

Information and Communications Technologies (ICT)

2019 Market Data

June 2020

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Turkish Information and Communications Technologies total market size

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Exports, employment, types and value of incentives utilized, factors driving growth, major issues faced in the sector, investment and impact areas, etc.

Project stakeholders

Project Consultant

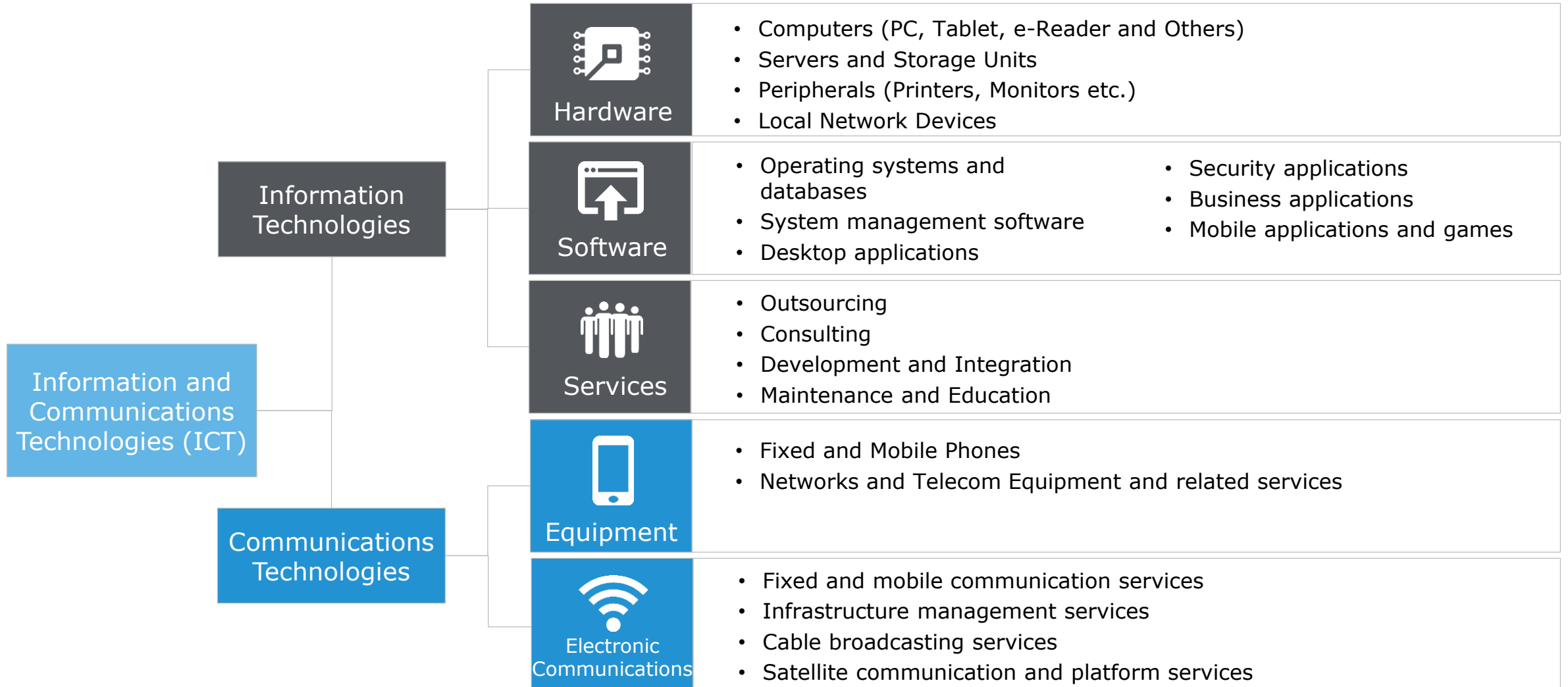
Deloitte.

Project Data Providers

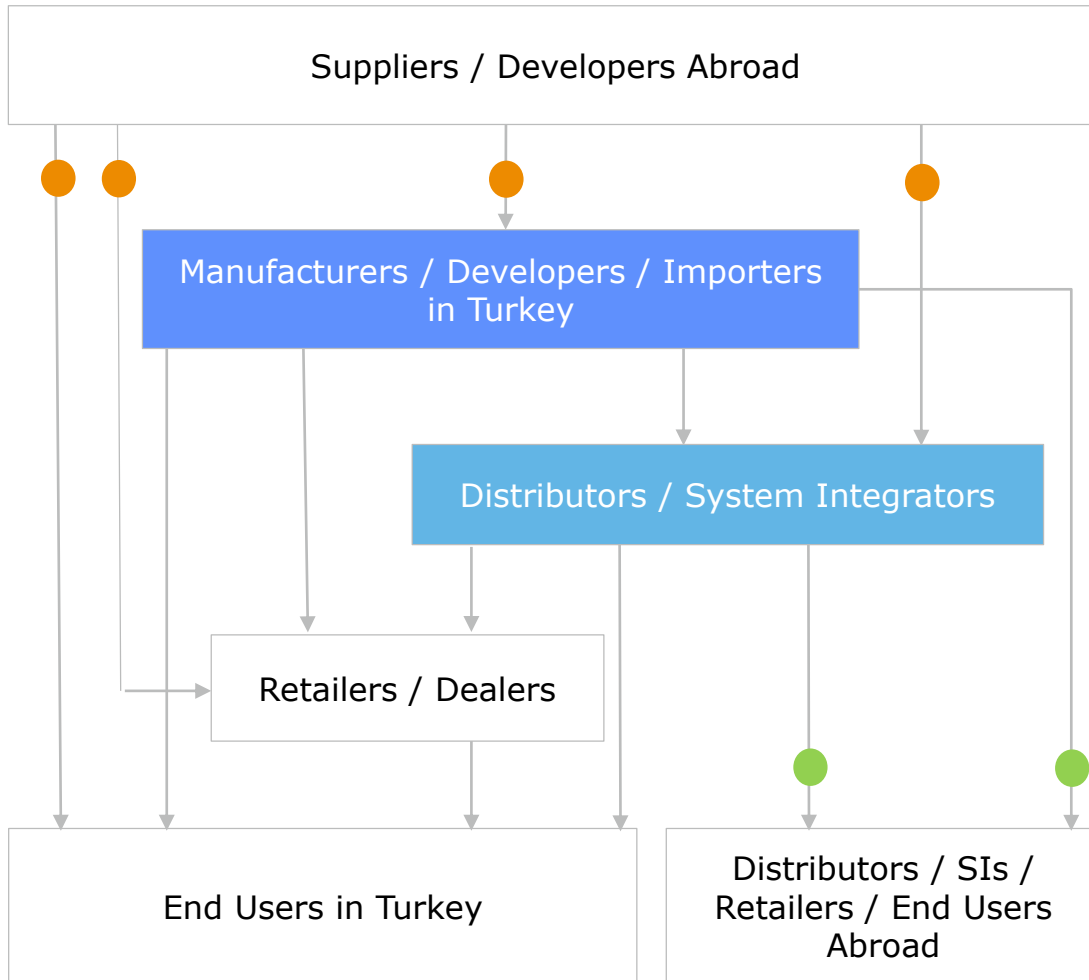


Project scope

TUBISAD's Market Data study, which has been conducted since 2012, has been performed with Deloitte with a standardized scope and methodology for the last 7 years



Measurement methodology



Sector size is calculated and verified through a bottom-up approach.

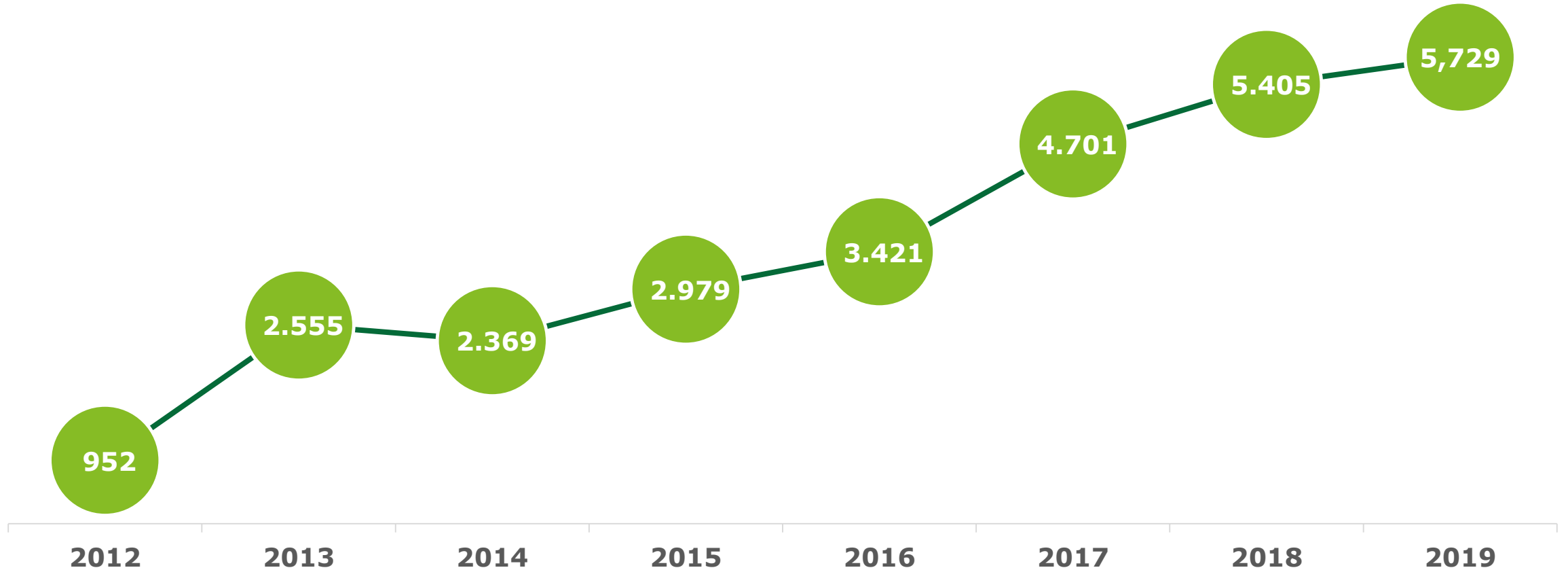
In addition to the data provided by our sector companies through a comprehensive survey, data from institutions such as BTK, Context, SASAD and the Ministry of Industry and Technology are also utilized.

- Company and sector data are measured properly to avoid any overlaps or duplicate calculations
- Company data are gathered together with different breakdowns:
 - Sales direct to End-users vs through distributors
 - Import vs export
 - Origin of products and services
 - R&D center share

● = Import
● = Export

Sector players in the scope of the study

Market data is provided by sector companies. The number of companies whose data is being measured within the scope of our work has increased 5 times over the last seven years and reached 5,729 in 2019

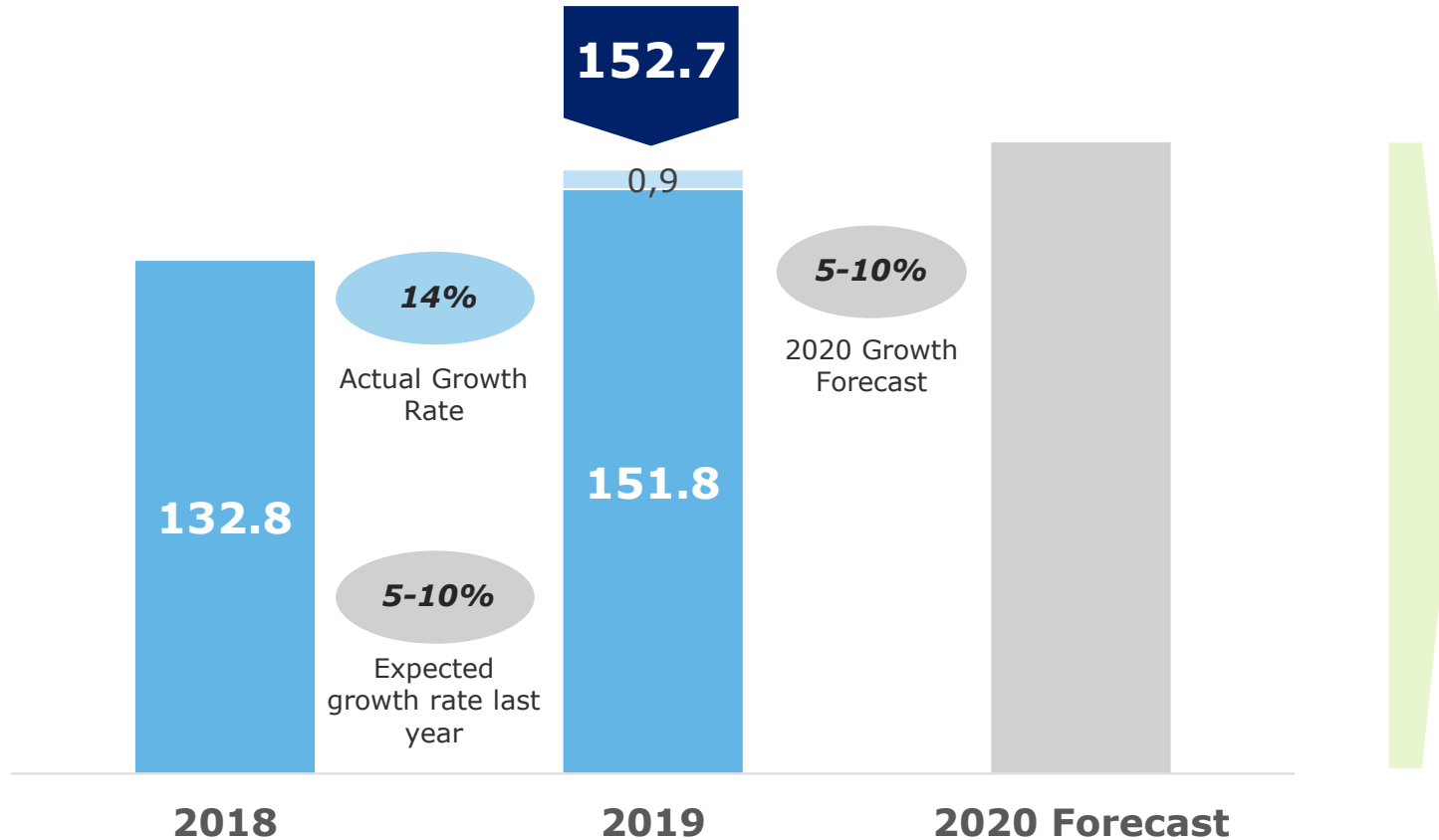


Total sector size (bn TRY)

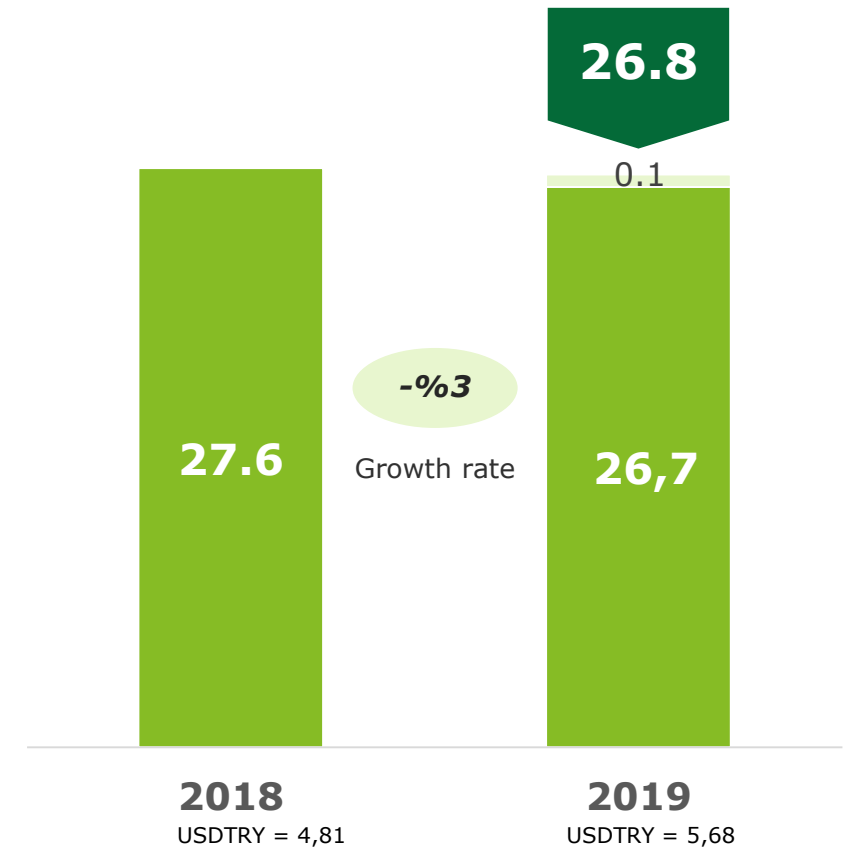
ICT market size in Turkey reached 152.7 billion TRY in 2019 by expressing 14% growth; in USD terms, it declined to 26.8 billion USD by expressing 3% decrease

ICT Market Size in Turkey

(billion TRY)



(billion USD)

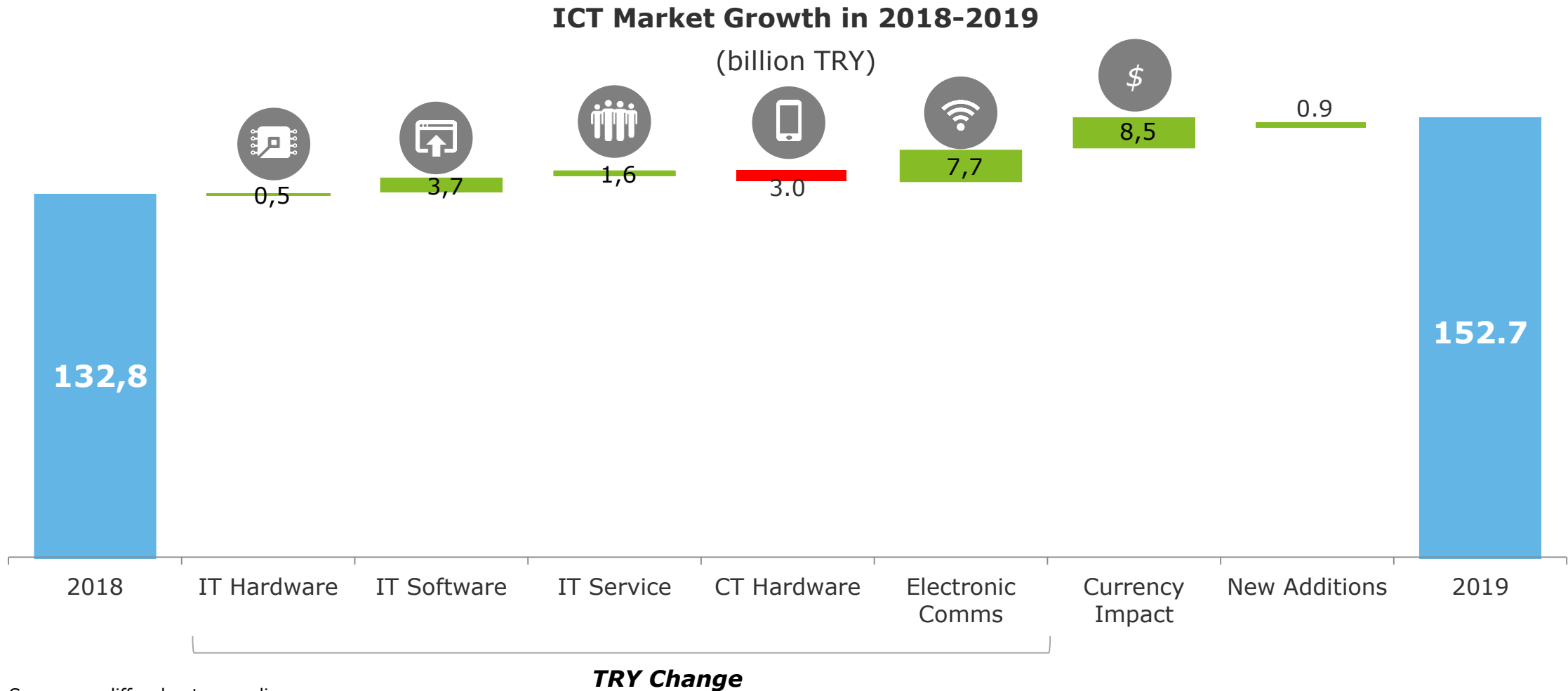


Annual changes refer to comparable growth rates

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 8.5 bn and 7.7 bn TRY, respectively



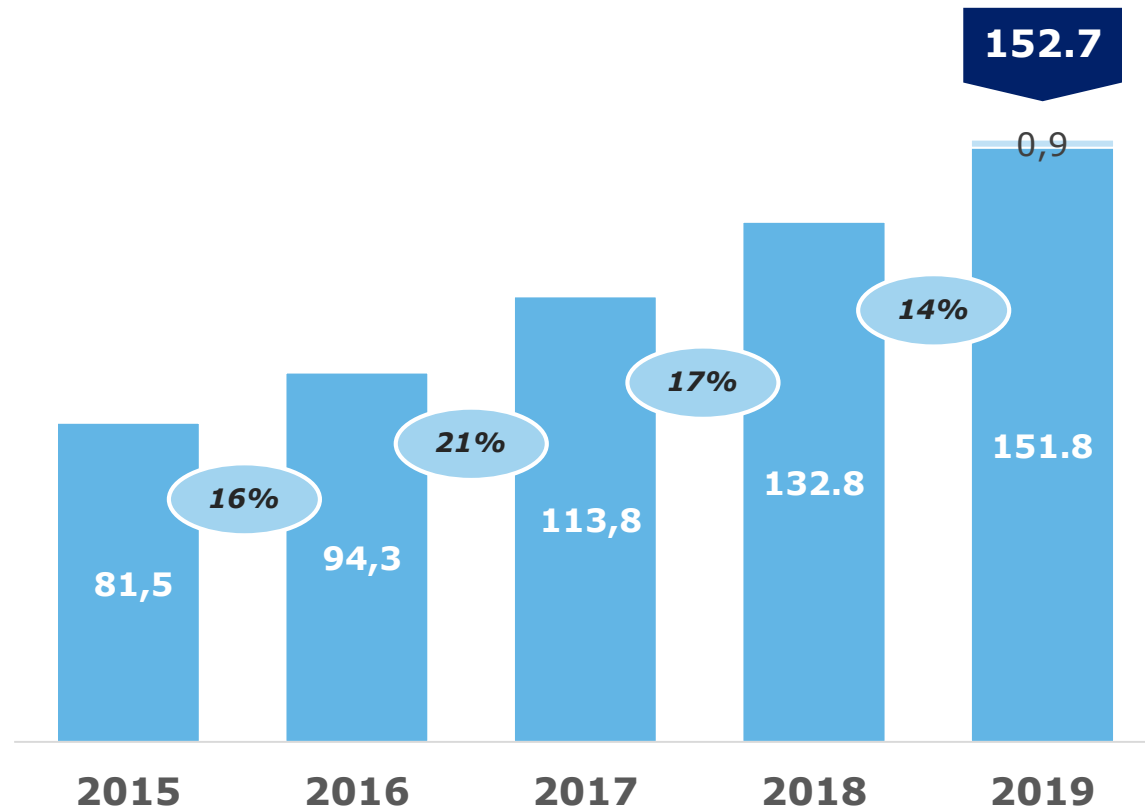
Not: Sums may differ due to rounding.
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2015-2019 sector development (TRY, USD)

ICT Market Size in Turkey

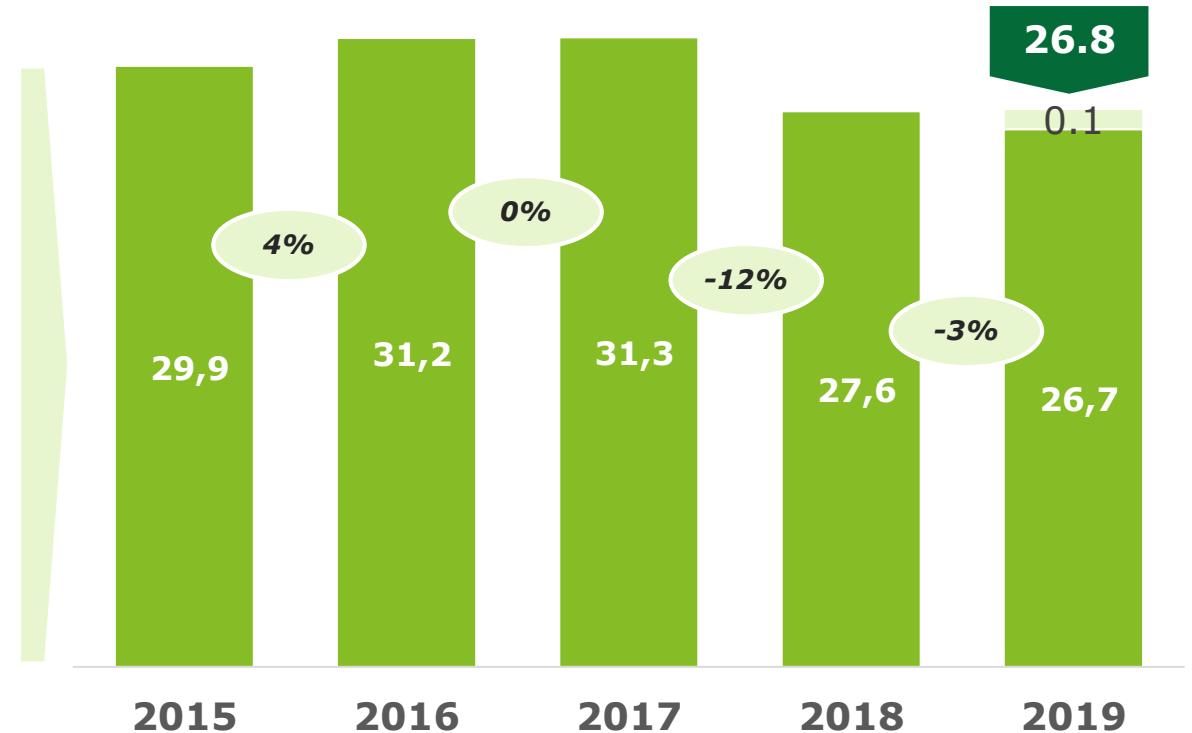
(Billion TRY)

CAGR
17%



(billion USD)

CAGR
-3%

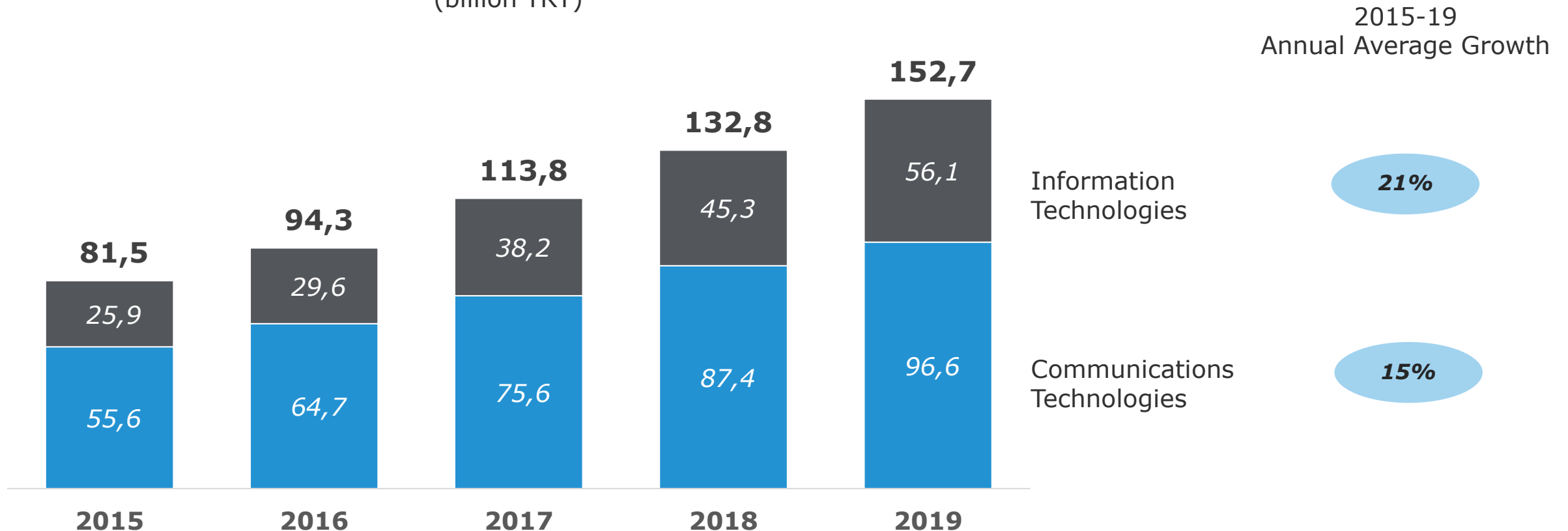


Annual changes refer to comparable growth rates

Size of newly added companies this year

Information and Communications Technologies market breakdown (billion TL)

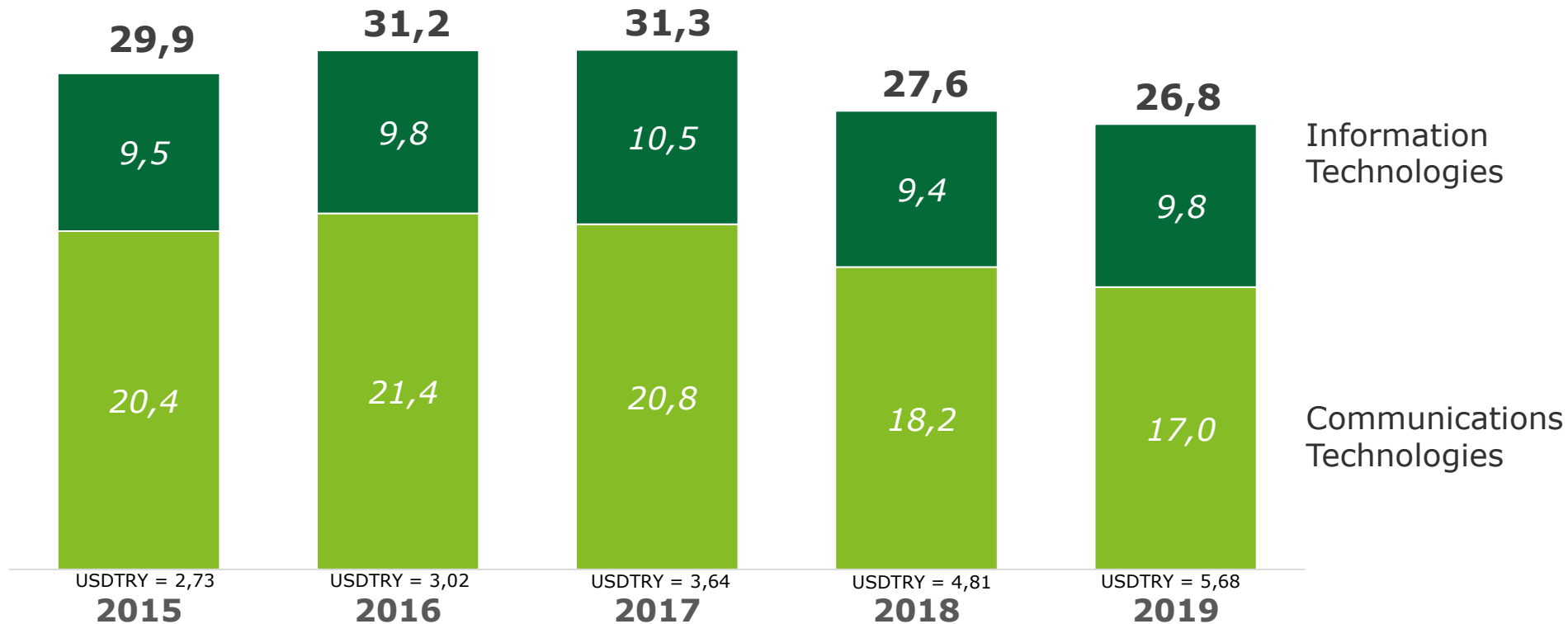
ICT Market Size in Turkey
(billion TRY)



Note: Sums may differ due to rounding. Annual changes refer to comparable growth rates

Information and Communications Technologies market breakdown (USD bn)

ICT Market Size in Turkey
(USD bn)

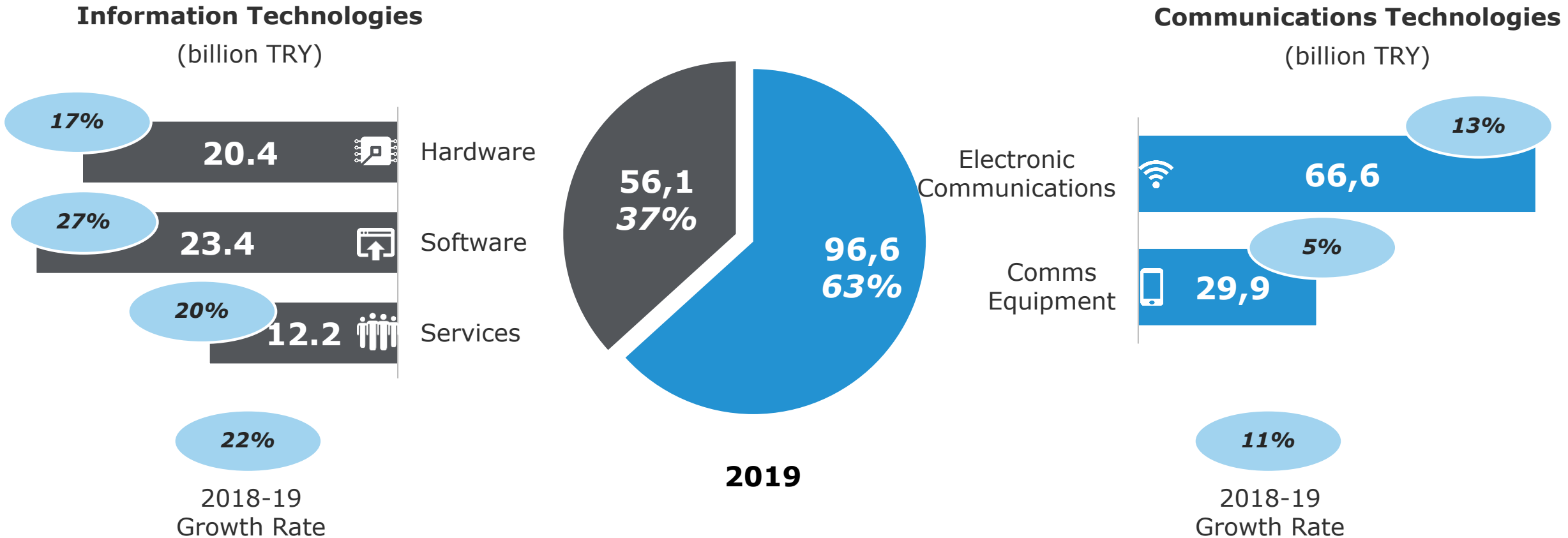


2015-19
Annual Average Change

Information Technologies
1%

Communications Technologies
-4%

Information and Communications Technology sector subcategories

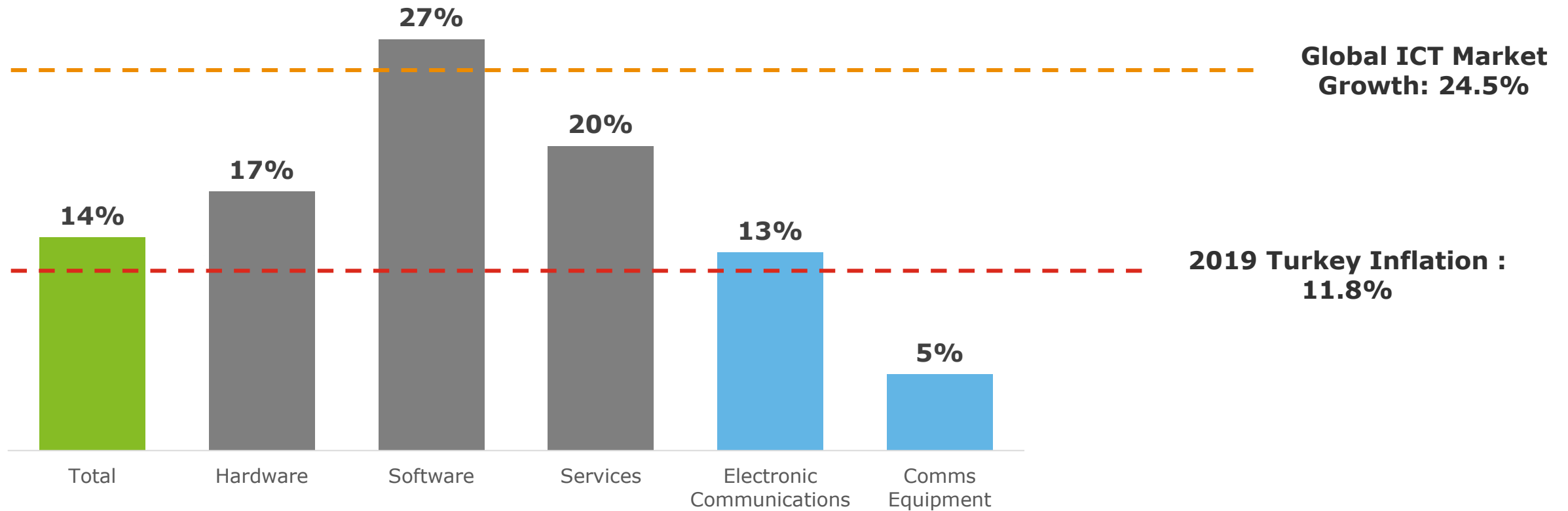


Note: Sums may differ due to rounding. Annual changes refer to comparable growth rates

2019 Growth Performance Comparison

ICT Growth - 2019

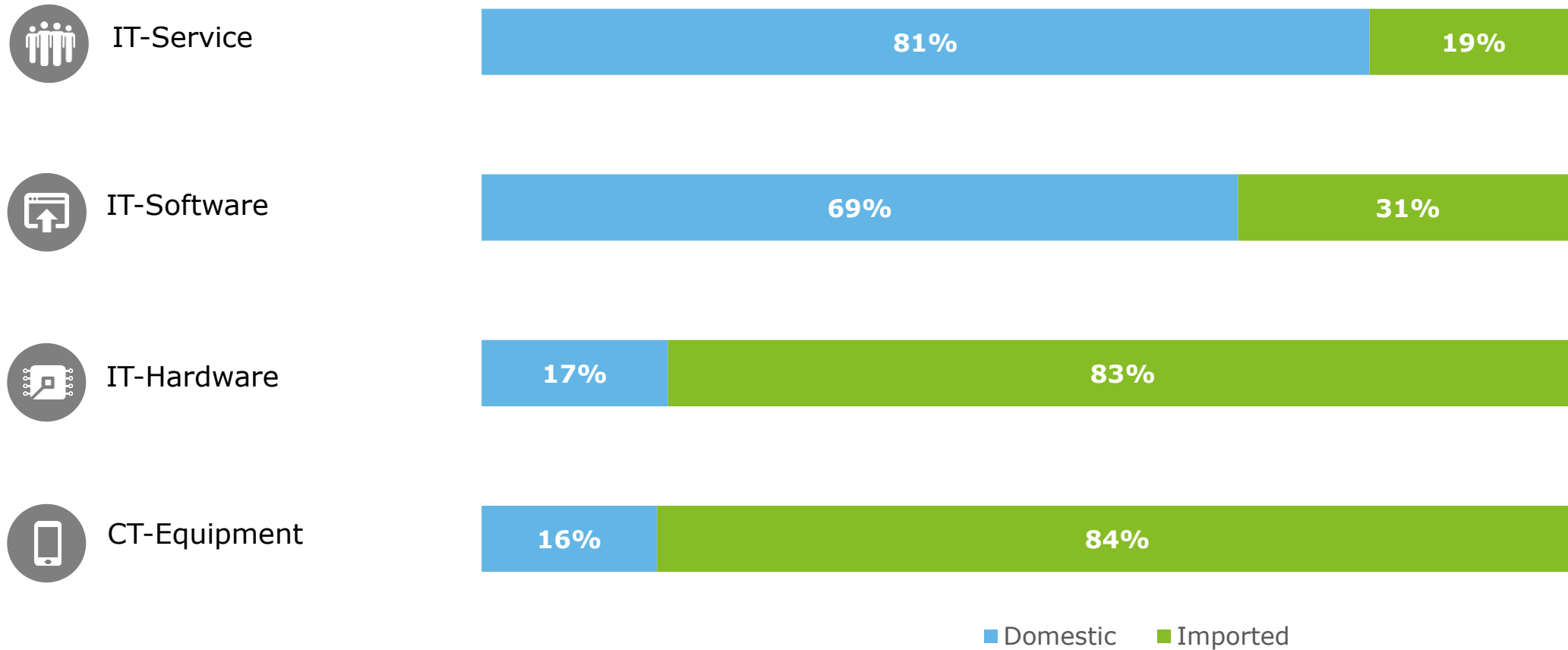
(TRY - % Growth)



Sources: Deloitte analysis, TUIK, IDC

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Origins of product and services 2019



Source: Deloitte analysis

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Technology Development Zones (Technoparks)

14% of the total sector volume was generated through Technoparks in 2019

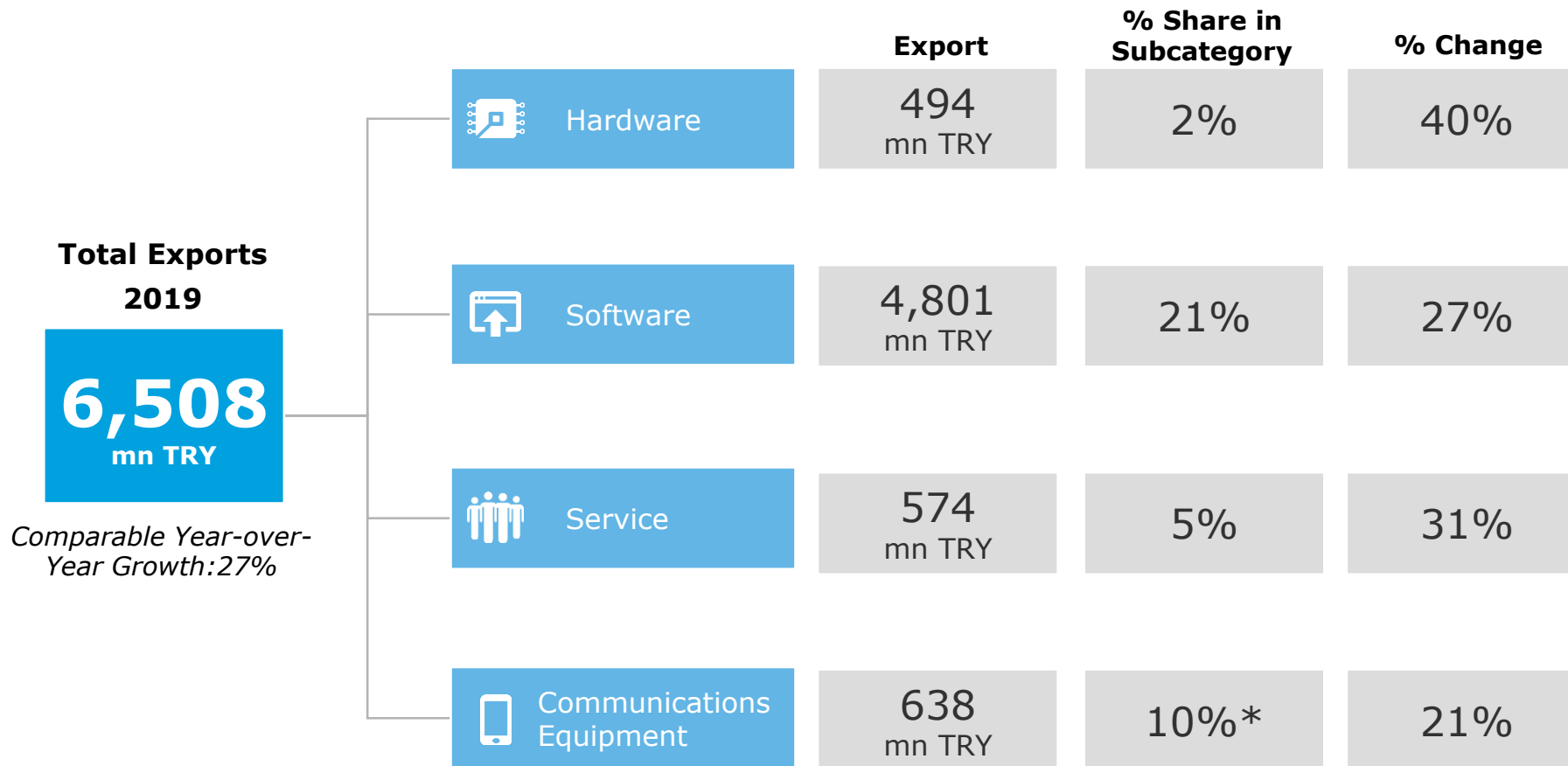
Technoparks in Turkey	2018	2019	% Change
Number of Technoparks	81	84*	4%
Number of Companies	5,334	5,673	6%
Number of Employees	51,574	58,313	13%
Total Revenues (bn TRY)	16.0	22.9	43%
Total Exports (bn TRY)	3.8	4.5	19%
Revenue per Company (million TRY)	3.0	4.0	34%
Revenue per Employee (thousand TRY)	310	392	27%
Exports per Technopark (million TRY)	46.9	54.0	15%
Exports as a share of Revenues	24%	%20%	-370 bps

Source: Republic of Turkey, Ministry of Industry and Technology

*There are 69 operating technoparks. Remaining 15 technoparks are not operating due to ongoing infrastructure construction.

ICT Exports

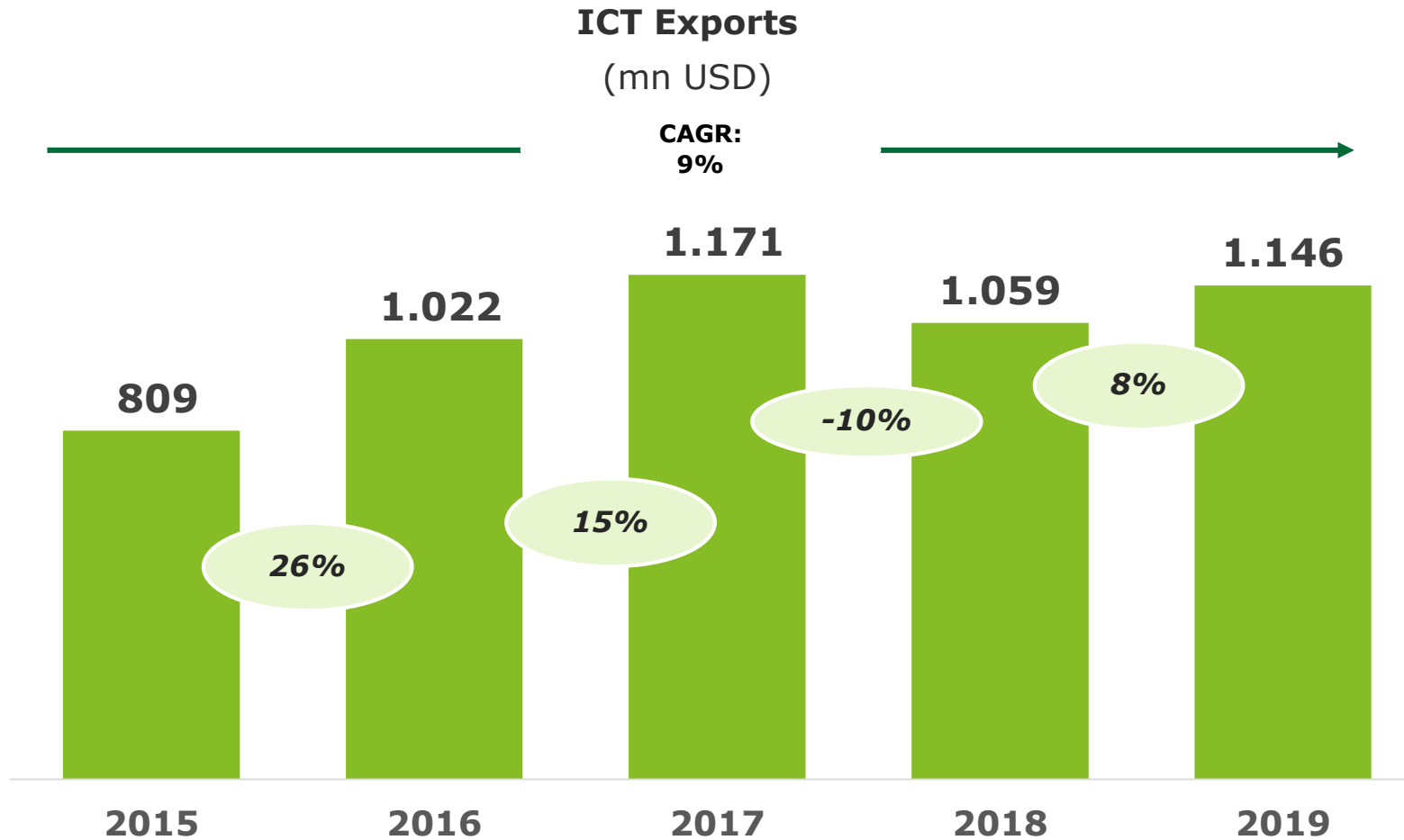
mn TRY



*Mobile phones are excluded.

ICT Exports

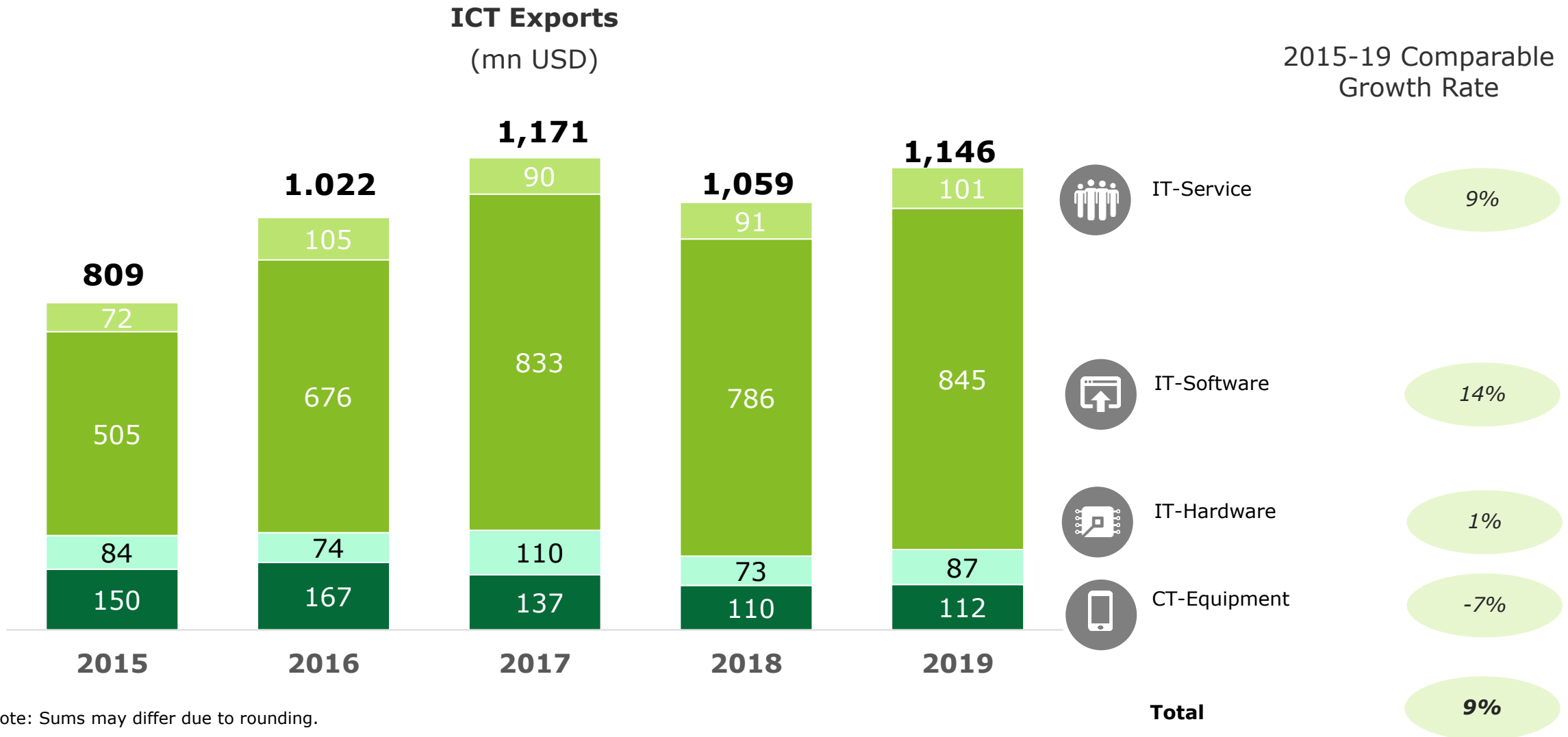
ICT exports have reached USD 1.1 bn level by growing since 2015



- Europe Zone protects its leader position by increasing its share in terms of target market yet domestic firms performed limited efforts in some markets such as leading American market and growing Asia market.
- Technology firms' corporate capacities needed to grow for increasing ICT export. Besides, target market diversification efforts should be supported.

ICT Exports

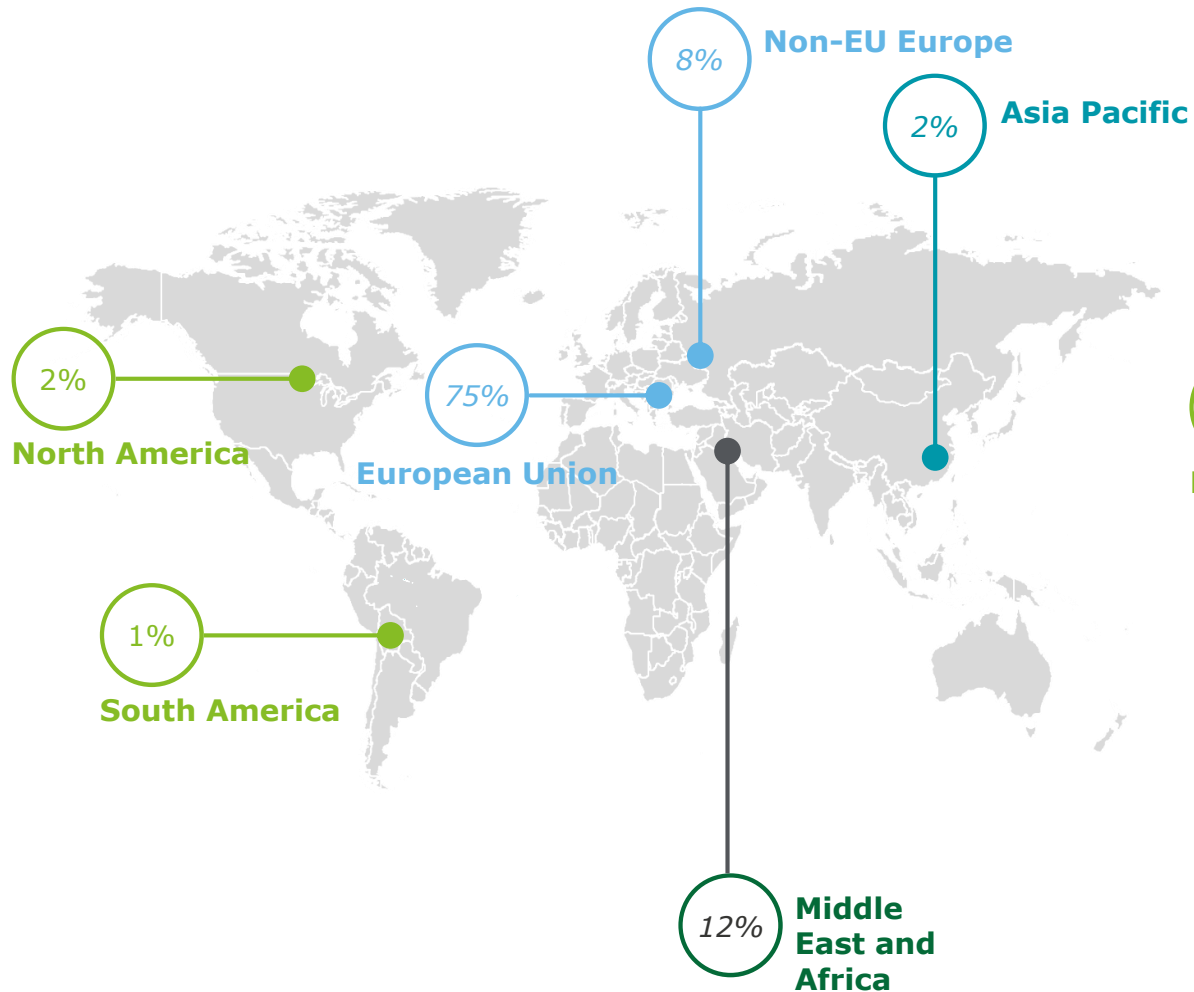
Development of sub categories- mn USD



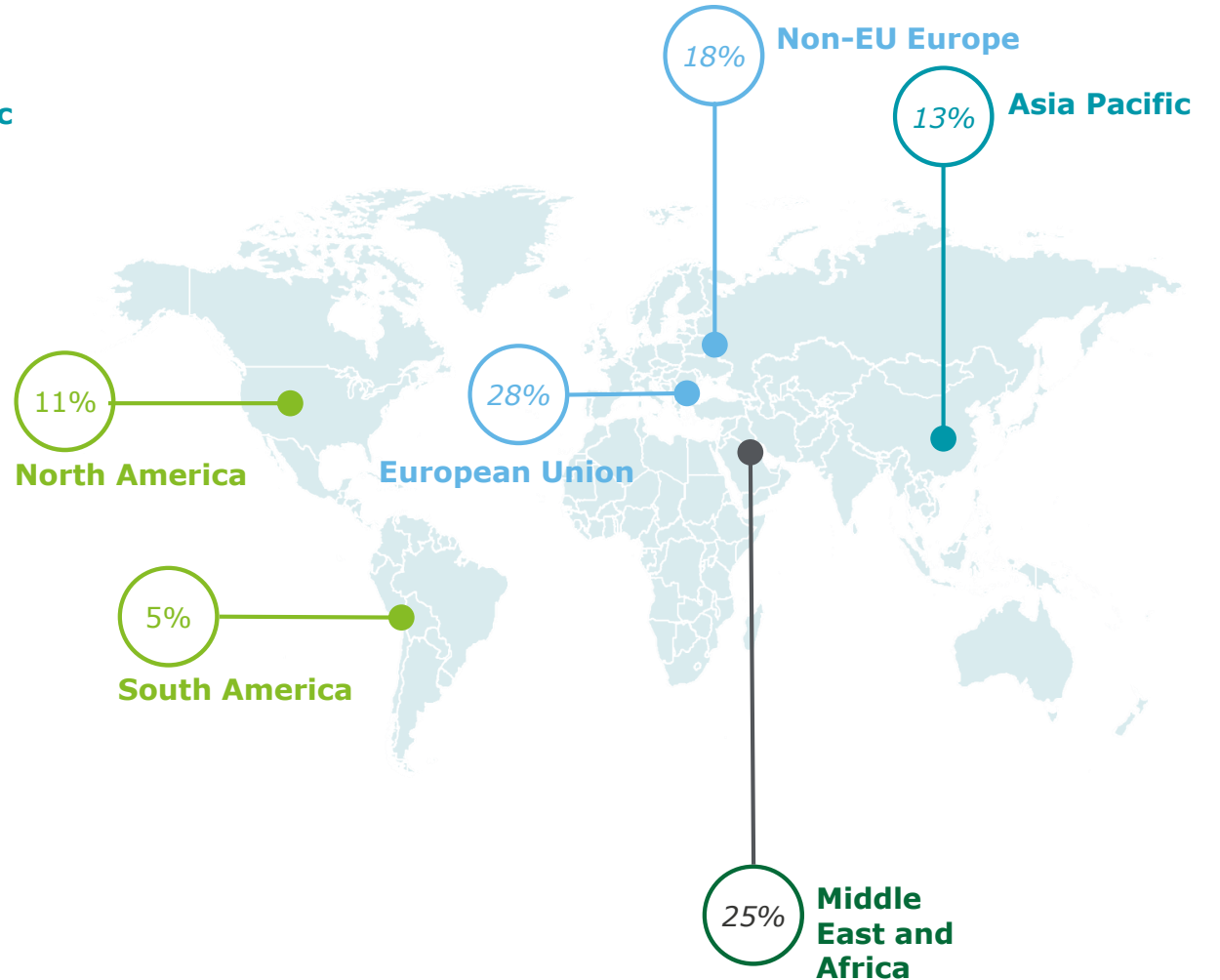
Note: Sums may differ due to rounding.

ICT export destinations and growth opportunities

Breakdown of total exports by region, 2019*



Growth opportunities for next 5 years**

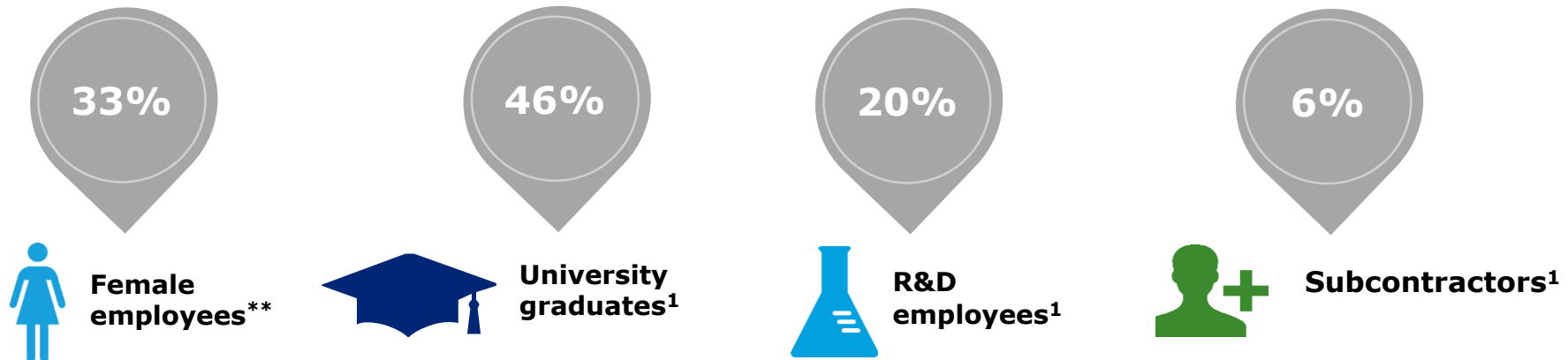
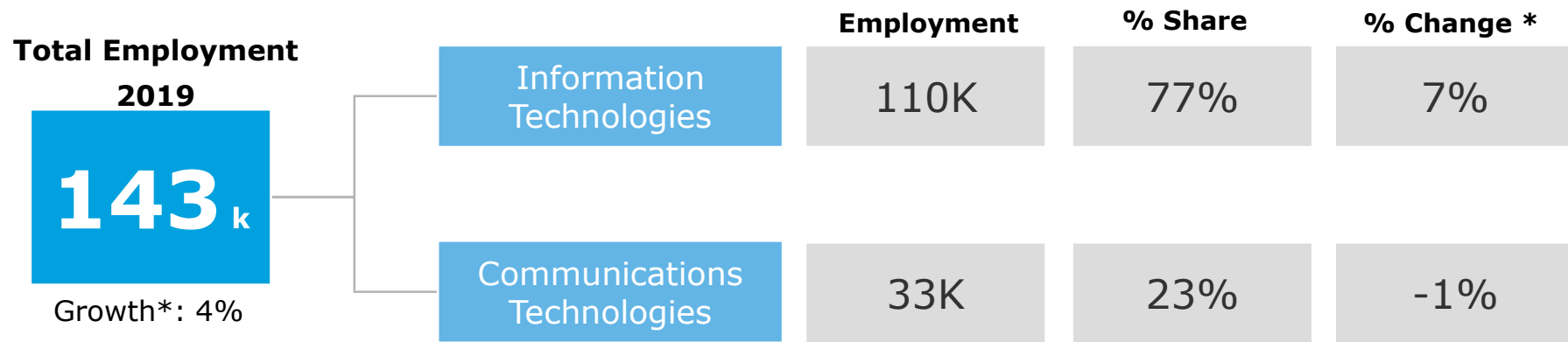


*:Based on responses of 69 firms, breakdown of total exports to regions

** : Question: What are the geographies that include growth opportunities for your sector ?, N=97

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ICT employment in thousands



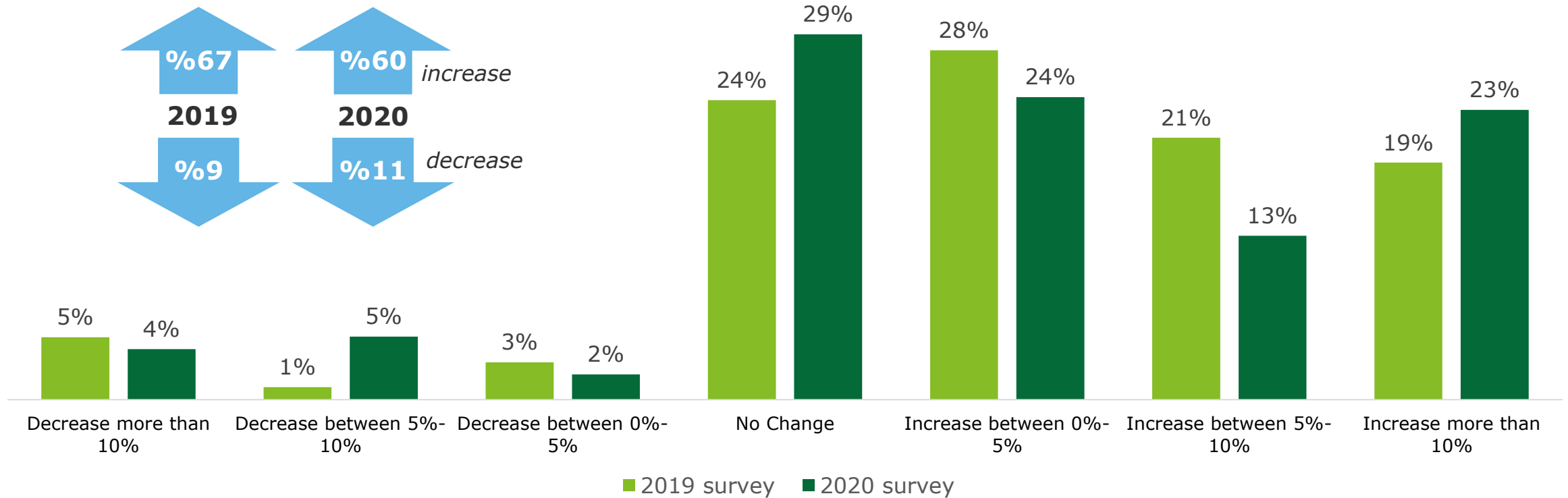
* Growth rates represent comparable rates (calculated by excluding surveyed firms for the first time this year)

** : Based on survey responses and BTK data

ICT employment

Trends over time

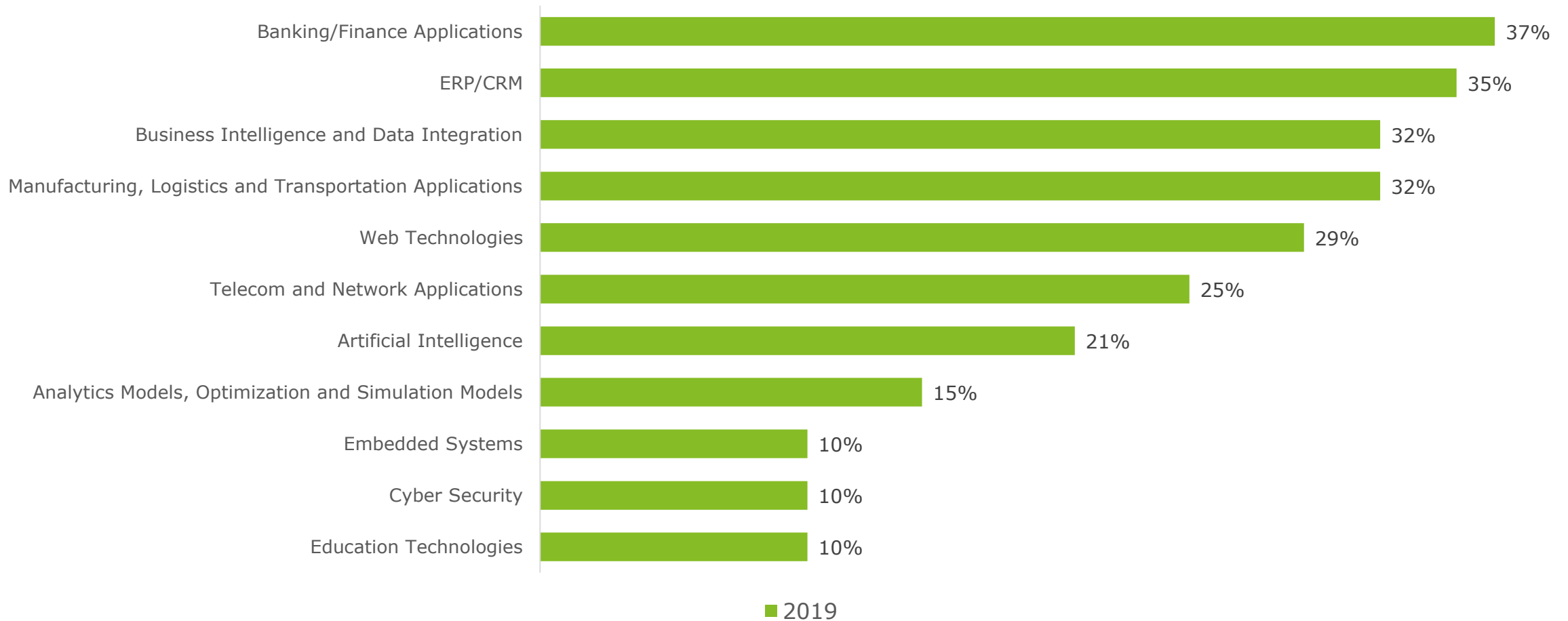
In your view, how is the number of employees for your company likely to change this year?



2020 N = 97; 2019 N = 112

Software development activities in the ICT market

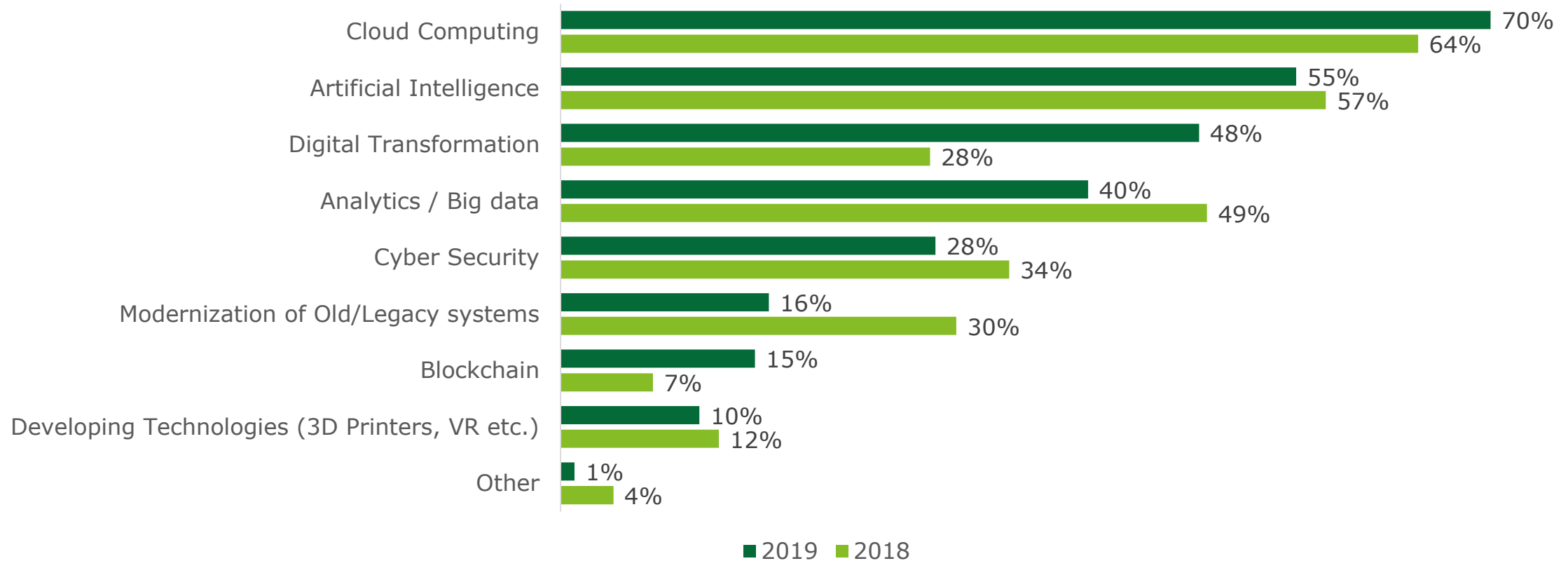
What are the areas in which your company have software development activities ?



Based on response of survey participants whose firms have software revenue

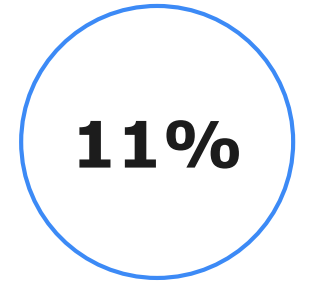
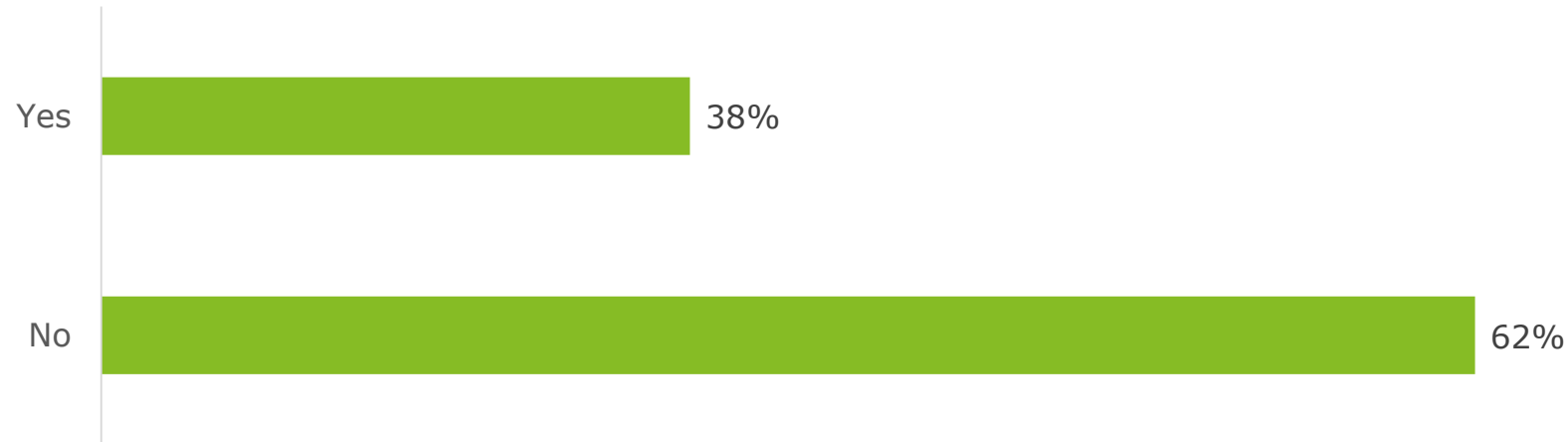
Impact Areas

For the next one year, which of the following technological areas will have the most impact on your sector (Choose at most three answers)



Cloud Computing

Does your business have any cloud computing related revenue in 2019 ?

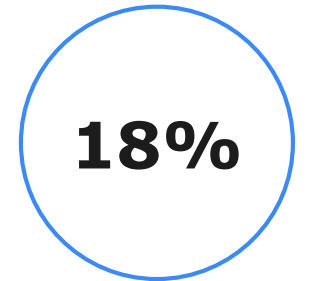
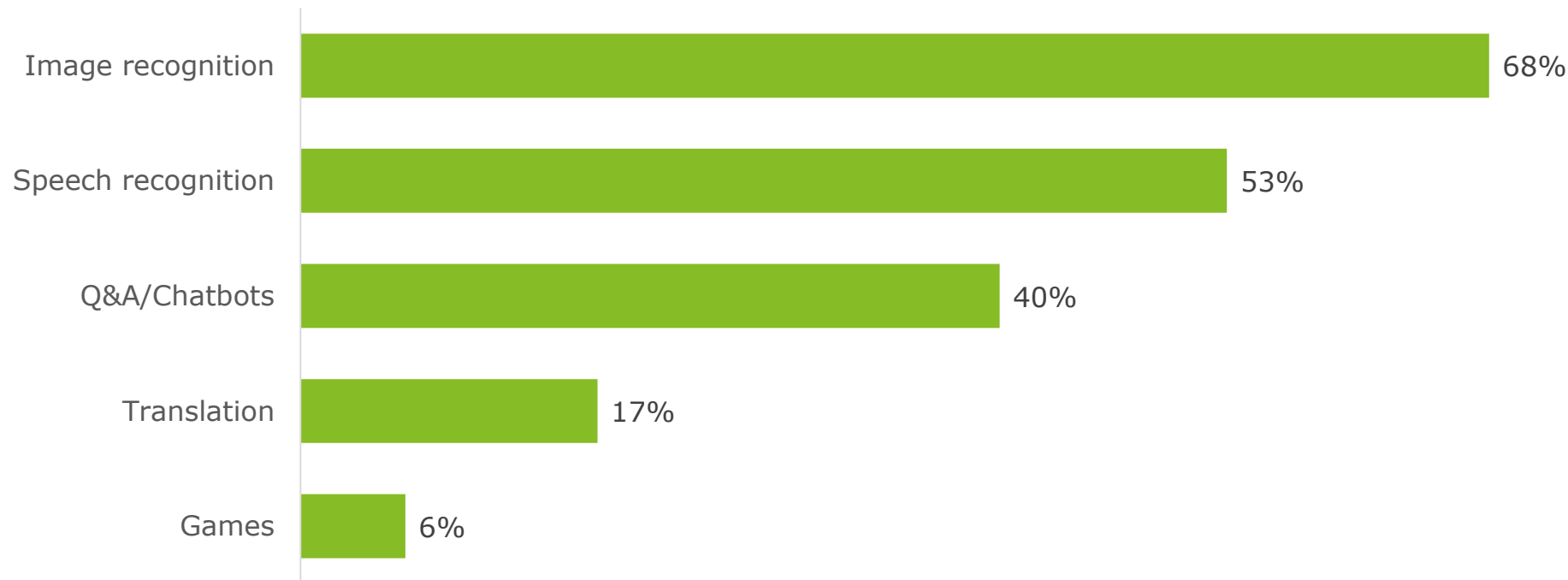


Share of cloud computing in ICT revenue*

* Based on responses of 97 firms answering the question

Artificial Intelligence

Which of the following artificial intelligence applications will have the most impact on your sector (Choose at most two answers)

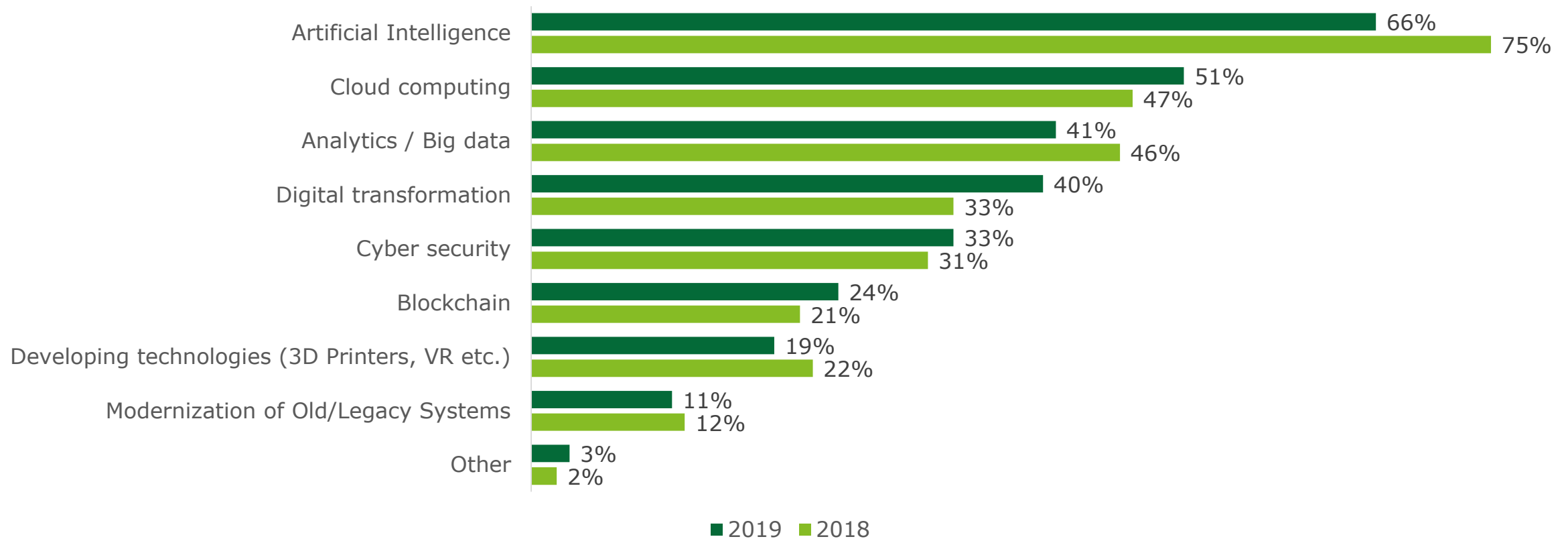


Share of companies which have activity on AI applications*

* Based on responses of 97 firms answering the question

Impact Areas

For the next five years, which of the following technological areas will have the most impact on your sector (Choose at most three answers)*

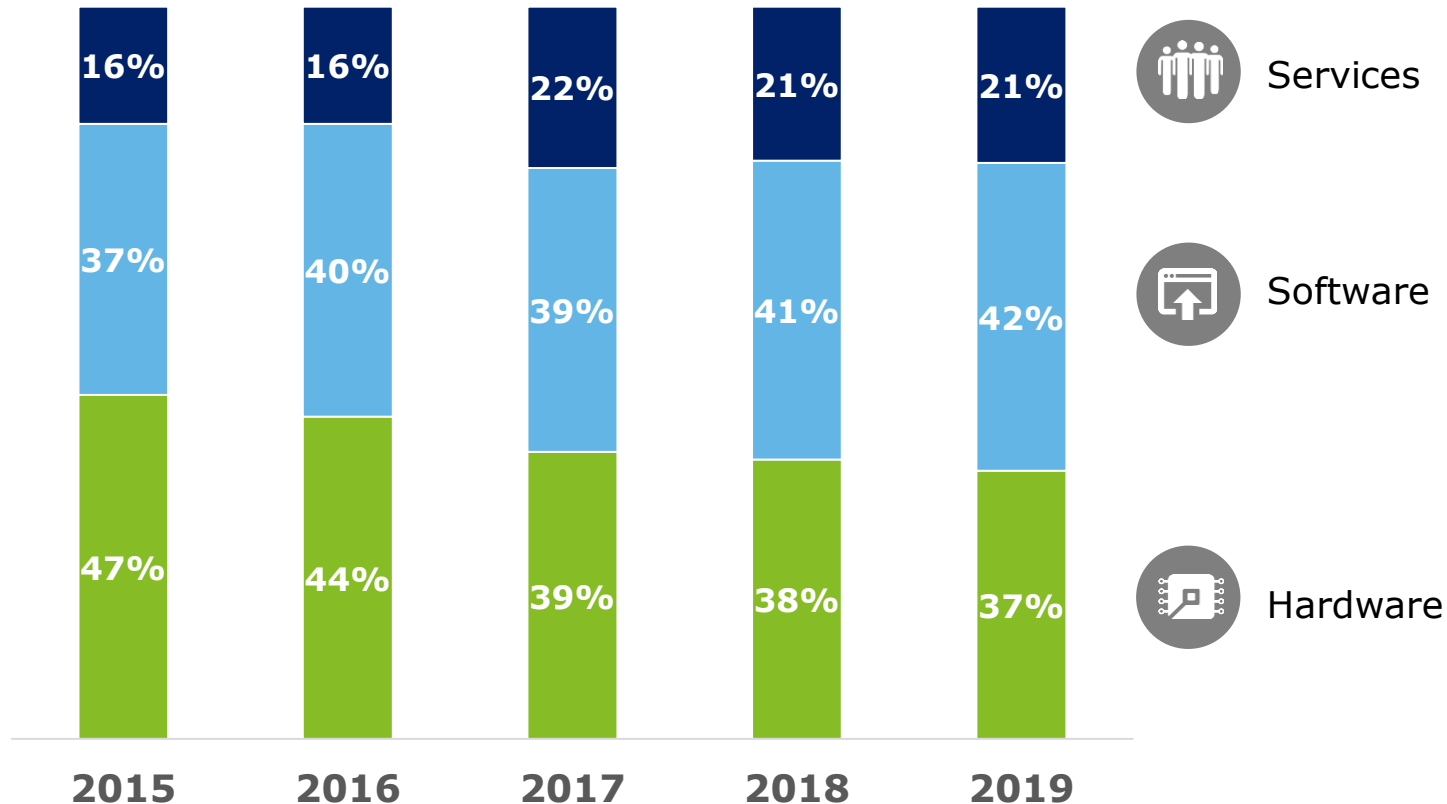


*: N = 97

Shares of subsectors over time

The mix of sector components has been trending closer to that of developed countries since 2015 and the share of value-added activities such as software and services has continued to grow

Information Technologies Market Components

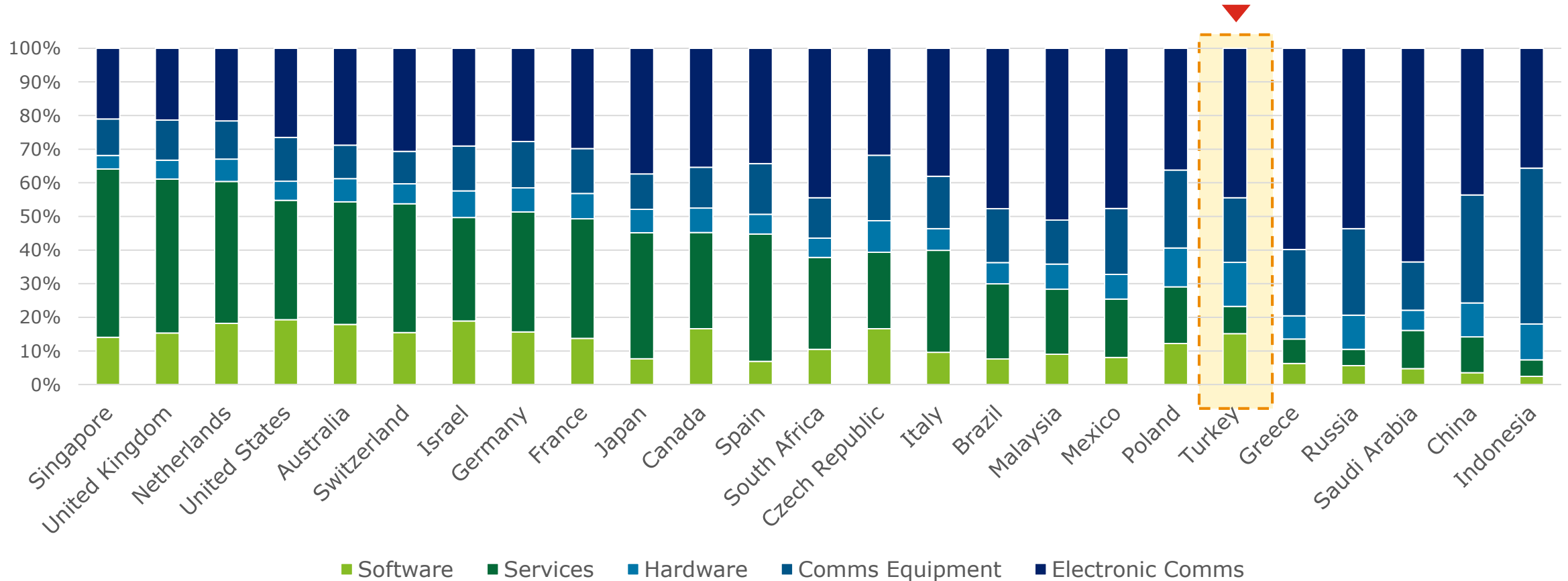


- Although the share of Information Technology remained mostly stable within the total, the distribution of its components has been evolving in favor of value-added sectors as software and services.
- Hardware sales slow down parallel to global trends yet services and software, which have high domestic origin, sales increase.
- In addition to companies' basic numerical transformations in terms of ERP and CRM, increasing analytics and digital transformation investments indicate that this trend will continue to grow for upcoming years.

Shares of subsectors over time

Turkey expresses a similar profile comparing to developing countries in terms of total share of high value added domestic services and software

Information and Communication Market Components



Source: TÜBİSAD, Gartner, Deloitte analysis

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2019 ICT Market in Turkey

bn TRY

2019 ICT Market in Turkey

Total Exports
6.5

Total Market Size
152.7

Total Employment
143k

Information Technologies

56.1

 Hardware

20.4

 Software

23.4

 Service

12.2

Communications Technologies

96.6

 Equipment

29.9

 Electronic Comms

66.6

Note: Sums may differ due to rounding.

2019 ICT Market in Turkey

bn USD

2019 ICT Market in Turkey

Total Exports
1.1

Total Market Size
26.8

Total Employment
143k

Information Technologies

9.9

Communications Technologies

17.0

 Hardware

3.6

 Software

4.1

 Service

2.2

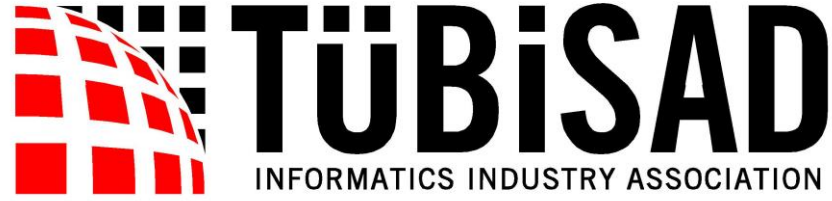
 Equipment

5.3

 Electronic Comms

11.7

Note: Sums may differ due to rounding.



Thank You

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

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