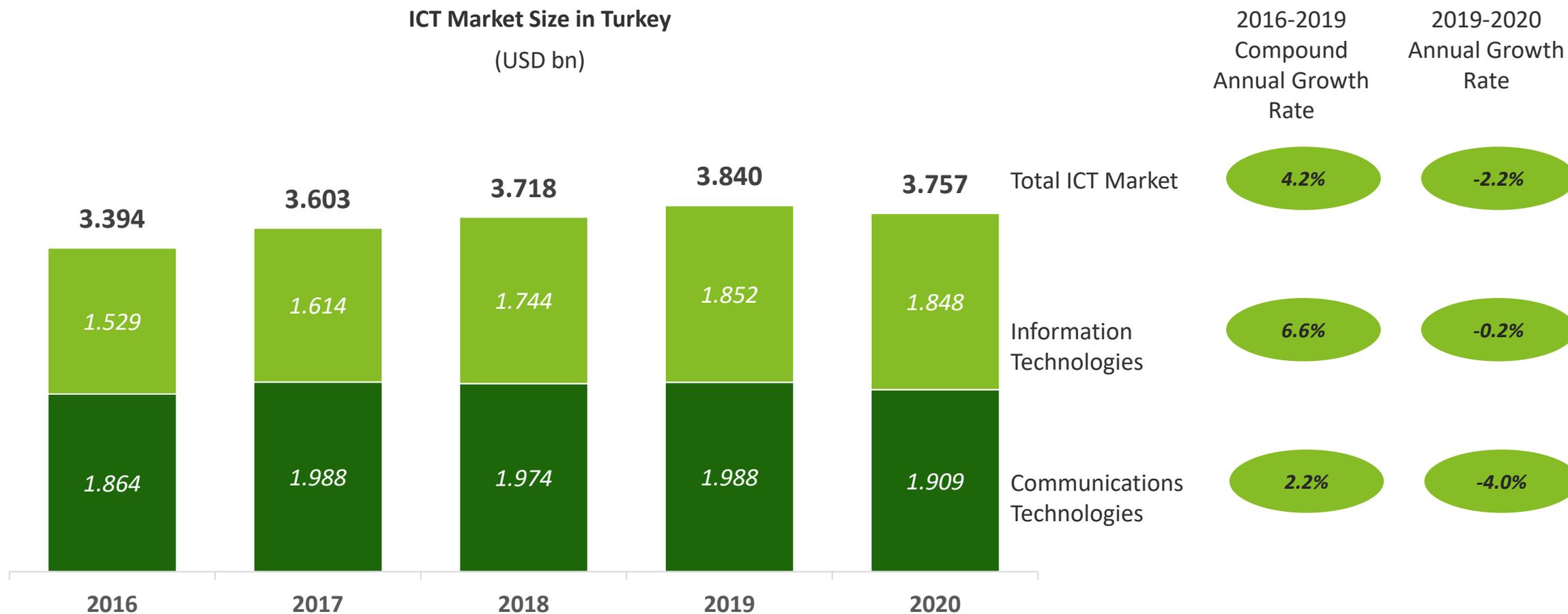


# Global Industry Size



# Size of the Global ICT Market in 2020

The size of the global ICT market decreased by 2.2% to 3.8 trillion dollars in 2020, while the information technologies and communication technologies market sizes were down by 0.2% and 4.0%, respectively.

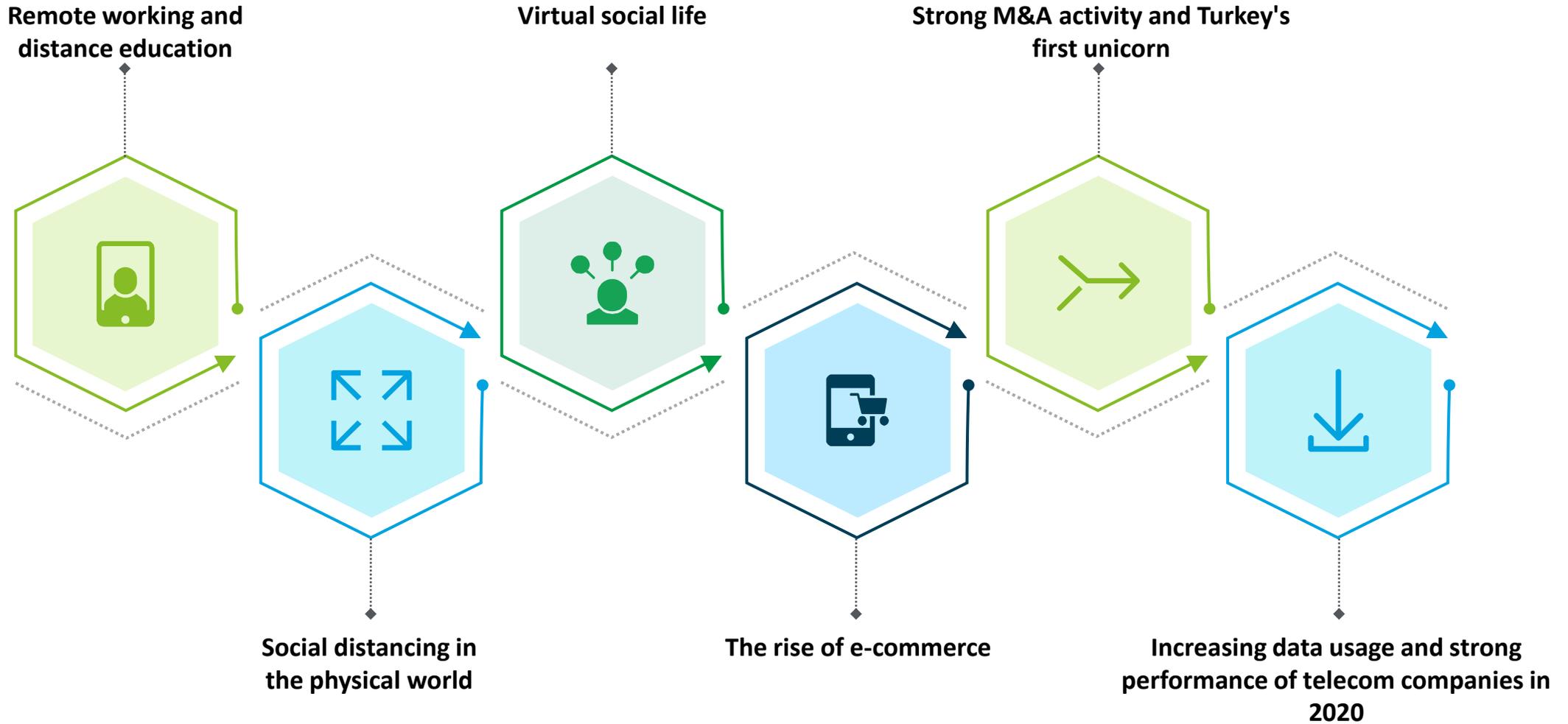


Note: Sums may differ due to rounding.  
Source: Gartner, Deloitte analysis  
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**Prominent  
Developments in  
the ICT Sector in  
Turkey**

# Prominent Developments in the ICT Sector in Turkey





**Size of the Turkish  
Information and  
Communications  
Technologies  
Industry**

# Project stakeholders

Project Consultant

**Deloitte.**

Project Data Providers

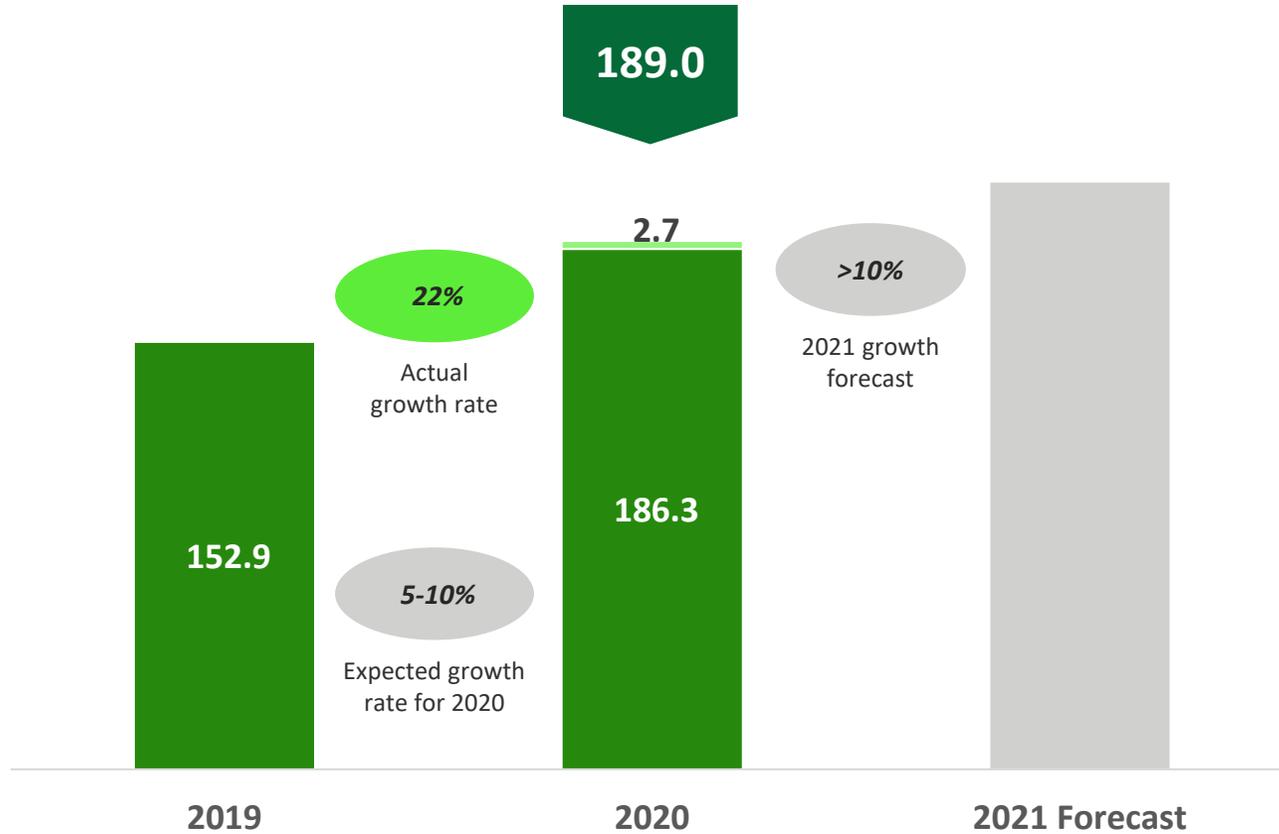


# Total Industry Size (bn TRY)

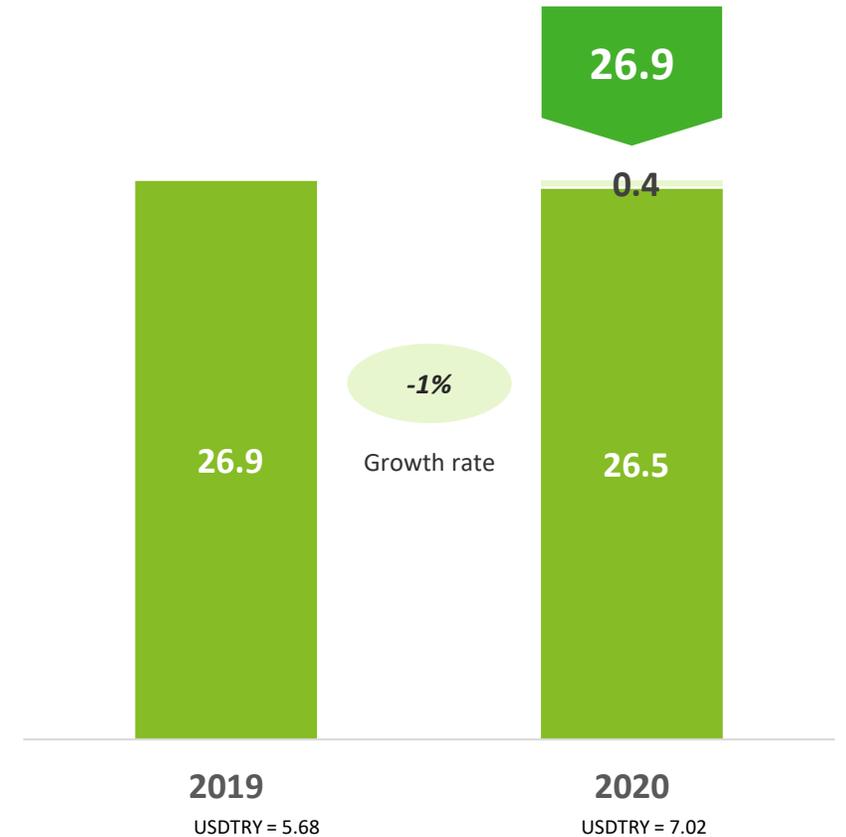
In 2020, the market size reached 189.0 billion TRY (US\$26.9 billion).

## ICT Market Size in Turkey

(billion TRY)



(USD bn)



Size of newly added companies this year

Annual changes refer to comparable growth rates.

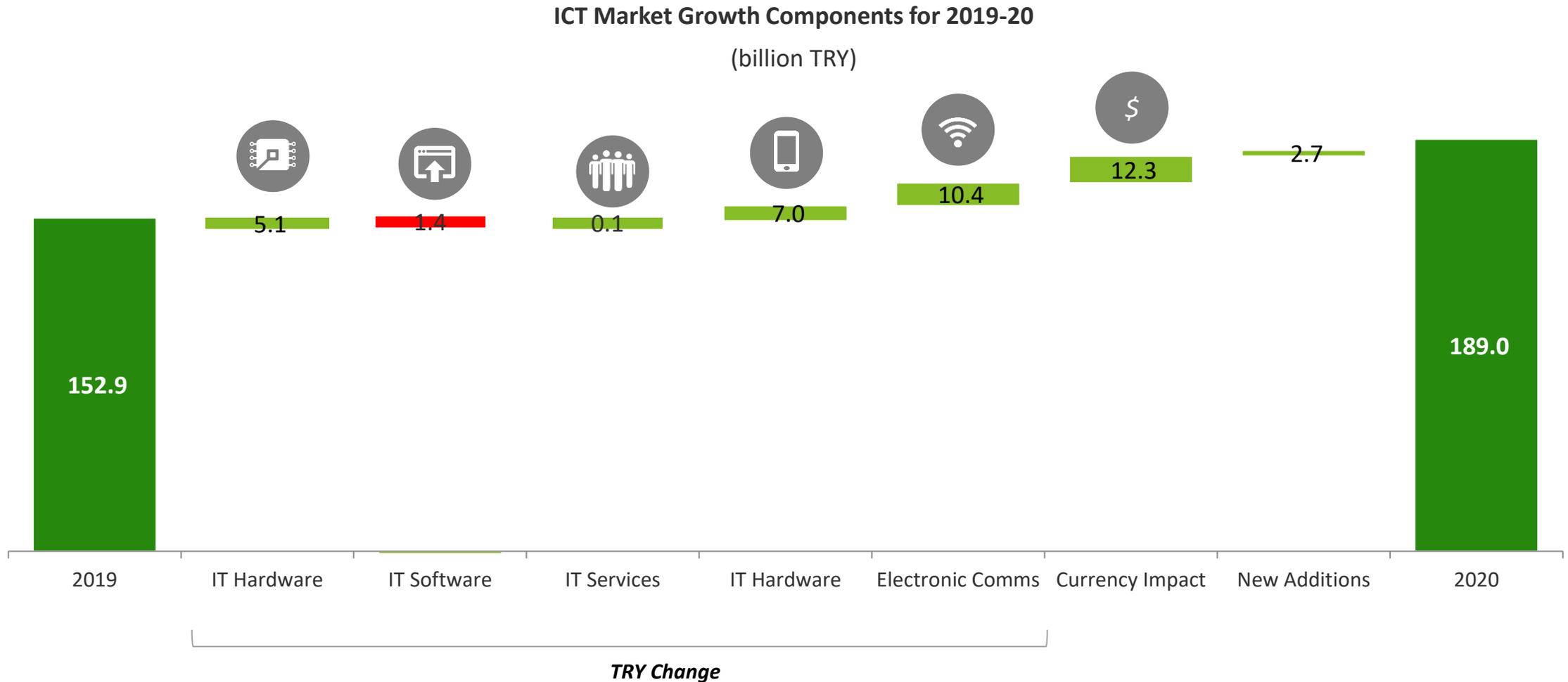
Note: Sums may differ due to rounding.

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Size of newly added companies this year

# Sector Growth Components

Changes in foreign exchange rates and Electronic Communications sector contributed growth in the sector with 12.3 bn and 10.4 bn TRY, respectively.



Note: Sums may differ due to rounding.

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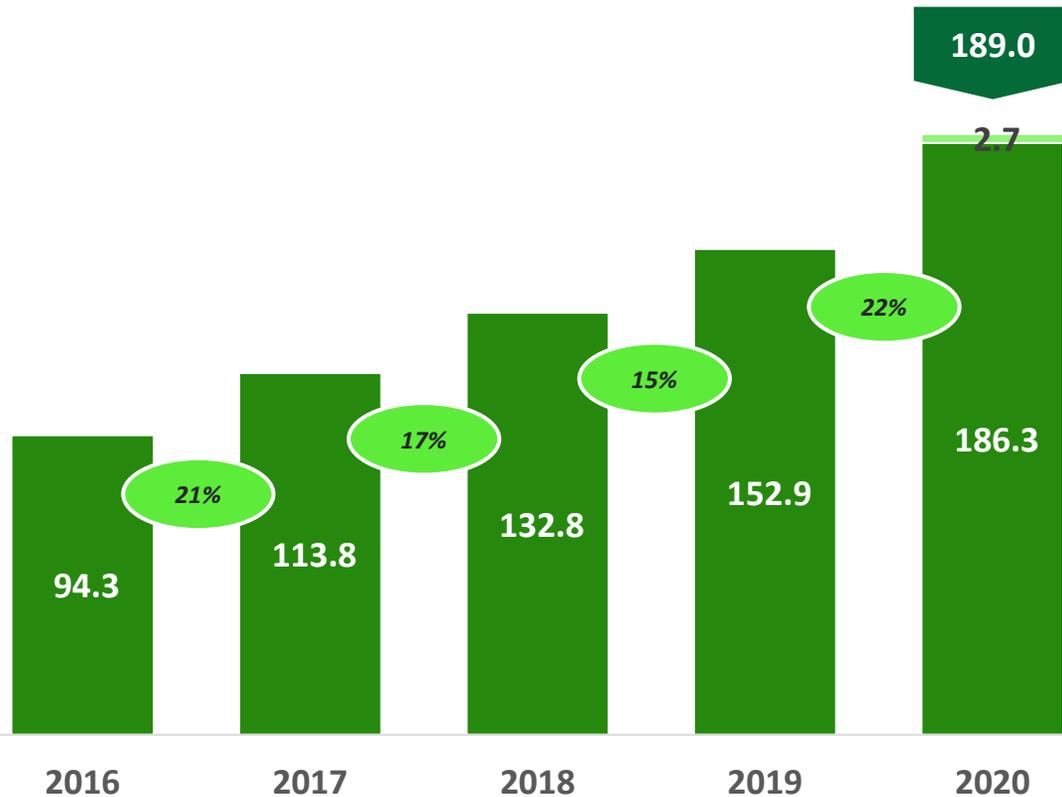
# Total Industry Size (bn TRY and US\$)

Between 2016 and 2020, the annual average growth of the industry on TRY basis was 19%.

## ICT Market Size in Turkey

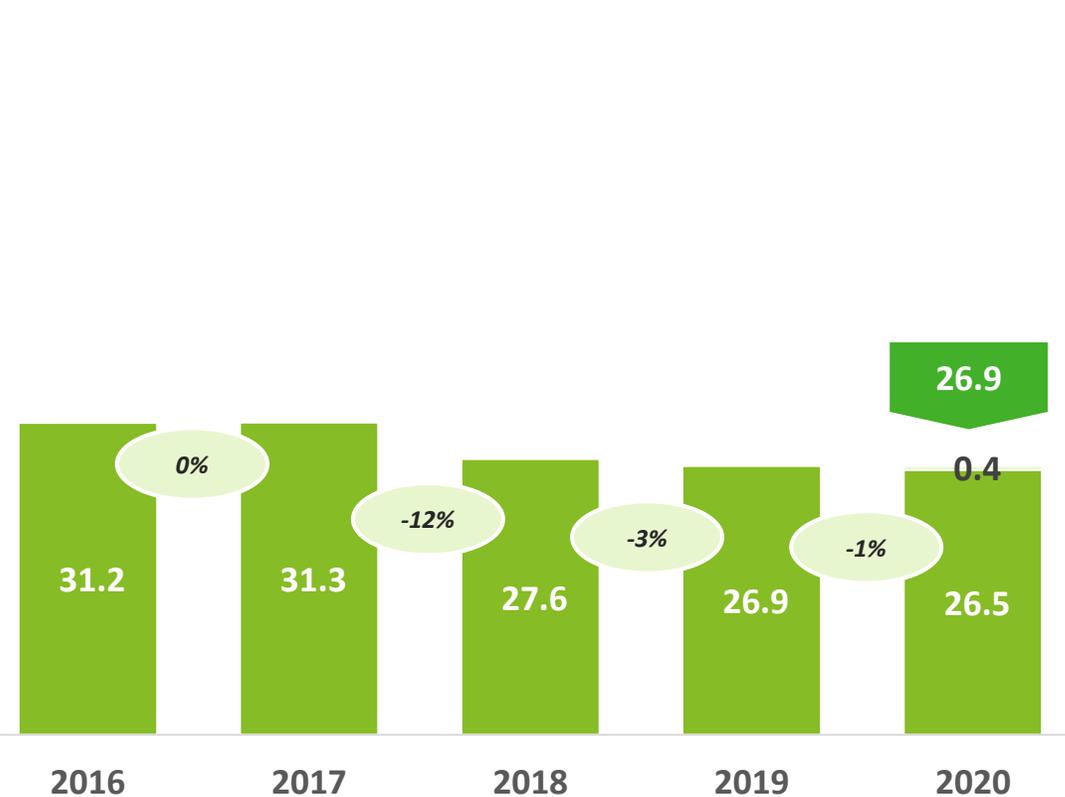
(billion TRY)

Annual Avg. Growth:  
19%



(USD bn)

Annual Avg. Growth:  
-4%



Size of newly added companies this year

Size of newly added companies this year

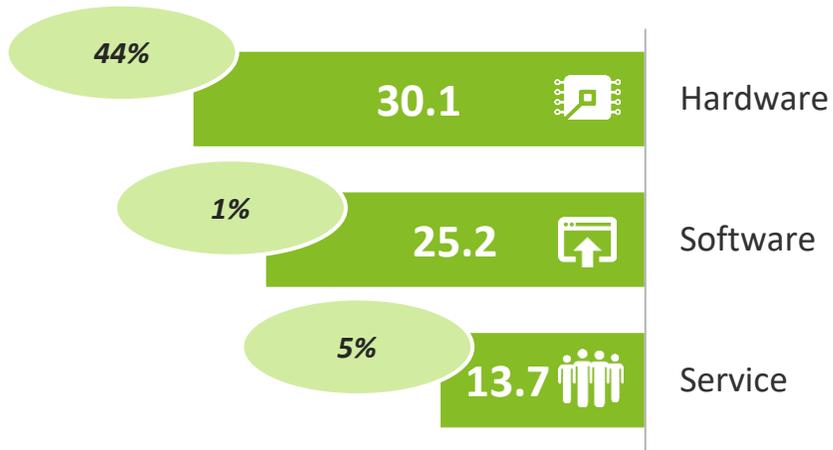
Annual changes refer to comparable growth rates.

Note: Sums may differ due to rounding.

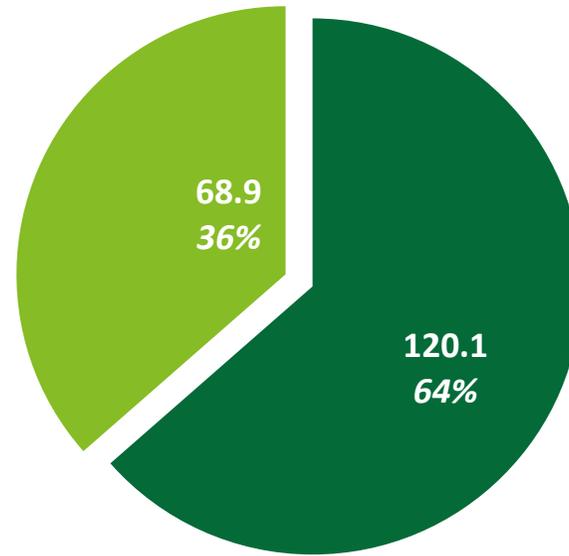
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# Information and Communications Technology Industry Subcategories

## Information Technologies (billion TRY)

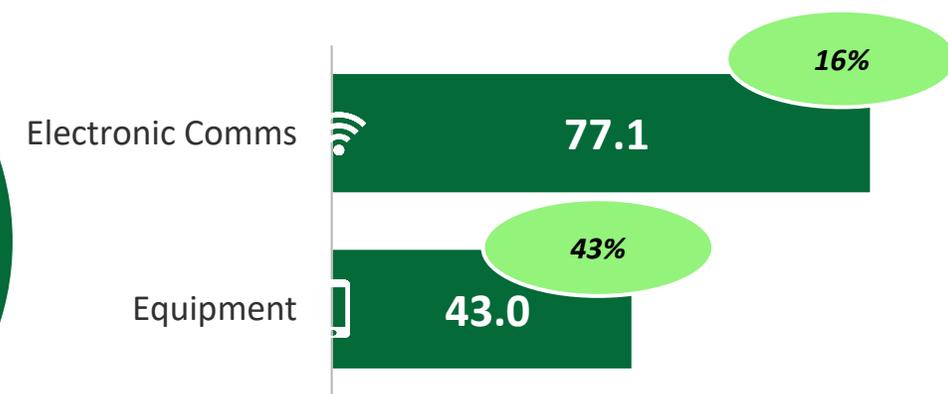


**18%**  
2019-20  
Growth Rate



**2020**

## Communications Technologies (billion TRY)

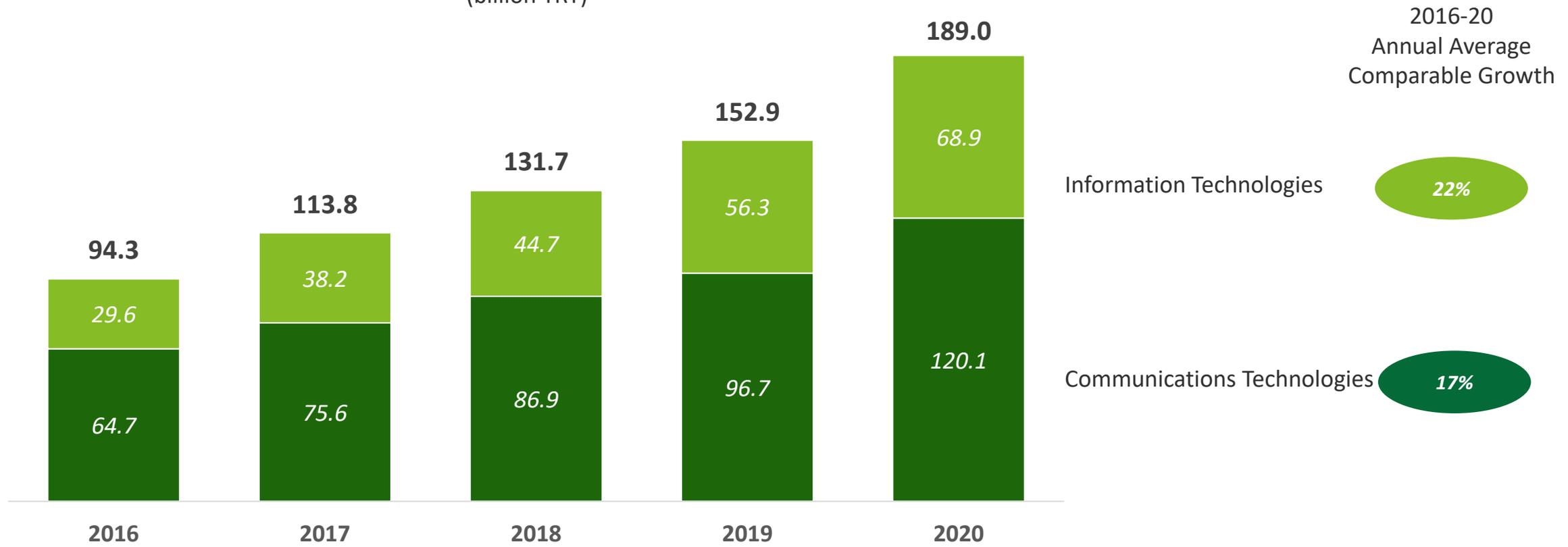


**24%**  
2019-20  
Growth Rate

# Information and Communications Technologies Market Breakdown (billion TL)

Information Technologies grew faster between 2016-2020 compared to Communication Technologies.

ICT Market Size in Turkey  
(billion TRY)

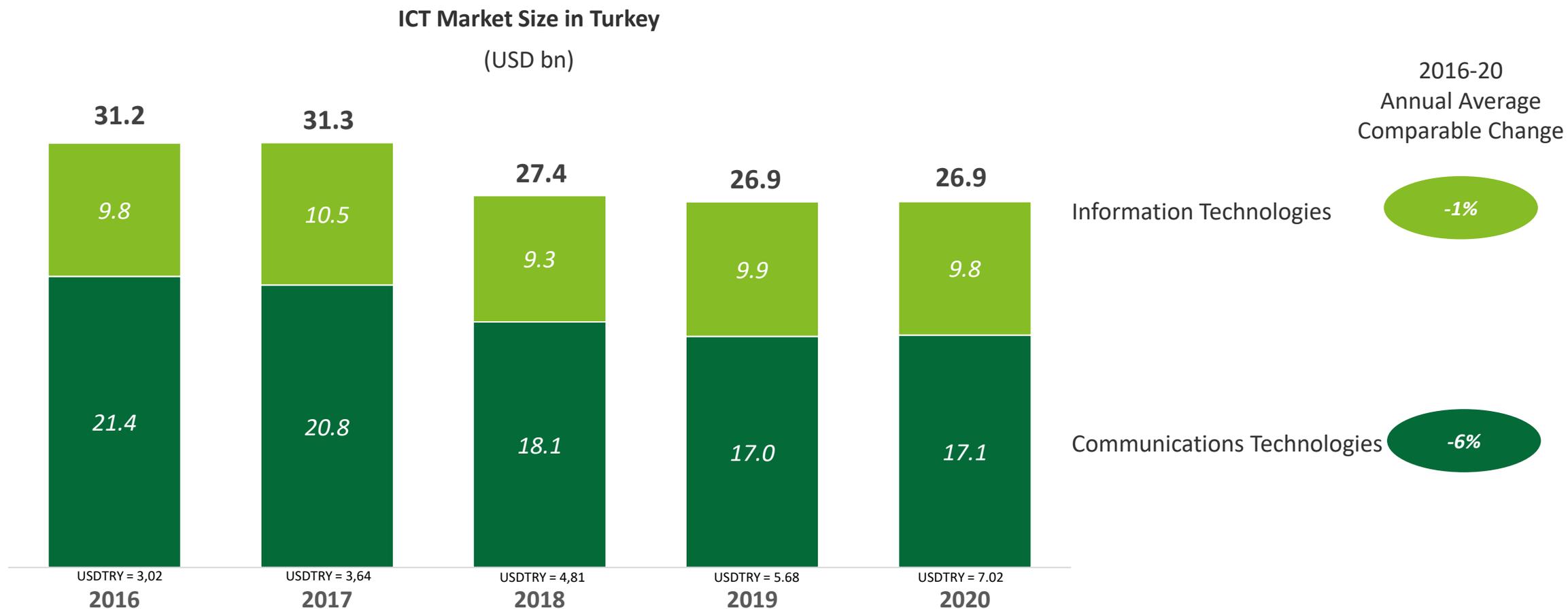


Note: Sums may differ due to rounding.

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# Information and Communications Technologies Market Breakdown (USD bn)

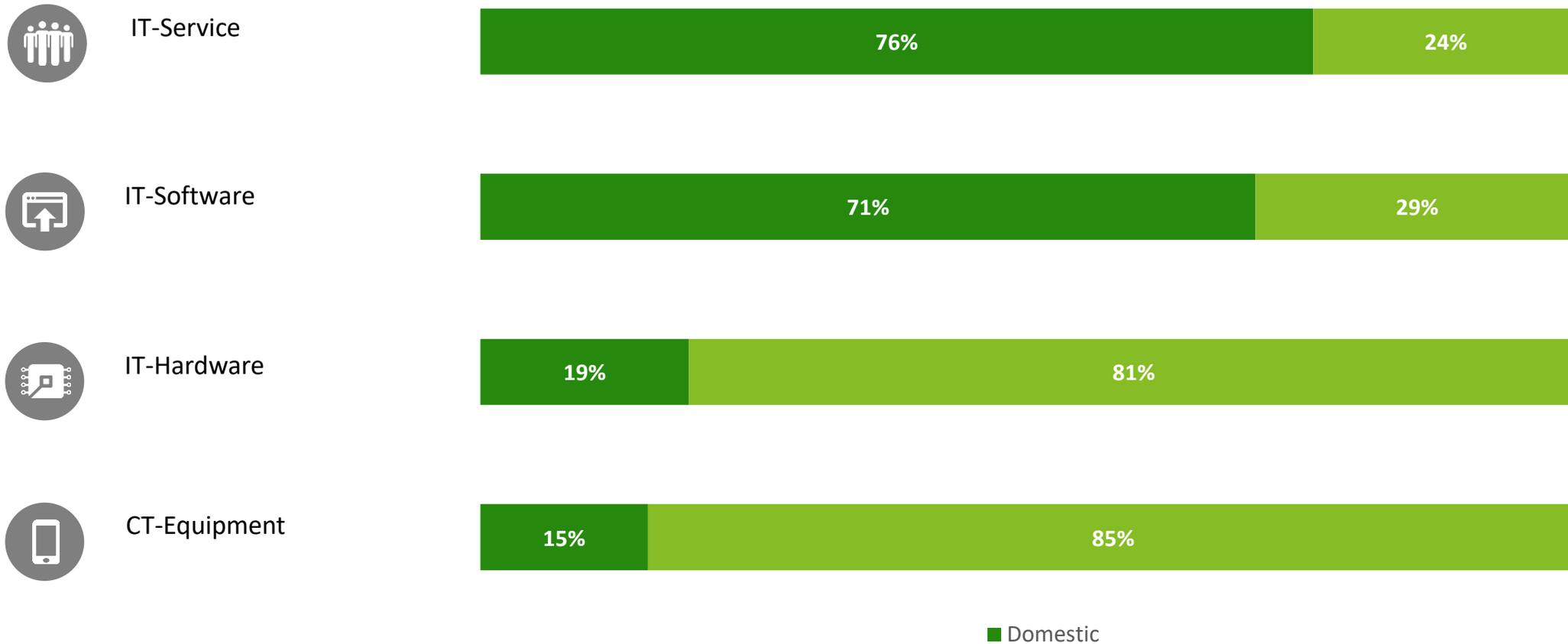
The increasing exchange rate had a negative impact on the sizes of both Information Technologies and Communication Technologies.



Note: Sums may differ due to rounding.

# Origins of Products and Services in 2020

The weight of domestic products is higher in service and software categories within Information Technologies.



# Technology Development Zones (Technoparks)

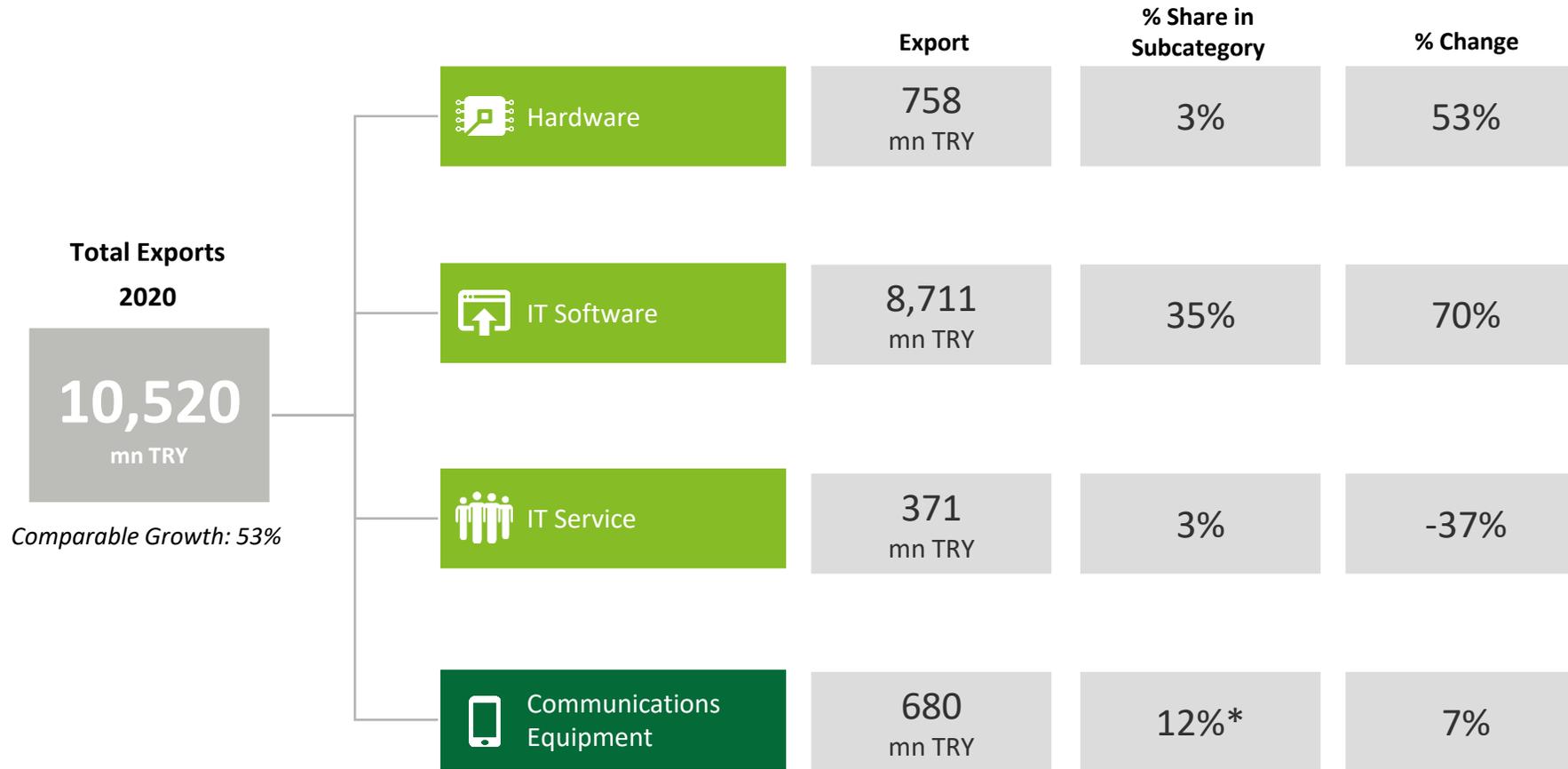
Technoparks in Turkey	2020	2021	% Change
Number of Technoparks	84	87*	4%
Number of Companies	5,673	6,267	%11
Number of Employees	58,313	64,866	%11
Total Revenues (bn TRY)	22.9	20,8	-9%
Total Exports (bn TRY)	4.5	7,7	71%
<i>Revenue per Company (million TRY)</i>	4.0	3.3	-18%
<i>Revenue per Employee (thousand TRY)</i>	392	321	-18%
Exports per Technopark (million TRY)	54.0	88.6	64%
Exports as a share of Revenues	20%	37%	+1700 bps

Source: Republic of Turkey, Ministry of Industry and Technology

\*72 of the 84 Technology Development Zones have been continuing to operate, while 15 are not operating due to ongoing infrastructure work.

# ICT Industry Exports

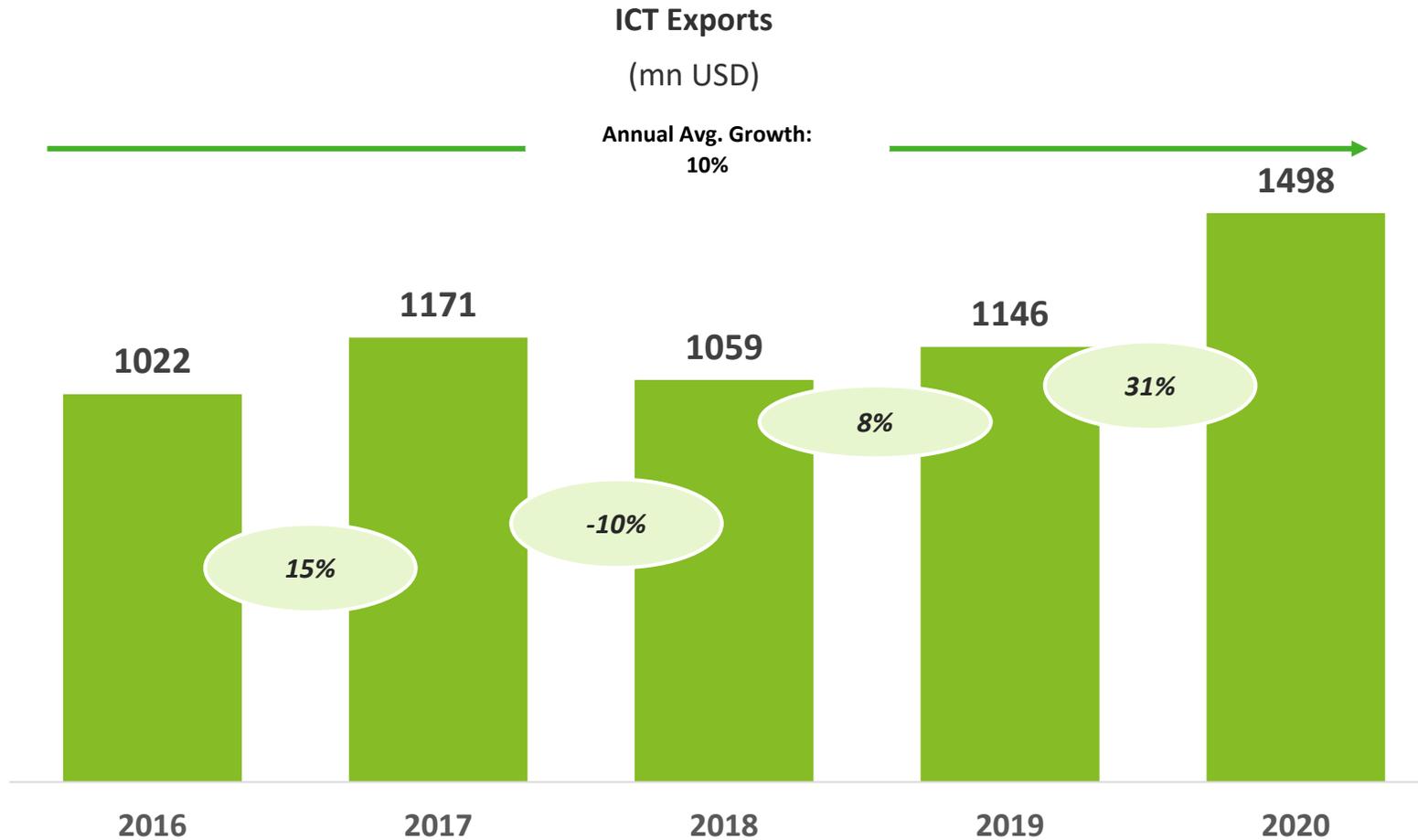
The largest share in total exports is that of the Information Technologies Software category.



Mobile phones are excluded.  
 Annual changes refer to comparable growth rates.  
 Note: Sums may differ due to rounding.

# ICT Industry Exports

The total exports of the industry grew by an average of 10% annually on dollar basis between 2016 and 2020.



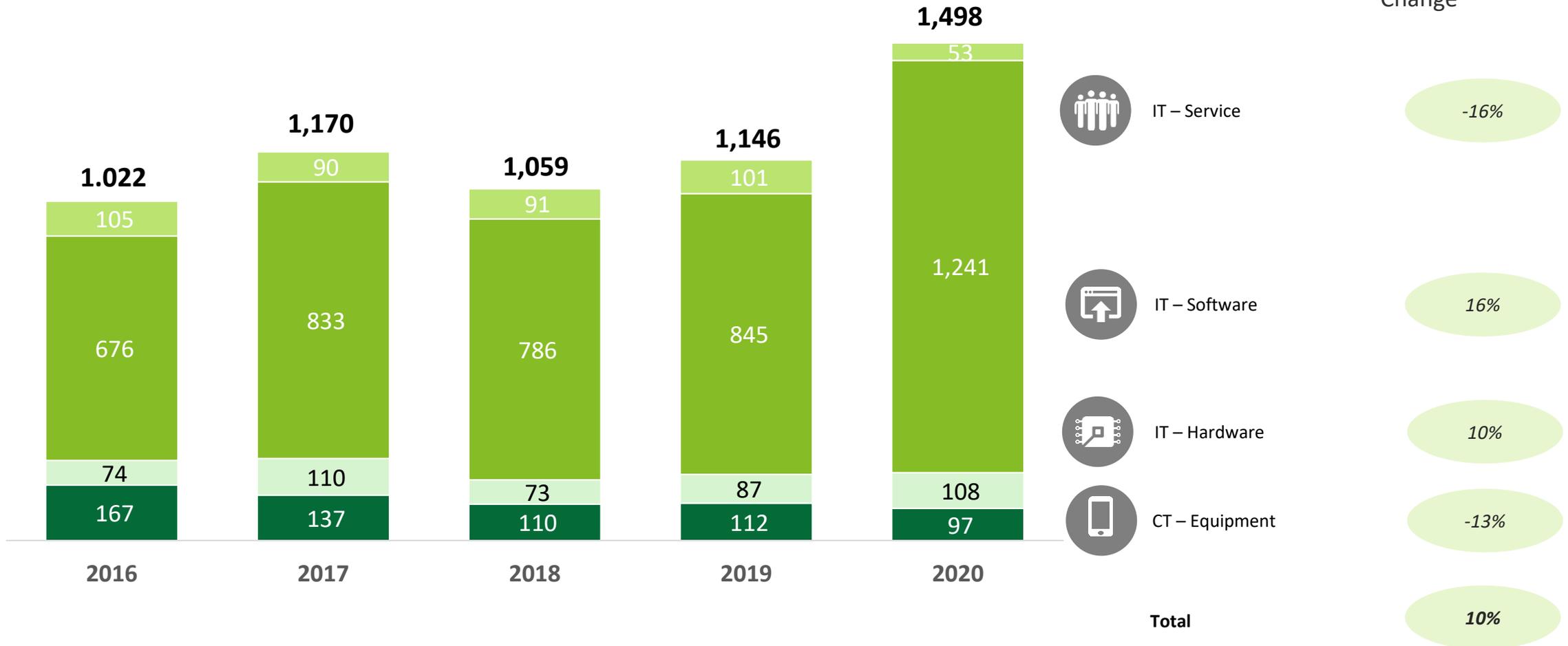
- While the total size of the industry decreased by 1% in dollar terms in 2020, the total exports of the industry increased by more than 30%.
- A decrease was observed in the exports of the communication technologies group in 2020, while the information technologies group provided the growth in exports.
- The most important factor driving the increase is the growth in the Information Technologies – Software category, which also has the largest share in exports.

# ICT Industry Exports

Development of sub categories - mn USD

ICT Exports  
(mn USD)

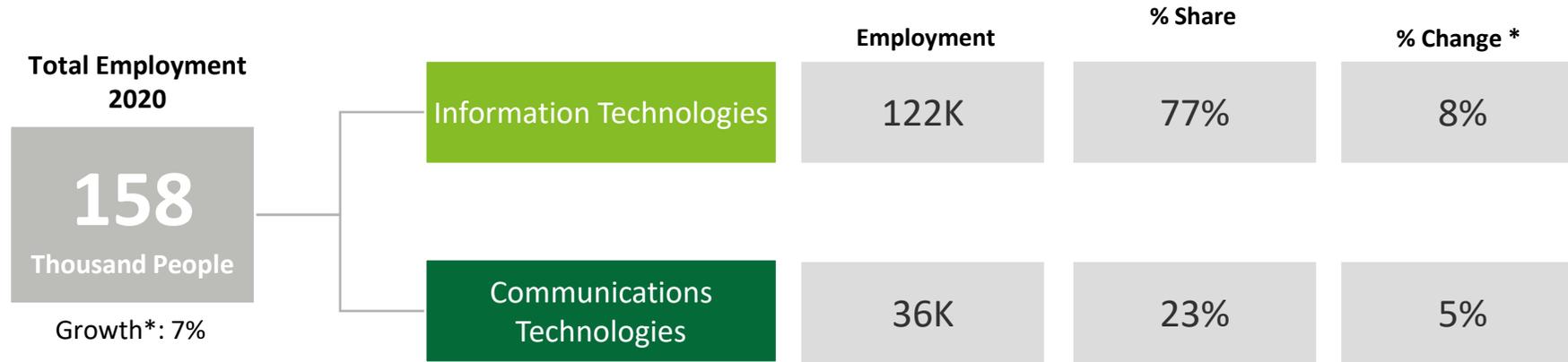
2016-20 Average Rate of Change



Note: Sums may differ due to rounding.

# ICT employment in thousands

The total jobs in the industry reached 158 thousand in 2020 with a growth rate of 7%.



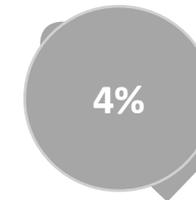
% of female employees\*\*



% of university-graduate employees\*\*



% of R&D employees\*\*



% of Subcontractors\*\*

\*Growth rates represent comparable rates. (Calculated by excluding surveyed firms for the first time this year.)

\*\* : Based on survey responses and BTK data

## 2020 Information and Communication Technologies Industry (billion TRY)

Total Exports  
**10.5**

Total Market Size  
**189.0**

Total Employment  
**158k**

### Information Technologies

**68.9**

### Communications Technologies

**120.1**



Hardware

**30.1**



Software

**25.2**



Service

**13.7**



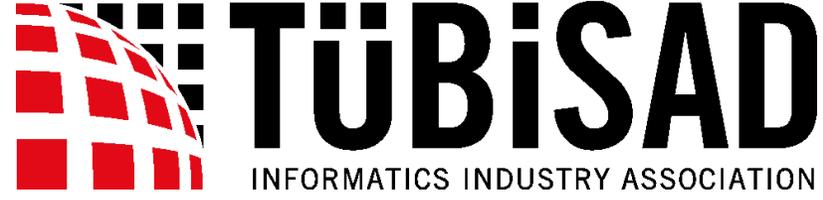
Equipment

**43.0**



Electronic Comms

**77.1**



## Thank You

We would like to thank the  
Ministry of Industry and Technology,  
BTK,  
Context,  
TÜBİSAD members and sector companies for their valuable contributions.

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