



NMHH

National Media and Infocommunications
Authority • Hungary

Electronic Communication Services Usage by Businesses, 2015

Research summary for the National Media and Infocommunications Authority
(Hungarian abbreviation: NMHH)

BellResearch



Survey Methodology

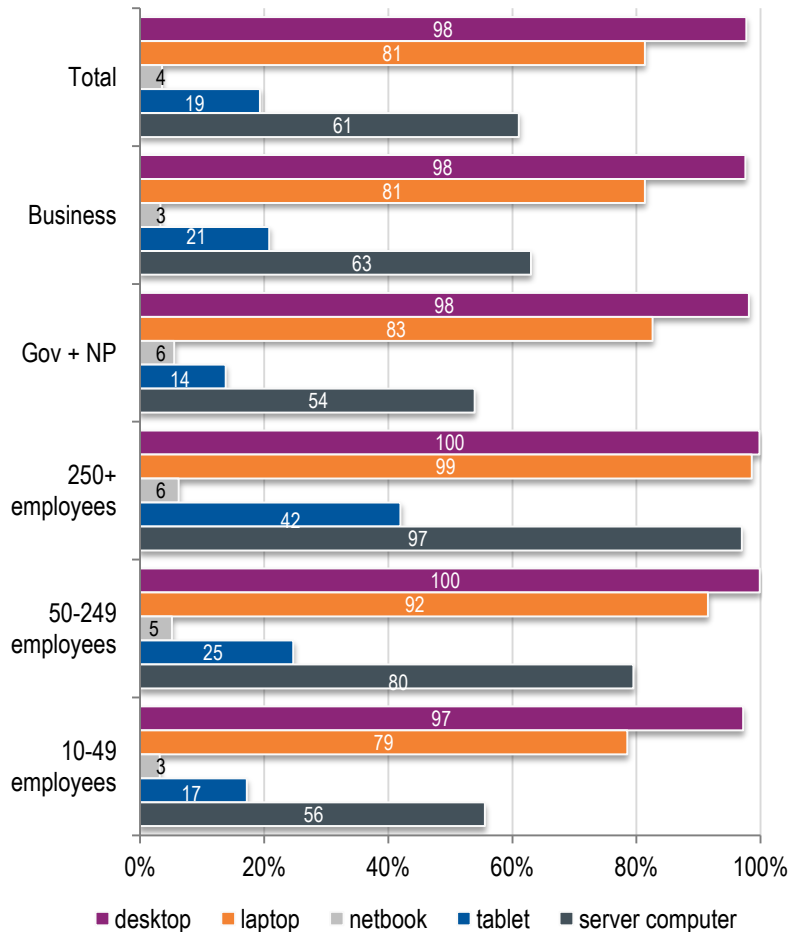
- Target groups: enterprises, public institutions and NGOs employing at least 10 persons
- Sampling: proportionally stratified by regions, not proportionally stratified by number of employees, legal form, and LTO areas. Simple random selection from each sub-segment
- Fieldwork: face-to-face interviews after contacting the interviewees by phone
- Interviewees: technical or general decision-makers in the fields of Information Technology and Telecommunications
- Number of interviews: 1508
- Fieldwork: 2nd September to 23rd October 2015

	Universe	Sample size	Sampling error [±%]*
Total [10+]	39,016	1508	±2.5%
Business [10+]	30,753	1028	±3.0%
Public + non-profit [10+]	8263	480	±4.2%
250+ employees	1372	302	±4.9%
50-249 employees	6547	501	±4.2%
10-49 employees	31,097	705	±3.6%

- Inaccuracies resulted from the disproportionate stratification and randomness of the fieldwork have been corrected by weighting, i.e. a mathematical-statistical procedure. Thus, our evidences represent the whole population regarding the number of employees, industry, regional distribution, LTO (incumbent operator) areas, and legal form.

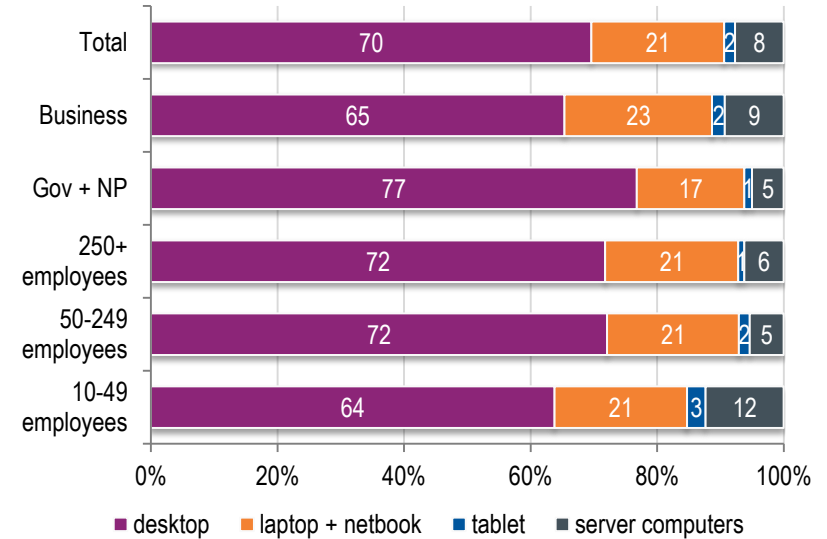
*at 95% confidence level and taking into account the statistically worst distribution: 50%

Penetration of computers



Basis: all organisations, Total=39,016 [Business=30,753, Gov+NP=8263]
[250+ emp.=1372, 50-249 emp.=6547, 10-49 emp.=31,097]

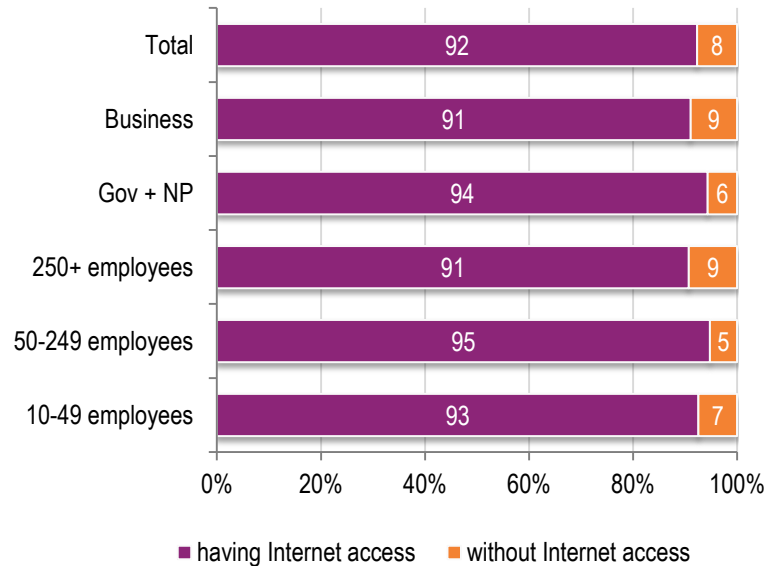
Volume of computers



Basis: all PCs and server computers, Total=1,682,471 [Business=1,057,703, Gov+NP=624,768] [250+ emp.=765,611, 50-249 emp.=442,775, 10-49 emp.=474,084]

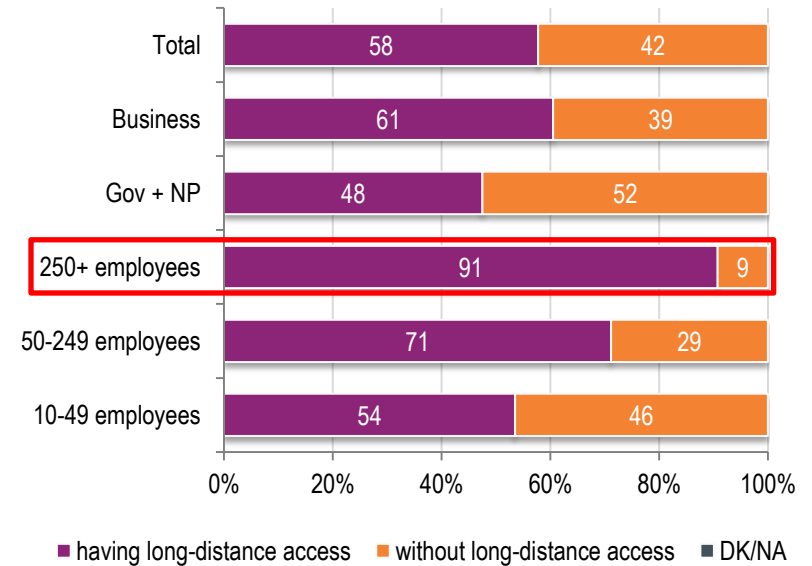
- 70% of the nearly 1.68 million computers used by organisations are desktop PCs while 21%, i.e. about 382 thousand are laptops, netbooks, and tablets. The proportion of server computers is about 8% [c. 130,000 pcs].
- Since last year, the proportion of organisations using laptops has significantly grown while the proportion of desktop users has not changed.
- The proportion of portable PCs is higher in the business sector [23%] than in the public and non-profit sector [17%].

PCs with Internet access



Basis: all PCs and server computers ,Total=1,552,896 [Business=959,482, Gov+NP=593,414] [250+ emp.= 718,179 , 50-249 emp.= 419,039, 10-49 emp.= 415,677]

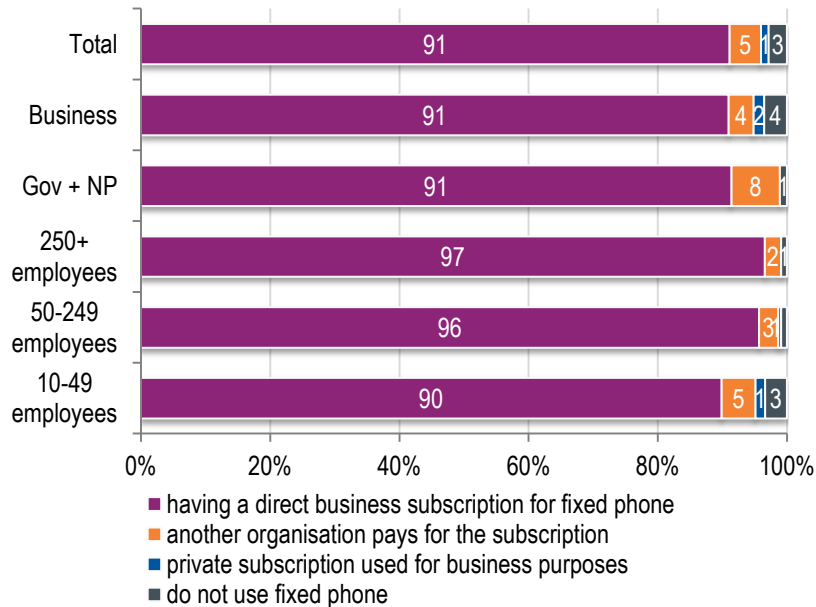
Long-distance access to local area network (LAN)



Basis: all organisations, Total=39,016 [Business=30,753, Gov+NP=8263] [250+ emp.=1372, 50-249 emp.=6547, 10-49 emp.=31,097]

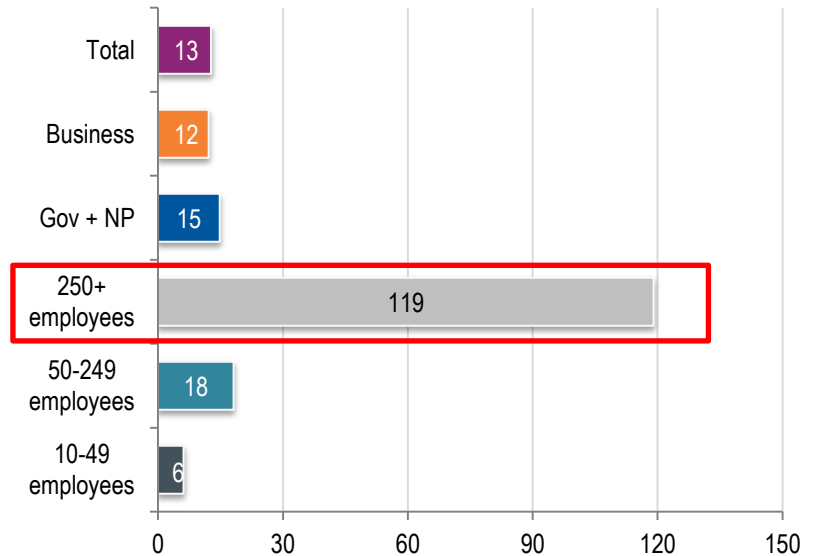
- 92% of all PCs, i.e. about 1.43 million PCs have Internet access.
- 58% of organisations with local area network (LAN) can be partly or fully accessed from long distance. In most cases, long-distance access does not mean only access to emails but ensures access to applications and databases.

Subscription and usage



Basis: all organisations, Total=39,016 [Business=30,753, Gov+NP=8263]
[250+ emp.=1372, 50-249 emp.=6547, 10-49 emp.=31,097]

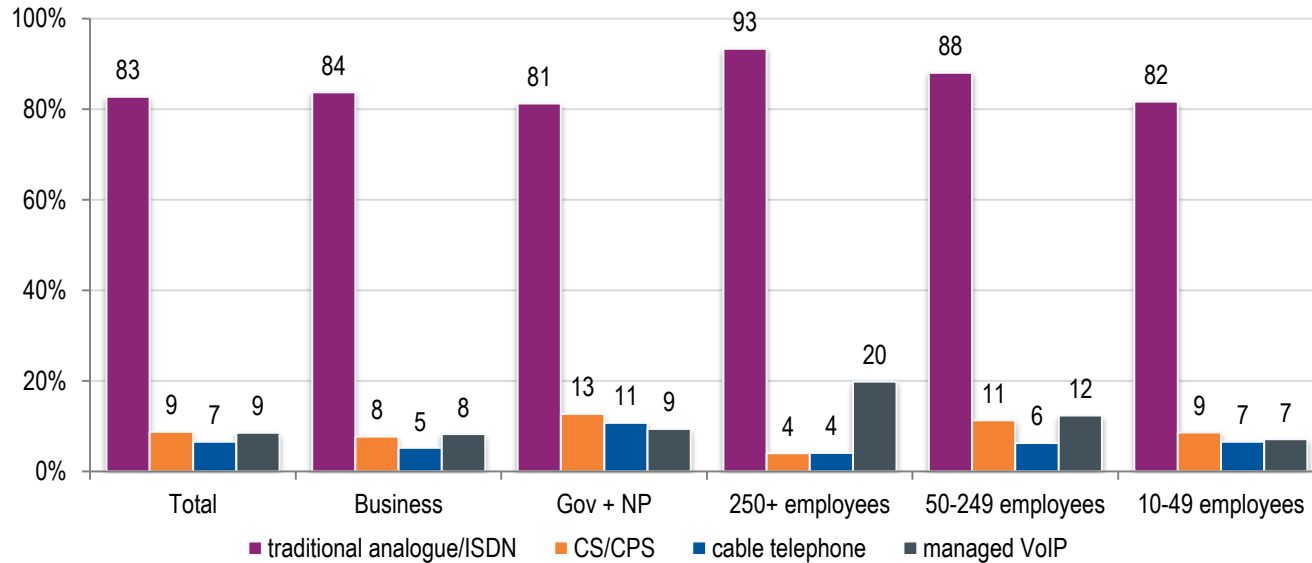
Average number of PSTN trunk lines [direct subscriptions]



Basis: organisations with direct subscription for analogue or ISDN lines, Total=32,478
[Business=25,760, Gov+NP=6717] [250+ emp.=1281, 50-249 emp.=5767,
10-49 emp.=25,429]

- Practically, **all organisations use** fixed phone.
- The vast majority have a direct subscription [91%, c. 36 thousand organisations].
- Only 5% use a subscription for fixed phone of another organisation.
- In 2015, organisations maintain 13 **PSTN lines** on average which is **413 thousand in total**. It has not changed significantly compared to 2014.

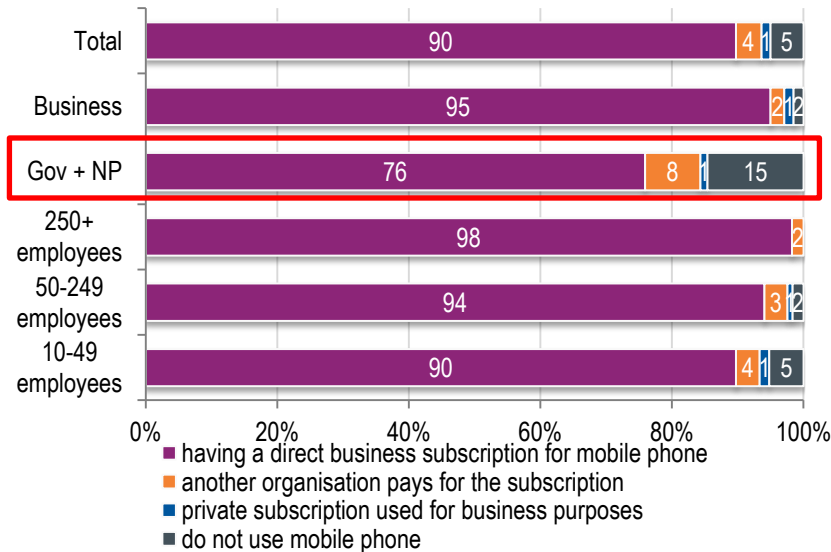
Penetration of fixed technologies [direct subscriptions]



Basis: all organisations, Total=39,016 [Business=30,753, Gov+NP=8263]
 [250+ emp.=1372, 50-249 emp.=6547, 10-49 emp.=31,097]

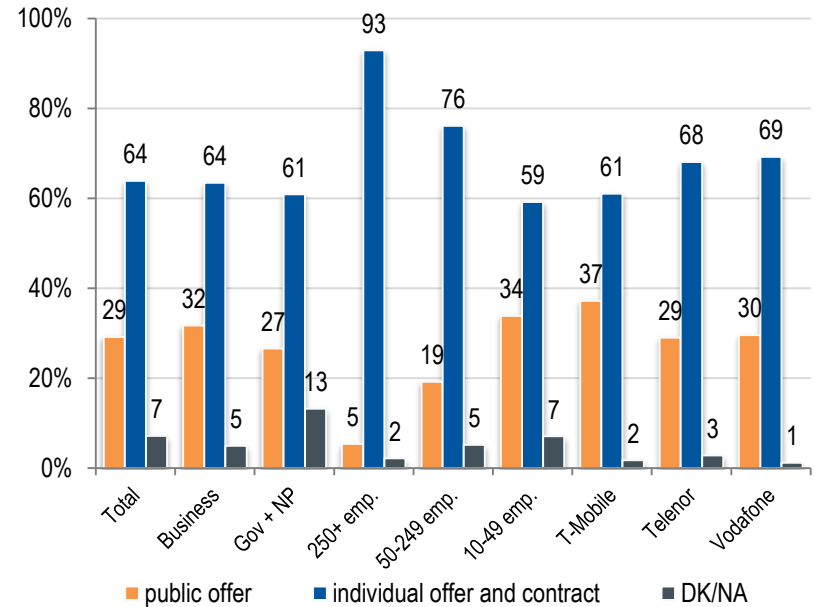
- **Traditional analogue and ISDN lines** are the most widespread: the vast majority of organisations with 10+ employees [83%, c. 32 thousand organisations] have these.
- Penetration of cable telephone and managed VoIP is only 7% and 9%, respectively. In case of organisations with at least 250 employees, penetration of managed VoIP makes up 20%.

Subscriptions and usage



Basis: all respondents, Total=39,016 [Business=30,753, Gov+NP=8263] [250+ emp.=1372, 50-249 emp.=6547, 10-49 emp.=31,097]

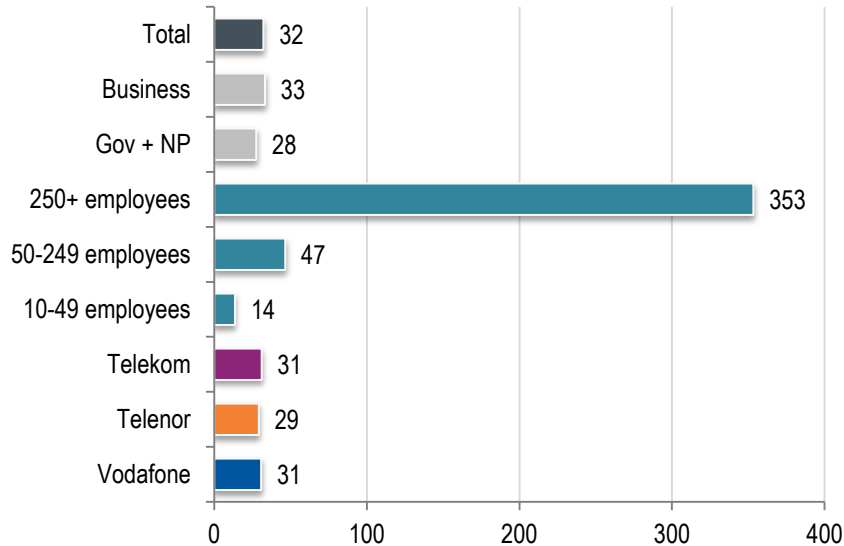
Public and individual offers [according to respondents]



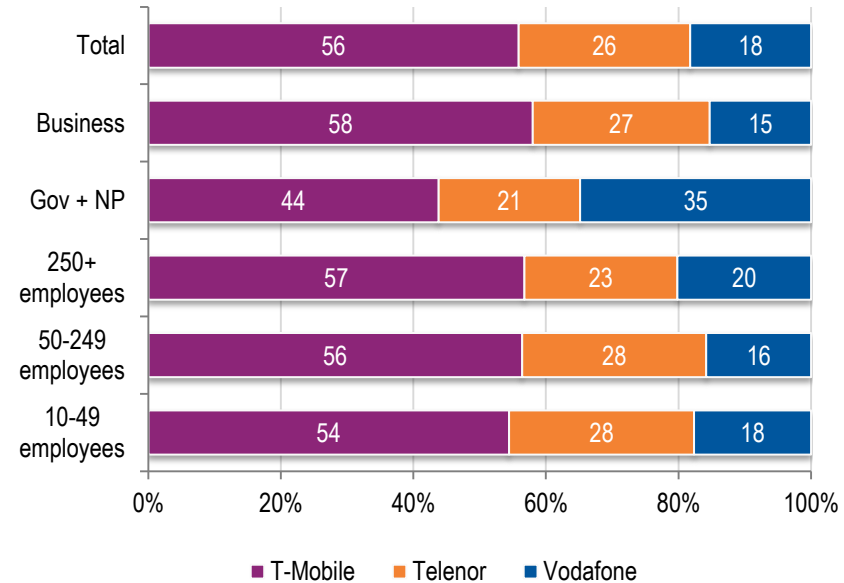
Basis: organisations with direct subscription for mobile phone, Total=37,344 [Business=30,287, Gov+NP=7058] [250+ emp.=1372, 50-249 emp.=6448, 10-49 emp.=29,525]

- The use of mobile phone is rather widespread in the population we focused on in the survey [public institutions and non-profit organisations are a bit exceptional as 15% of them do not use mobile voice service]. Penetration **has not changed significantly** since 2014.
- **Two thirds** of the organisations believe to **have received an individual offer** from the service provider. In case of organisations with at least 250 employees, it seems to be taken for granted.

Average number of direct subscriptions



Service providers' shares of direct subscriptions

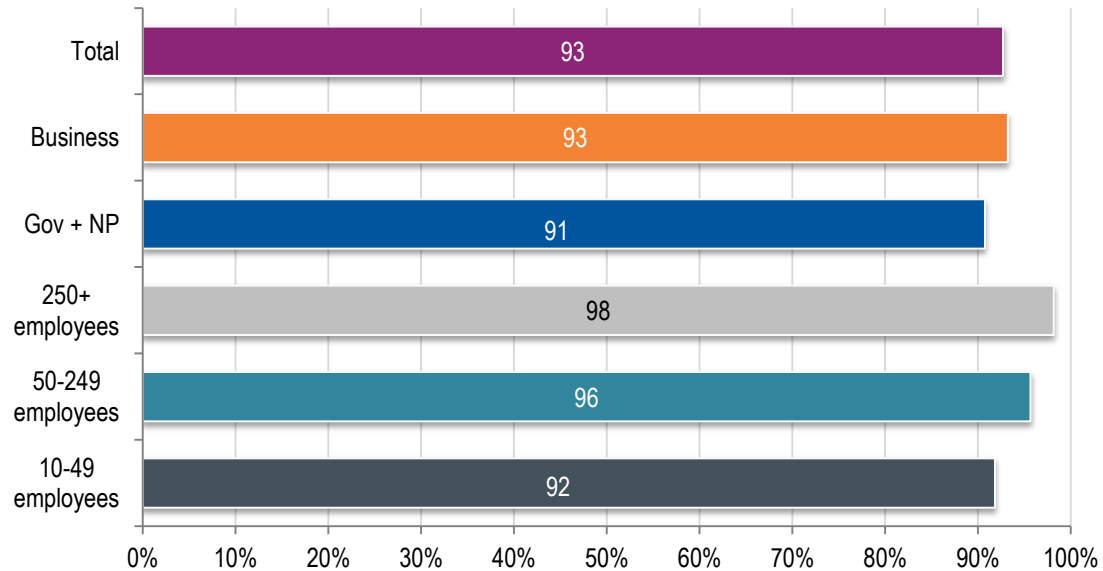


Basis: organisations with direct subscription for mobile phone, Total=35,500 [Business=29,229, Gov+NP=6271] [250+ emp.=1346, 50-249 emp.=6175, 10-49 emp.=27,978]

Basis: all direct subscriptions for mobile phone, Total=1,143,938 [Business=971,386, Gov+NP=172,551] [250+ emp.=475,683, 50-249 emp.=287,411, 10-49 emp.=380,844]

- The nearly 35.5 thousand organisations having a direct subscription for mobile phone **have approximately 1.144 million subscriptions in total**. Thus, the number of direct subscriptions has slightly increased since 2014.
- **85%** of all SIM cards are **used by companies** while the other 15% are used by public institutions and NGOs.
- T-Mobile is the service provider of 56% of SIM cards [c. 639 thousand cards]. 26% [c. 296 thousand cards] belongs to Telenor while 18% [c. 209 thousand cards] to Vodafone. Market share of Vodafone in the public and non-profit sector has significantly increased since 2014 [2014: 23%].

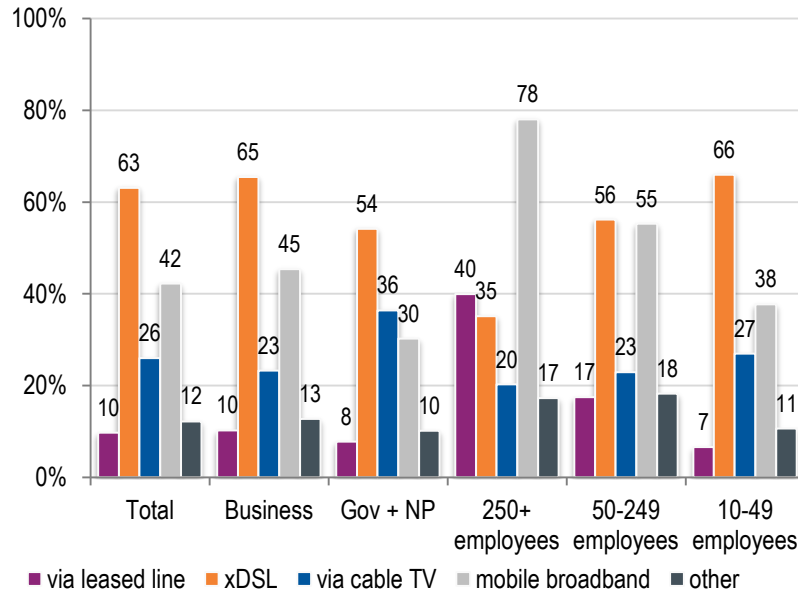
Direct subscriptions for the Internet [regardless of the technology of Internet access]



Basis: all organisations, Total=39,016 [Business=30,753, Gov+NP=8263]
 [250+ emp.=1372, 50-249 emp.=6547, 10-49 emp.=31,097]

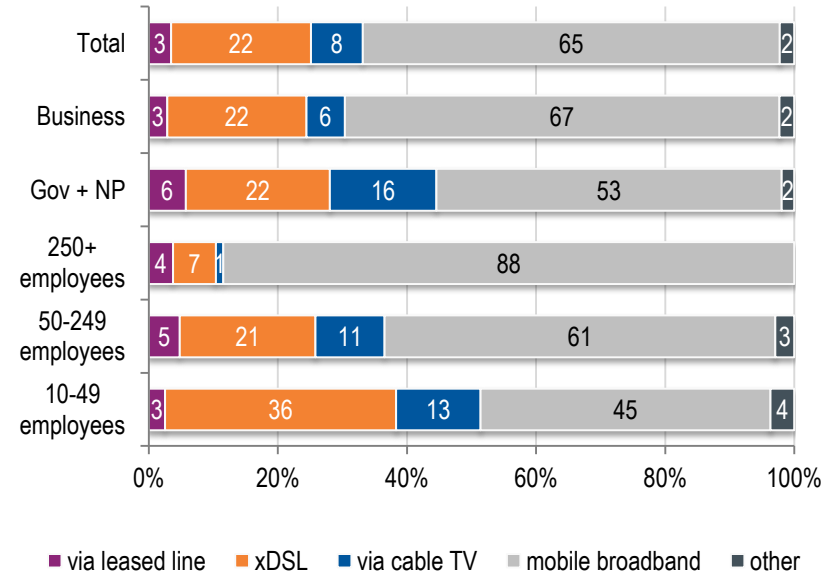
- The vast majority [93%, c 36 thousand] of organisations having at least ten employees have direct Internet access while the number of organisations using the Internet is about 38 thousand [98%]. In 2015, penetration has not changed significantly compared to 2014.
- Share of direct subscriptions is higher in the business sector than in the public and non-profit sector [91%].
- The size of organisations does not seem to have an effect on penetration.

Penetration of Internet technologies



Basis: organisations with direct subscription for the Internet, Total=36,165 [Business=28,667, Gov+NP=7499] [250+ emp.=1347, 50-249 emp.=6262, 10-49 emp.=28,56 0]

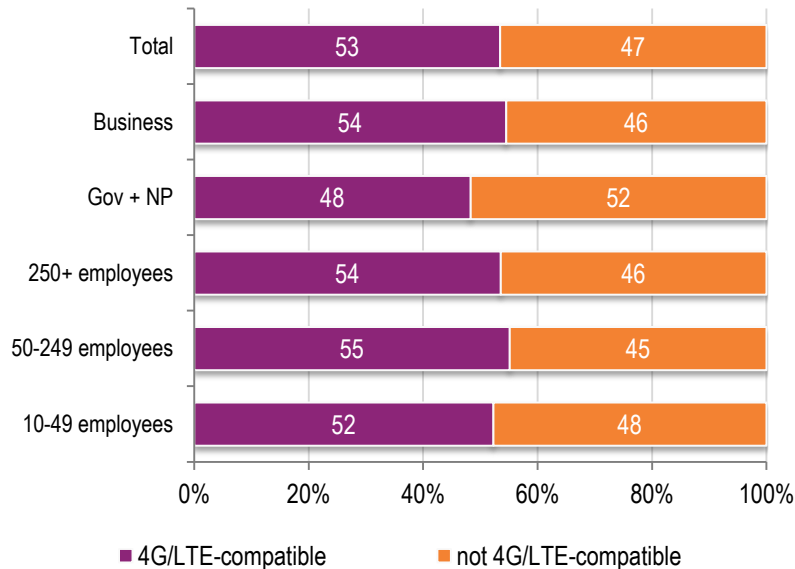
Shares of direct subscriptions for the Internet by technology



Basis: number of direct subscriptions for the Internet, Total=197,819 [Business=158,719, Gov+NP=39,100] [250+ emp.=75,963, 50-249 emp.=38,772, 10-49 emp.=83,084]

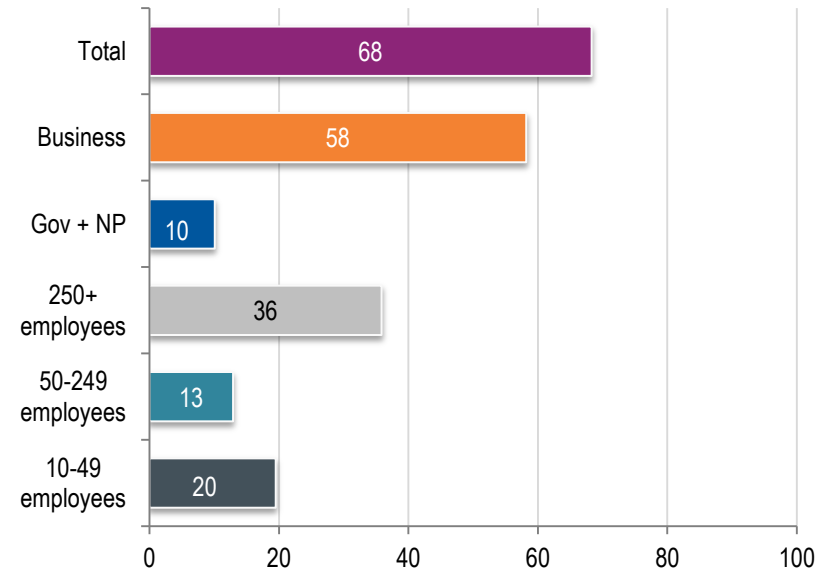
- Regarding the shares of organisations with direct subscription, **DSL is still the most widespread access technology**, but in case of organisations with more than 249 employees, penetration of mobile Internet has been already higher. Since 2014, penetration of other technologies has dropped significantly, especially among public and non-profit organisations.
- Regarding the number of direct subscriptions, mobile broadband makes up the majority while DSL, although being the leading technology, takes up only 22%. It is important to add, however, that **MBB is rather for individual usage** while other technologies ensure simultaneous Internet access for a bigger amount of users.

4G/LTE-compatible SIMs



Basis: number of direct subscriptions for MBB, Total=127,760
 [Business=106,845, Gov+NP=20,914] [250+ emp.=66,955,
 50-249 emp.=23,457, 10-49 emp.=37,347]

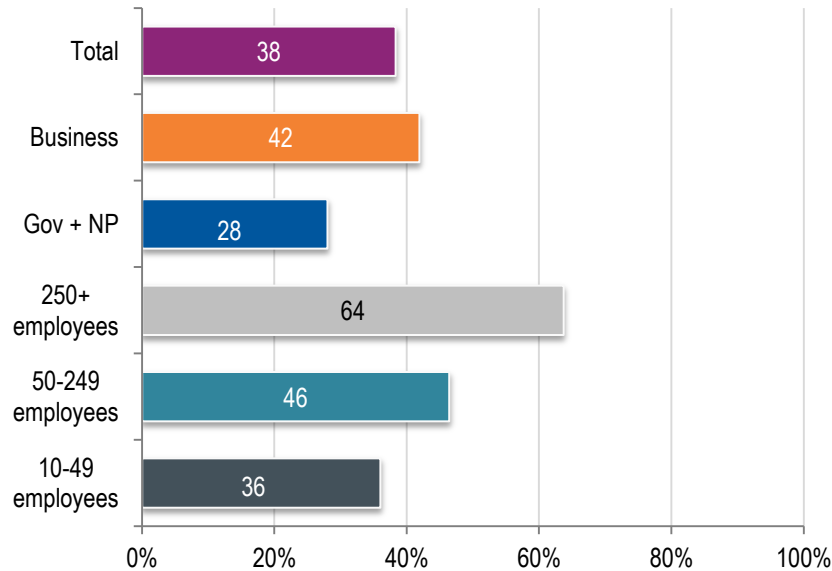
Number of 4G/LTE-compatible SIMs ['000]



Basis: number of direct subscriptions for MBB, Total=127,760
 [Business=106,845, Gov+NP=20,914] [250+ emp.=66,955,
 50-249 emp.=23,457, 10-49 emp.=37,347]

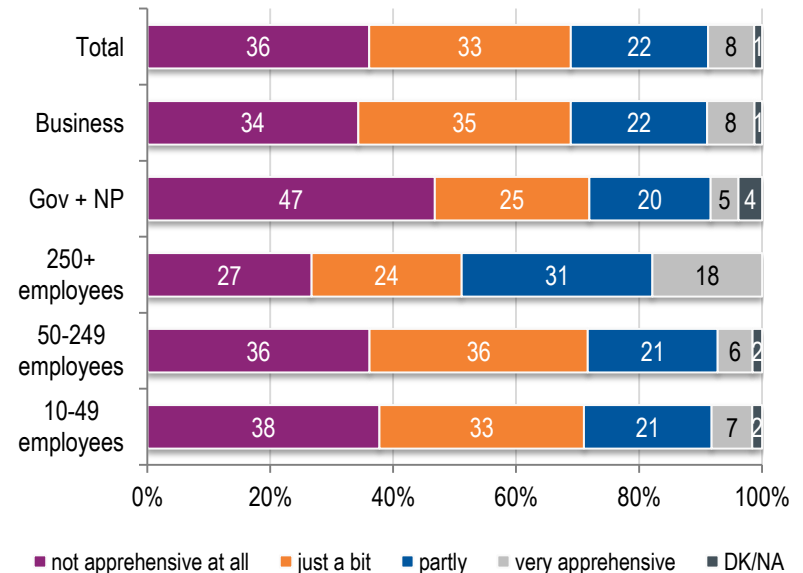
- More than half of the subscriptions for MBB [c 128,000 SIMs] are 4G/LTE-compatible which is about **68,000** SIMs.
- The proportion of LTE-compatible SIMs does not vary significantly among sectors. The difference in number between the business [58,000 4G/LTE-compatible SIMs] and public, non-profit sector [10,000 4G-compatible SIMs] is a result of the higher proportion of MBB subscriptions in the business sector.

The information system of the organisation is open at least partly for smart devices



Basis: organisations with Internet access, Total=38,812 [Business=30,562, Gov+NP=8251] [250+ emp.=1372, 50-249 emp.=6547, 10-49 emp.=30,893]

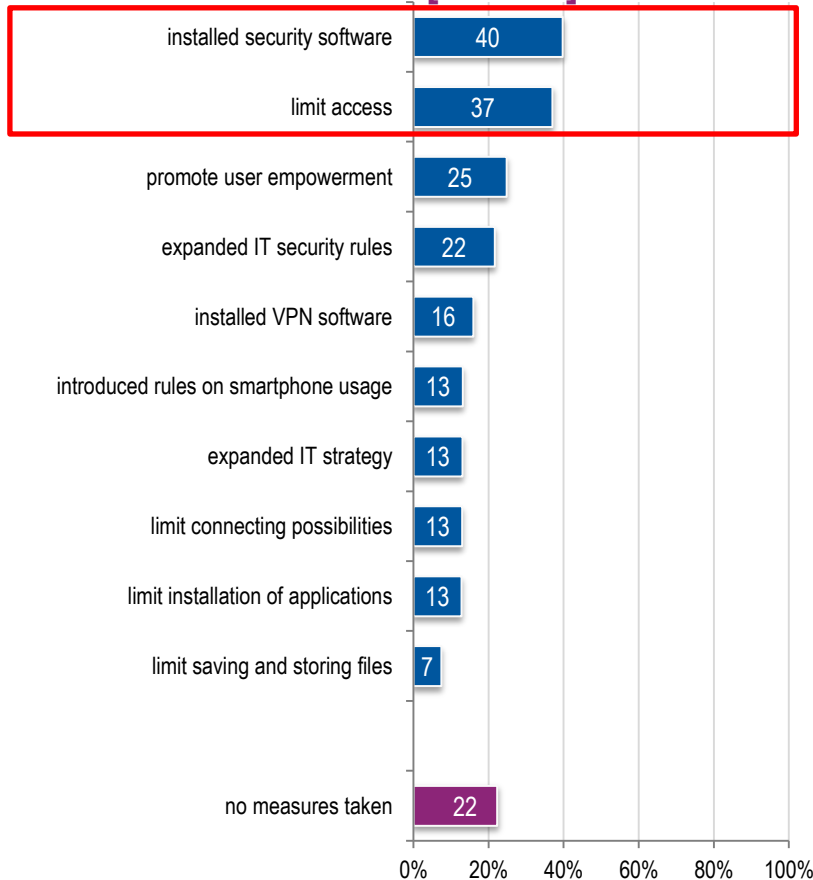
Are you apprehensive that your information system may be attacked through smart devices?



Basis: organisations opening their information system for smart devices

- About **two-fifth of organisations** open their information system **at least partly** for smart devices. This proportion is higher than average, 64%, among organisations with 250+ employees.
- Two thirds of the respective group is not apprehensive at all or just a bit that their organisation may be attacked through its open information system. Although, **organisations with 250+ employees** which open up their system more often are more anxious about a possible attack. The reason of this result might be that these organisations may be more competent about this issue and know more about possible risks.

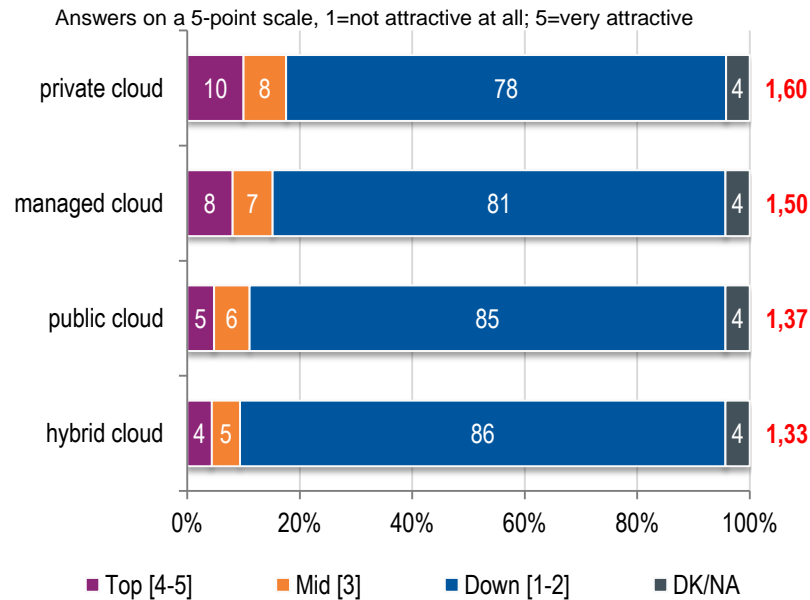
How do you defend your information system against possible attacks through smart devices? [TOP 10]



- The measures taken by most organisations to avoid possible attacks against their system through smart devices are the obligatory use of **security softwares** and limiting **access** to the system.
- It is alarming that **three-fourth** of the respective organisations **do not deal with** promoting user empowerment **at all**.
- Besides, it is also notable that one fifth of the respective organisations do not take any measures to protect their information system against possible attacks through smart devices.

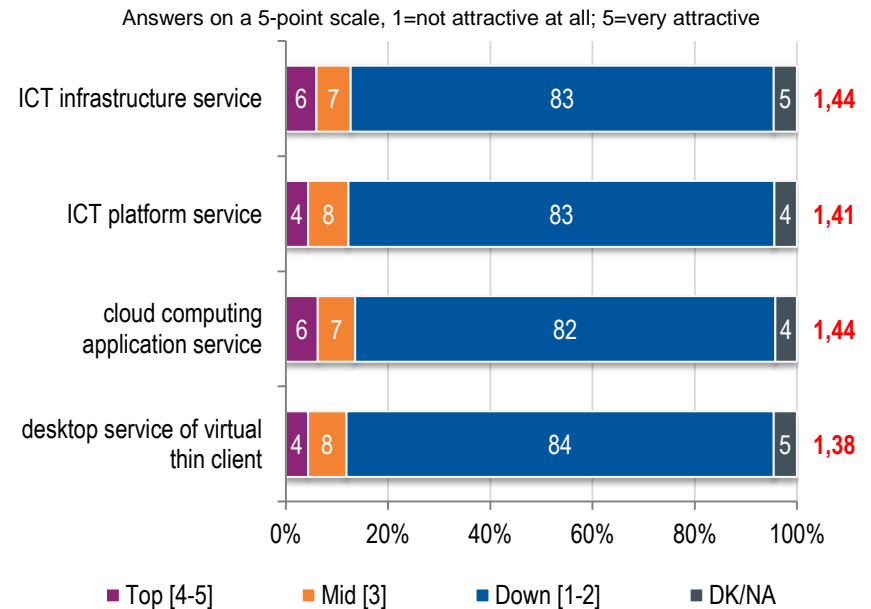
Basis: organisations opening their information system for smart devices, Total=14,856

Attractiveness of cloud technology solutions



Basis: organisations with Internet access, Total=38,812 [Business=30,562, Gov+NP=8251] [250+ emp.=1372, 50-249 emp.=6547, 10-49 emp.=30,893]

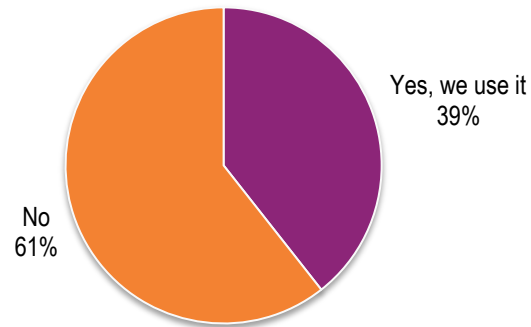
Attractiveness of built-in services



Basis: organisations with Internet access, Total=38,812 [Business=30,562, Gov+NP=8251] [250+ emp.=1372, 50-249 emp.=6547, 10-49 emp.=30,893]

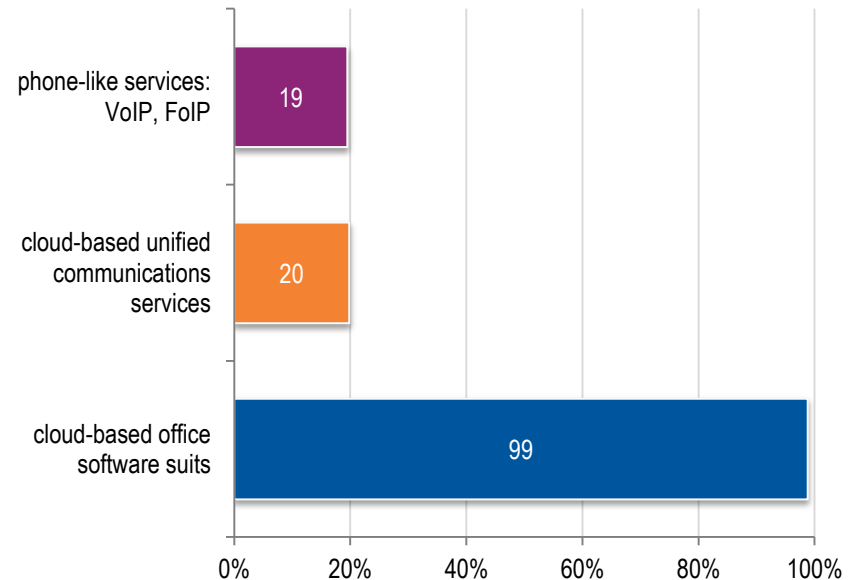
- Cloud technology solutions **could not gain much popularity** among organisations with at least 10 employees yet. Only a small minority of organisations consider it positively. Even the most popular **private cloud service was mentioned only by 10% of respondents as interesting**.
- Cloud services are not attractive for Hungarian organisations: **still more than 80% refuse to use them**.
- Only **7%** of all organisations **use** cloud services. This proportion is higher than average amongst companies [8%], those with 100% foreign owned businesses [19%], and organisations led by middle-aged [aged 40-49] managers [11%].

Use of Software-as-a-Service [SaaS] among users of cloud services*



Basis: organisations using cloud services, Total=3386
 [Business=2966, Gov+NP=420] [250+ emp.=219, 50-249 emp.=690, 10-49 emp.=2477]

Use of Communication-as-a-Service among users of SaaS*




Basis: organisations using Software-as-a-Service [SaaS], Total=1342 [Business=1243, Gov+NP=99] [250+ emp.=66, 50-249 emp.=268, 10-49 emp.=1008]

- Two-fifth of organisations using cloud services use Software-as-a-Service [SaaS].
- 19% of organisations using SaaS use phone-like cloud-based services [e.g., voice over IP and fax over IP] and 20% use cloud-based unified communications services [e.g., PABX (internal phone system), call centre, and video conference] while practically each of the respective organisations use cloud-based office suits.



*Data need to be handled carefully because of the low number of respondents

Advantages

- **Save costs of investment [23%]**
- **Save costs of daily operation [18%]**
- **Service can be accessed regardless of location [16%]** 
- Servers provided by operators are stored in data centres with high-level of security [14%]
- Applications are more trustful and better at being at service [14%]
- High level information security [14%]
- Equipment is updated and maintained regularly, and are up-to-date [12%]
- Fast introduction [11%]
- Save place in the office [11%]
- Pay-as-you-go payment model [10%]
- **No advantage [41%]**

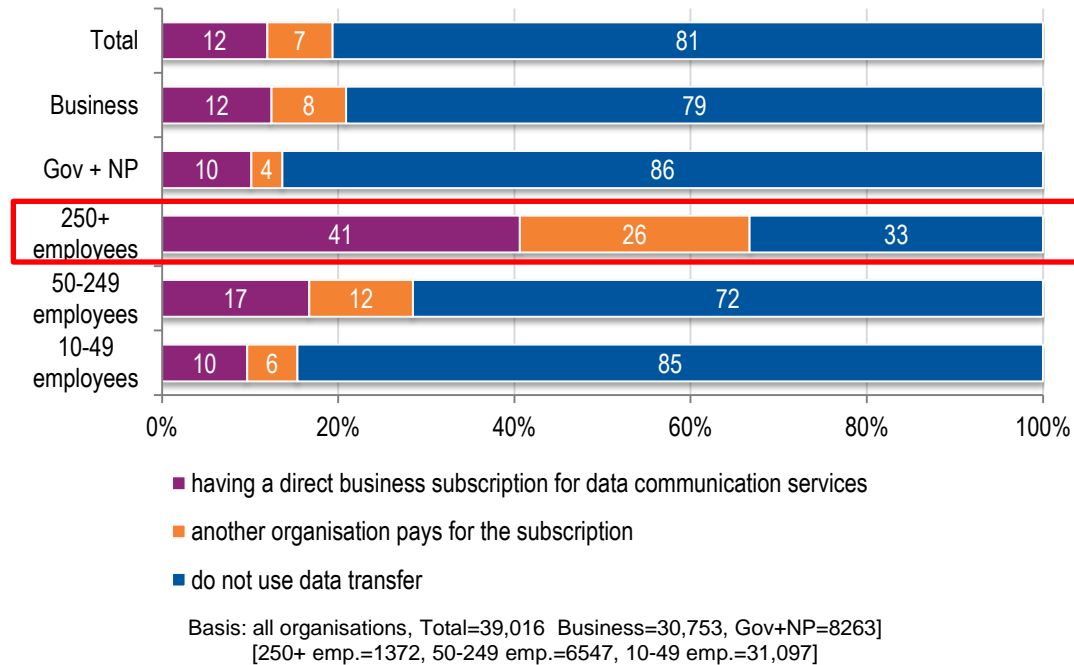
Basis: organisations with Internet access, Total=38,812 [Business=30,562, Gov+NP=8251] [250+ emp.=1372, 50-249 emp.=6547, 10-49 emp.=30,893]

Disadvantages

- **Dependency on an external operator [45%]**
- **Privacy concerns about data management [36%]**
- **The service is not available in case of a failure of the Internet access [29%]** 
- Satisfaction with the present, non-cloud computing solution [27%]
- Not enough reference yet [12%]
- Parent company would not support it [10%]
- Systems are integrated and thus, cannot be placed out in parts [8%]
- Not all softwares have a virtualized version [7%]
- Flexibility and reaction time of service provider would be poorer [7%]
- Security, legal, and regulatory rules of the organisation do not make it possible [6%]
- **No disadvantage [25%]** 

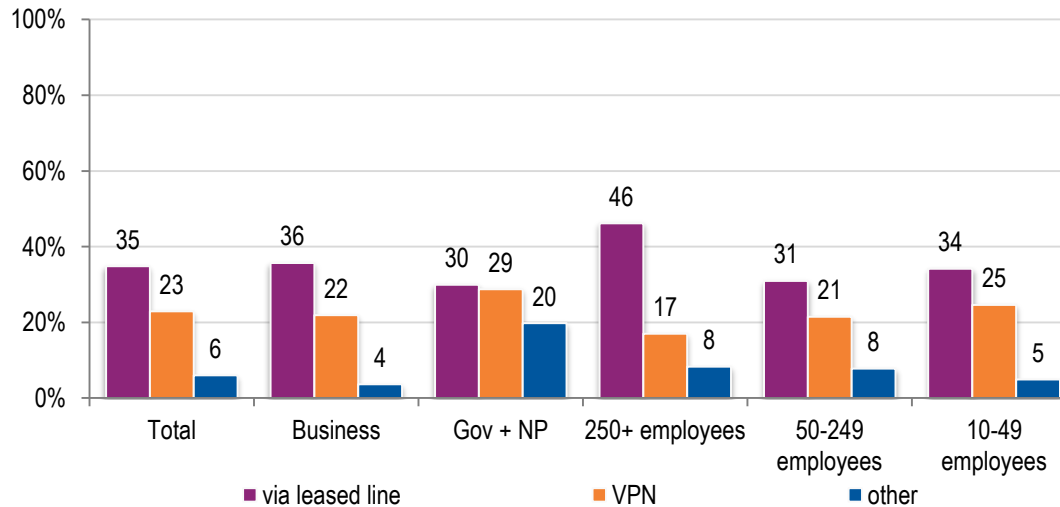
Basis: organisations with Internet access, Total=38,812 [Business=30,562, Gov+NP=8251] [250+ emp.=1372, 50-249 emp.=6547, 10-49 emp.=30,893]

Subscription and usage



- 12%, i.e. about 4.7 thousand businesses, public institutions, and non-profit organisations use data transfer services with direct subscription.
- Another 7% of the respective organisations use the subscription of another organisation or have a solution of their own.

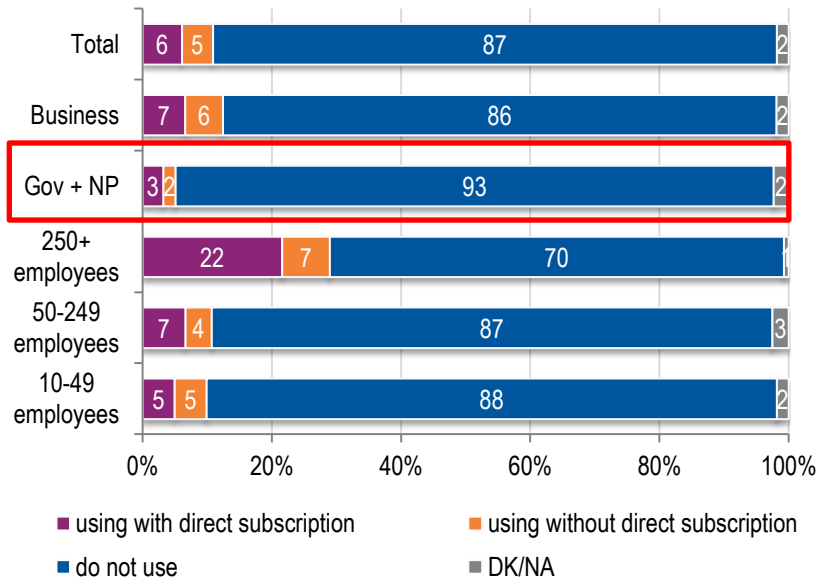
Penetration of technologies



Basis: organisations using data transfer with a direct subscription, Total=4661 [Business=3822, Gov+NP=839]
[250+ emp.=558, 50-249 emp.=1094, 10-49 emp.=3008]

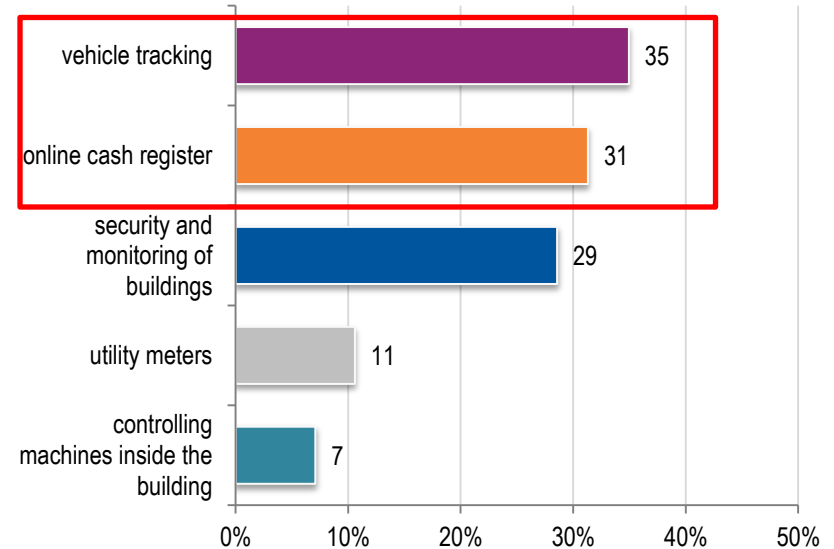
- Regarding direct subscriptions, **leased line technology [35%]** and **virtual private networks [23%]** are the most widespread.
- 48% of direct subscriptions for leased lines are based on copper wire, 43% on fiber technology, and more than one third on microwave. More than half [59%] of subscriptions for leased line technology among organisations with 250+ employees are based on copper wire.
- In case of virtual private networks, terminal nodes access the network mainly through DSL [52%] or a leased line [36%]. 80% of VPNs used by organisations are IP-VPNs while another 18% are Layer2 VPNs/Ethernet VPNs.

Subscription and usage of M2M communication cards



Basis: all organisations, Total=39,016 [Business=30,753, Gov+NP=8263] [250+ emp.=1372, 50-249 emp.=6547, 10-49 emp.=31,097]

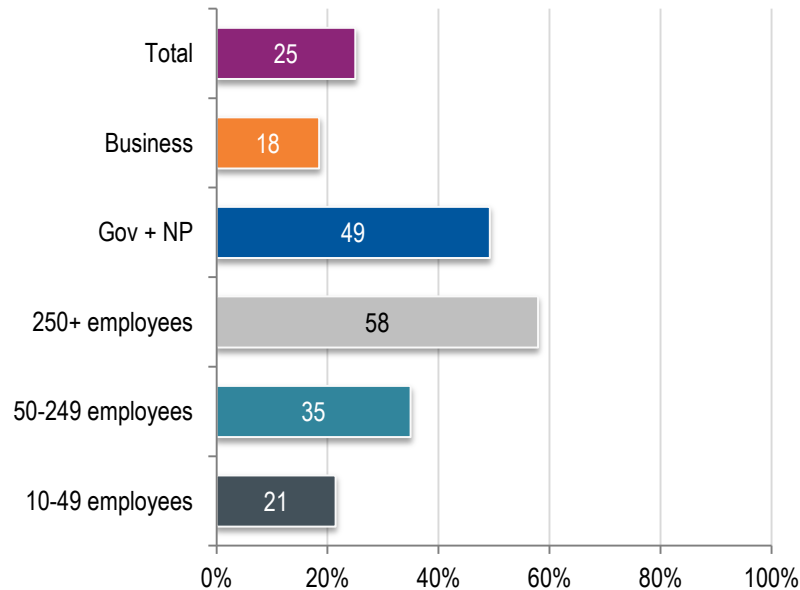
Main functions of using M2M communication cards [TOP 5]



Basis: organisations with subscription for machine-to-machine communication cards, Total=4296 [Business=3864, Gov+NP=433] [250+ emp.=401, 50-249 emp.=724, 10-49 emp.=3171]

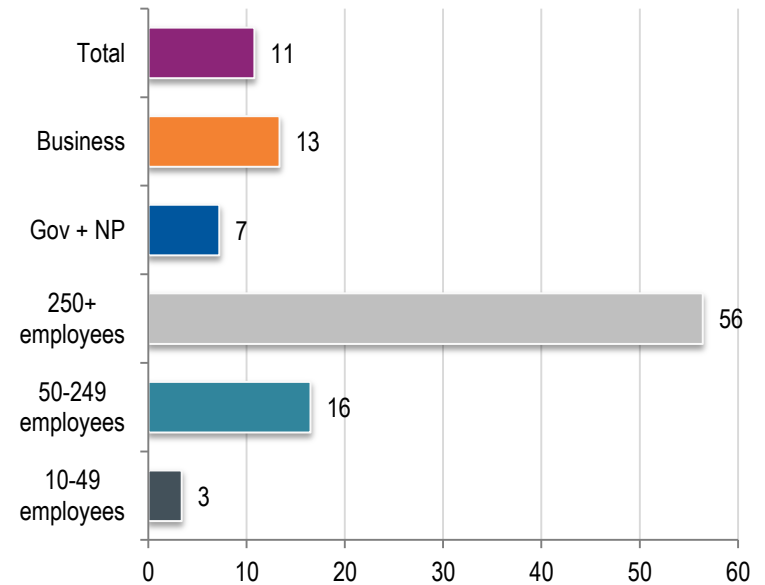
- 11%, i.e. 4300 organisations use machine-to-machine communication cards while 6% have a direct subscription. Organisations using M2M communication cards have a direct subscription for about 147,000 SIM cards.
- Organisations use M2M SIM cards mostly for vehicle tracking and operating online cash registers while three-tenth use them for security and monitoring of buildings.

Proportion of organisations with TV set



Basis: all organisations, Total=39,016 [Business=30,753, Gov+NP=8263]
[250+ emp.=1372, 50-249 emp.=6547, 10-49 emp.=31,097]

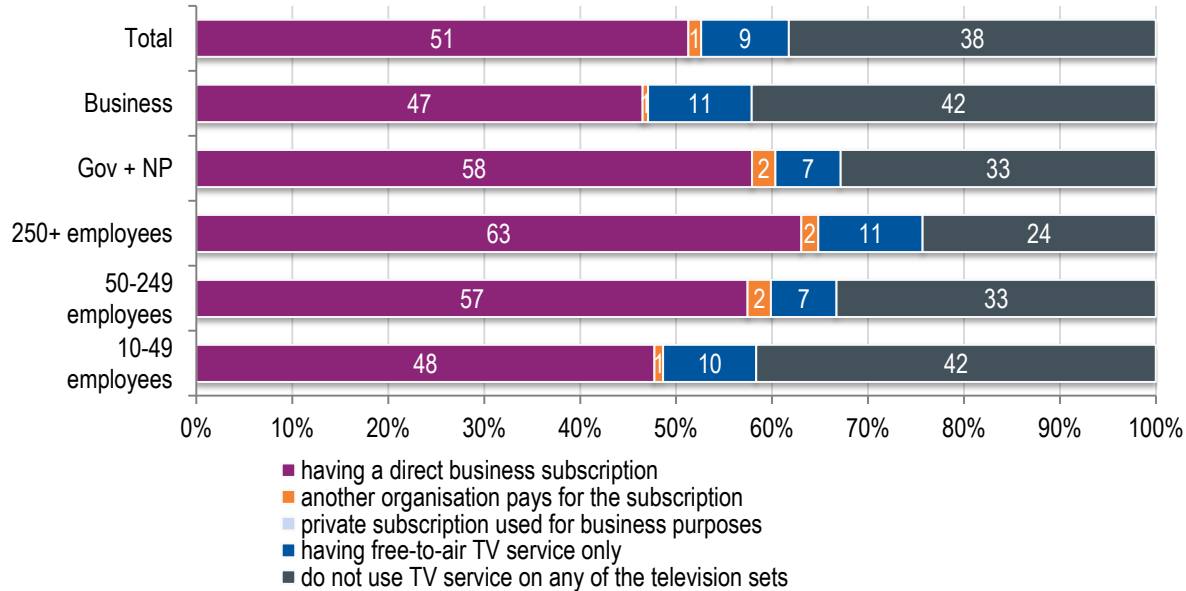
Average number of TV sets



Basis: all organisations with an operating TV set, Total=9748 [Business=5680, Gov+NP=4068 [250+ emp.=795, 50-249 emp.=2288, 10-49 emp.=6665]

- **One quarter** of organisations have at least one operating television set. This proportion is much higher in the public and non-profit sector [49%] than in the business sector [18%].
- There is a direct correlation between penetration of television sets and the size of the organisation: the bigger the organisation, the higher the probability of owned TV sets, and also the higher the average number of TV sets.
- In sum, there are about 10 thousand organisations that own **about 105 thousand television sets altogether**.

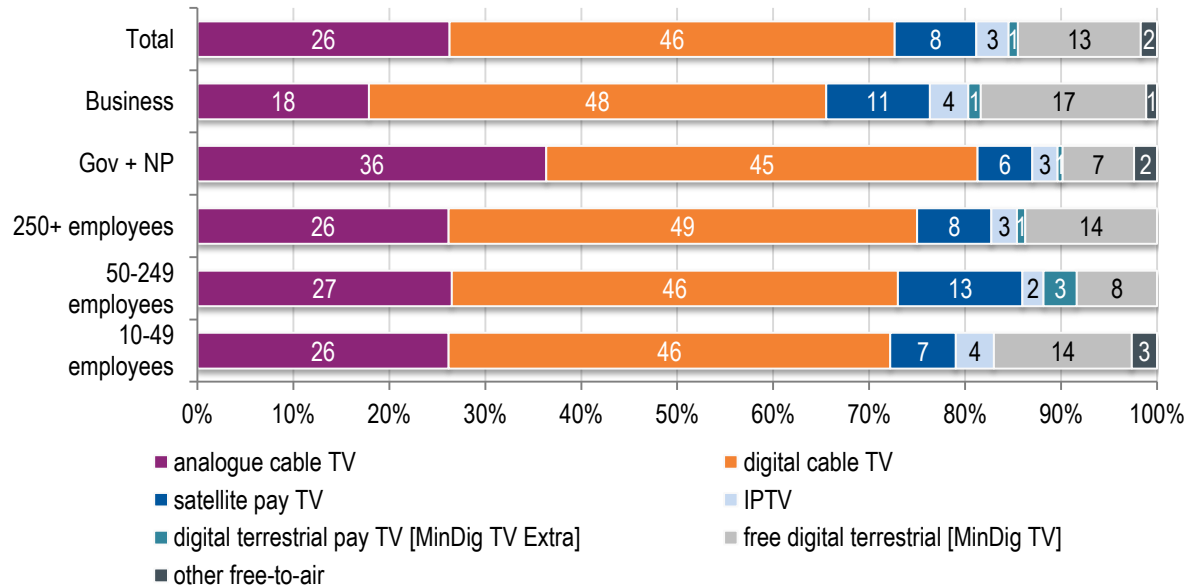
Do you have pay TV service?



Basis: all organisations with an operating TV set, Total=9748 [Business=5680, Gov+NP=4068
[250+ emp.=795, 50-249 emp.=2288, 10-49 emp.=6665]

- 51% of organisations with television sets [i.e. about 5000 organisations] have a direct business subscription for pay TV services while more than **one third do not use TV sets to watch TV programmes** but for other purposes. Another 9% of organisations with TV sets use free-to-air TV services only.
- Proportion of subscribers for pay TV services is higher among big organisations.

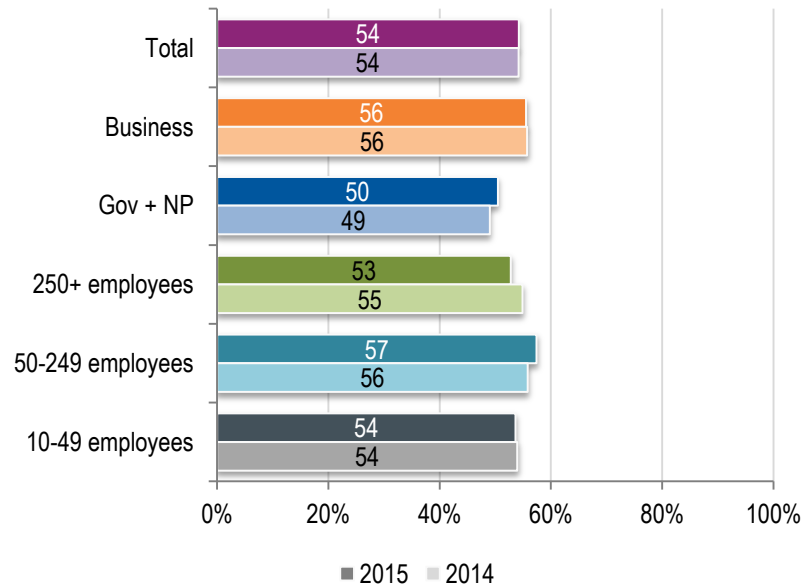
Penetration of technologies



Basis: organisations with pay TV or free-to-air TV services, Total=6019 [Business=3288 , Gov+NP=2731] [250+ emp.=602, 50-249 emp.=1527, 10-49 emp.=3891]

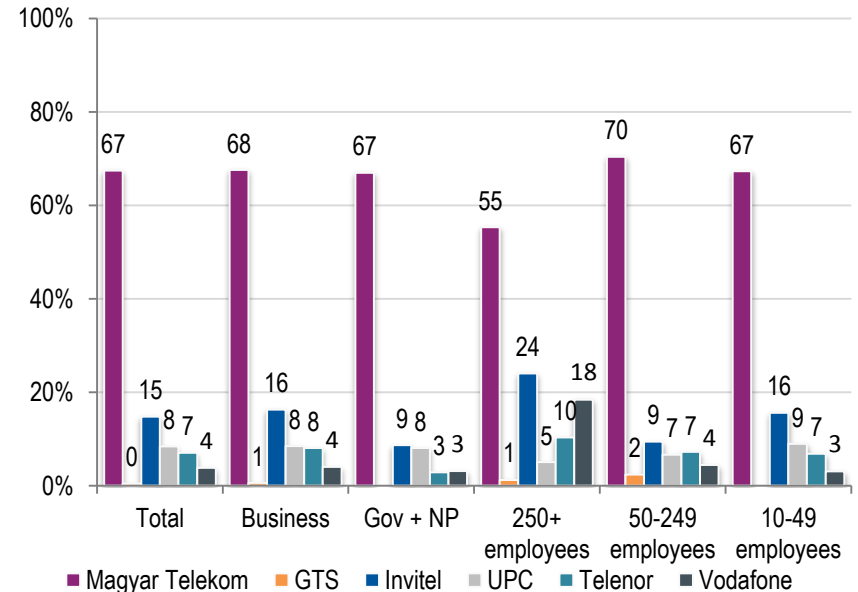
- Digital [46%] and analogue [26%] cable technology is the most widespread, about three-quarter of organisations with TV service subscribe for cable TV.
- 8% of organisations with TV service use satellite while about 7% use free digital terrestrial TV service.
- Penetration of cable TV service is higher in the public and non-profit sector than in the business sector.

Penetration of bundles



Basis: all organisations, Total=39,016 [Business=30,753, Gov+NP=8263]
[250+ emp.=1372, 50-249 emp.=6547, 10-49 emp.=31,097]

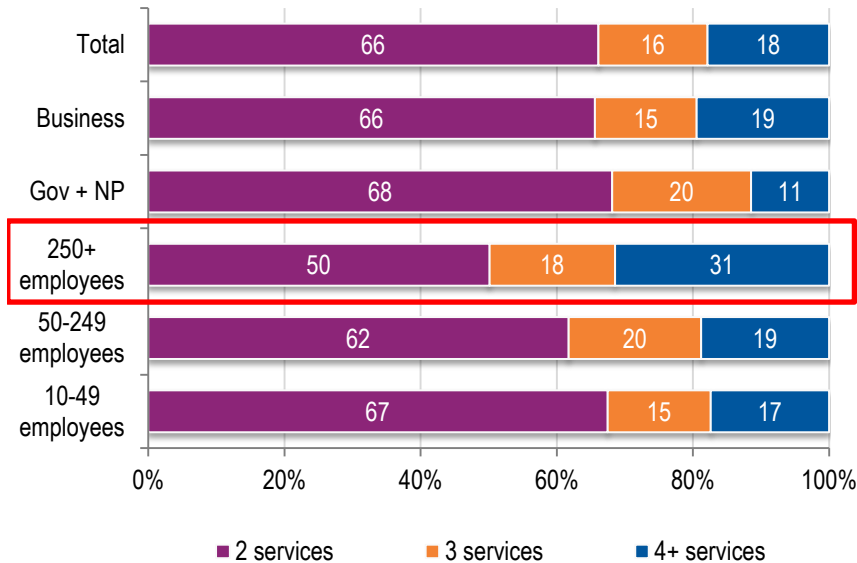
Relation to service providers



Basis: organisations having services in bundle, Total=21,638
[Business=17,369, Gov+NP=4269] [250+ emp.=733, 50-249 emp.=3850, 10-49 emp.=17,055]

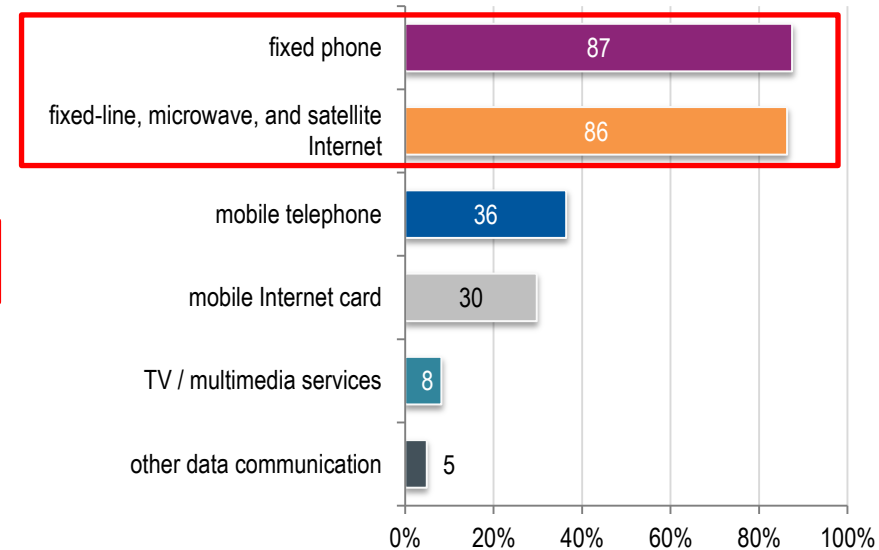
- **54%** of organisations with at least 10 employees use electronic communication services in bundle. It means **about 21.6 thousand** enterprises, public institutions, and non-profit organisations. This proportion has not changed compared to the year before.
- **Two thirds** of organisations using bundled services are clients of **Magyar Telekom**. 15% subscribe for bundled services at Invitel.
- UPC, Telenor, and Vodafone still have a lower number of clients with bundled services.

Number of services used in bundle



Basis: organisations having services in bundle, Total=21,638
 [Business=17,369, Gov+NP=4269] [250+ emp.=733, 50-249 emp.=3850,
 10-49 emp.=17,055]

Services used in bundle



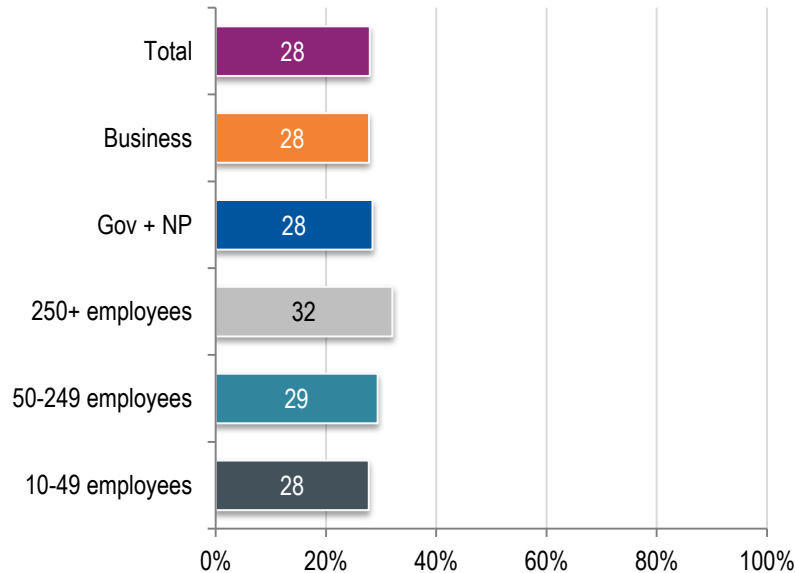
Basis: organisations having services in bundle, Total=21,638
 [Business=17,369, Gov+NP=4269] [250+ emp.=733, 50-249 emp.=3850,
 10-49 emp.=17,055]

- 66% of organisations using bundled services subscribe for 2 services in a bundle. Another 34% use 3 or more services in a bundle.
- Fixed phone [87%] and fixed-line Internet [86%] are the most common services in bundle.
- The proportion of organisations using fixed phone in bundle has increased by 8 percentage points since 2014 being the most significant change.
- Besides electronic communication services, clients of Magyar Telekom can use gas and electricity services bundled with telecom services, however, penetration is rather low yet [about 3%].



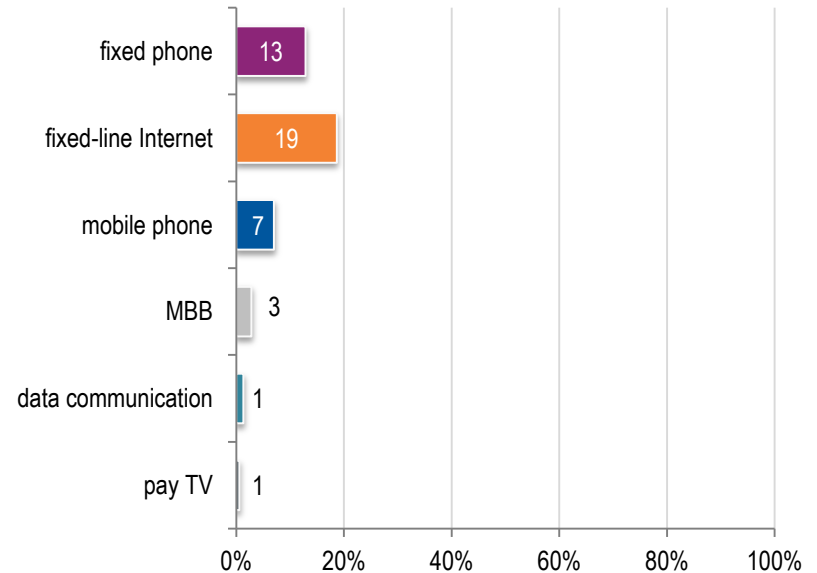
Consumer Complaints | Problem with Services

Experienced any problem with electronic communication services in the last 12 months



Basis: all organisations, Total=39,016 [Business=30,753, Gov+NP=8263] [250+ emp.=1372, 50-249 emp.=6547, 10-49 emp.=31,097]

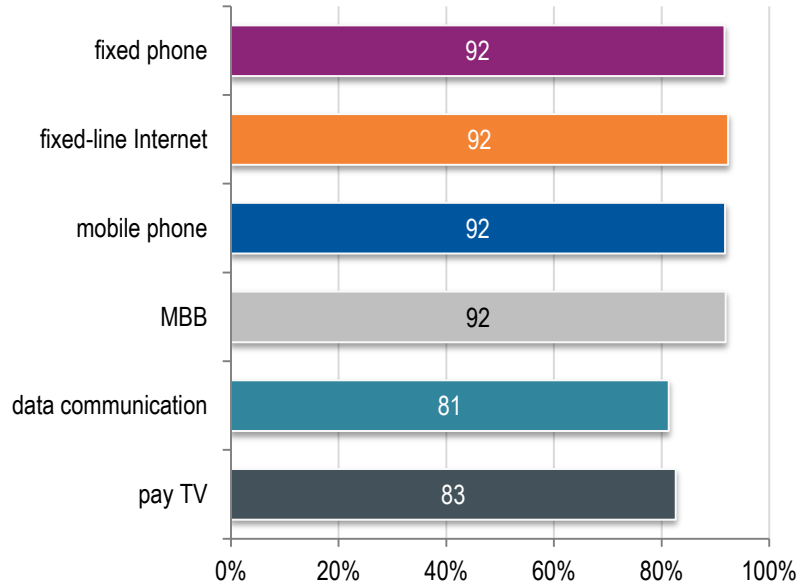
Problems experienced in the last 12 months by services



Basis: all organisations, Total=39,016 [Business=30,753, Gov+NP=8263] [250+ emp.=1372, 50-249 emp.=6547, 10-49 emp.=31,097]

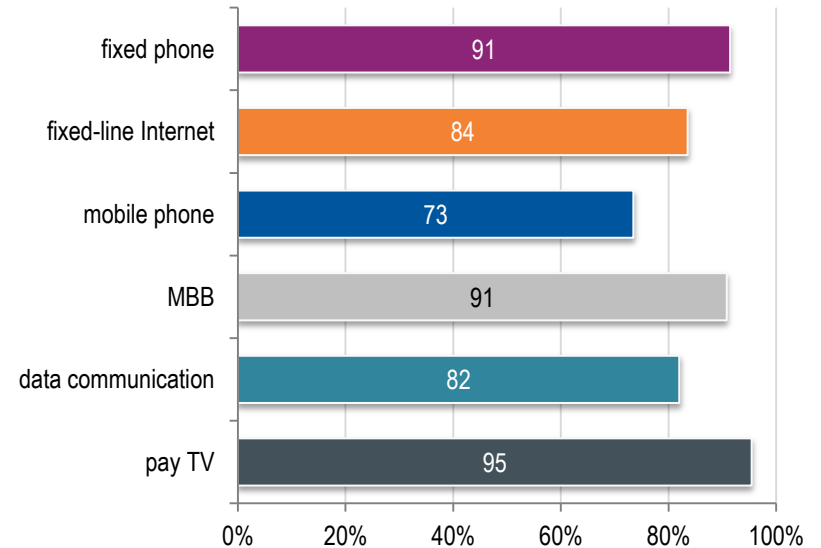
- About **one fourth** of organisations **experienced some kind of problem** with electronic communication services during the year before the survey.
- More organisations perceived problems with **fixed-line Internet** and **fixed phone** while mobile telephony caused the least annoyances, according to consumers.

In case of a problem, have you contacted the service provider?



Basis: organisations experienced problem with the given service

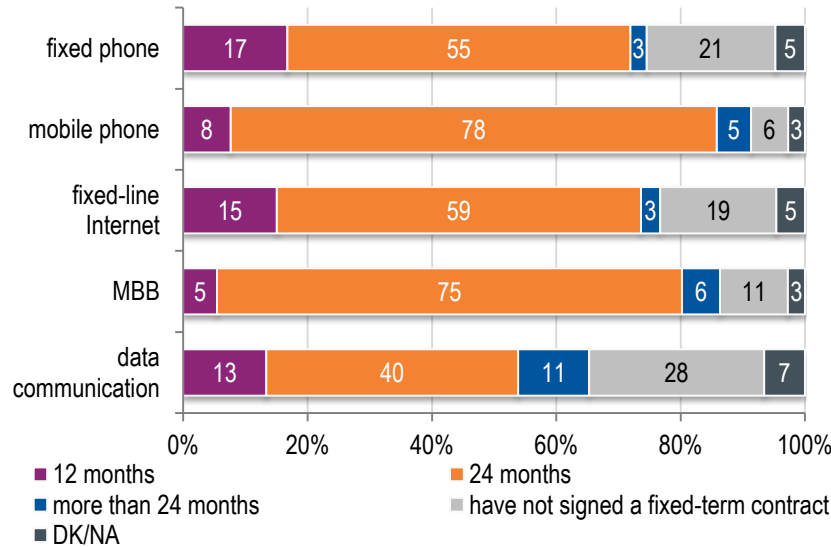
Proportion of complaints resolved to consumers' satisfaction



Basis: organisations experienced problem with the given service

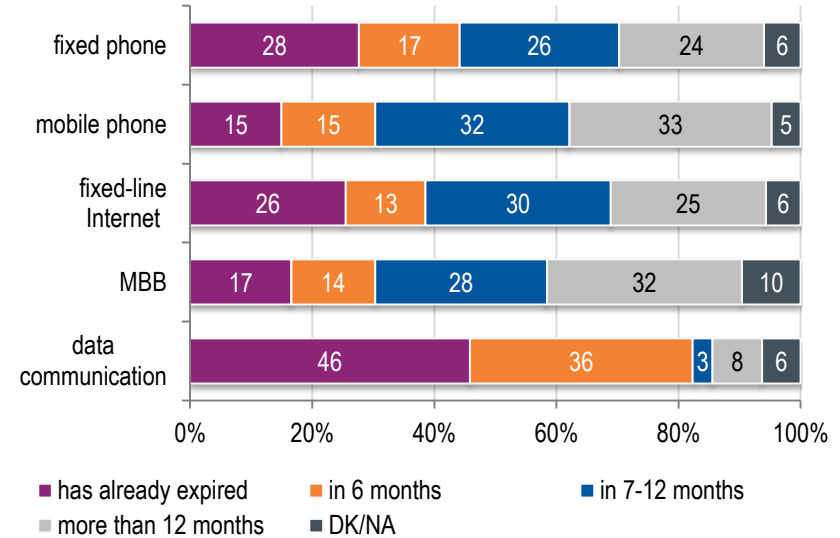
- In case of a problem with the service, the vast majority of organisations **contacted their service provider**.
- The majority of complaints and disputes were **resolved to the consumers' satisfaction**.

Length of fixed-term contracts signed with a service provider



Basis: organisations with a direct subscription

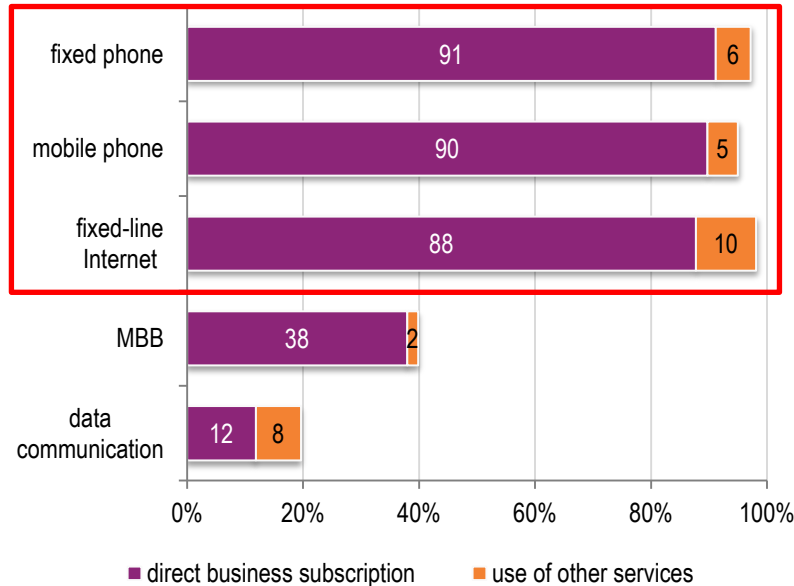
When will your present fixed-term contract expire?



Basis: organisations with a direct subscription who signed a fixed-term contract

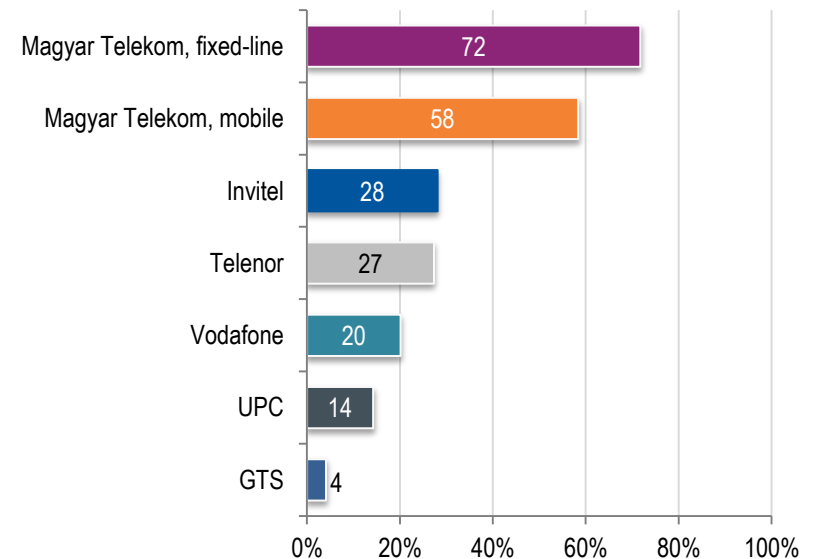
- An existing practice of service providers to inhibit switches by **automatic prolongation of a fixed-term contract**.
- About 7% experienced this hurdle when switching package or provider in the last 3 years, however, it is important to add that **latency may be rather high** because of organisational passivity.
- There are three groups that experienced this problem more often: male managers [9%], organisations in the business sector [9%], and those who expect a drop of their expenditures on electronic communication services in the next 12 months [18%].

Penetration of electronic communication services



Basis: all organisations, Total=39,016 [Business=30,753, Gov+NP=8263] [250+ emp.=1372, 50-249 emp.=6547, 10-49 emp.=31,097]

Direct business subscribers of all electronic communication services at the most significant service providers



Basis: all organisations, Total=39,016 [Business=30,753, Gov+NP=8263] [250+ emp.=1372, 50-249 emp.=6547, 10-49 emp.=31,097]

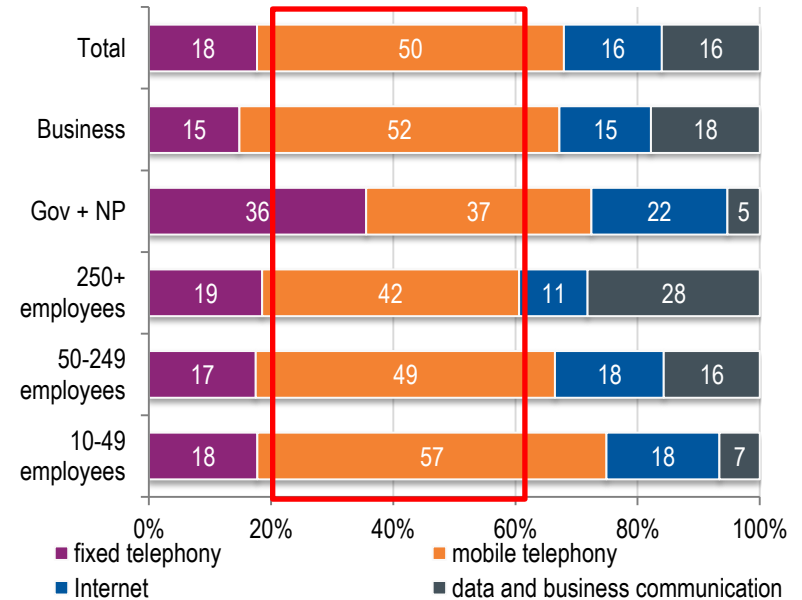
- Practically, all organisations with at least 10 employees use fixed phone, mobile phone, and fixed-line Internet while **about two-fifth have MBB service**. Only data communications services are less widespread, but 20% of organisations still use them.
- **Magyar Telekom** [fixed-line: c 27.8 thousand clients, mobile: c 22.6 thousand clients] have the most favourable positions in the market regarding the proportion of subscribers. Telenor and Invitel are in a tie for third place with 10.8-10.8 thousand clients, respectively.

The market of electronic communication services in 2015 [net sum, million HUF]

	Fixed telephony	Mobile telephony	Internet	Data and business communication	Total
Business	17,129	60,669	17,358	20,609	115,765
Gov + NP	6704	6950	4200	1000	18,854
250+ emp.	7997	18,194	4847	12,175	43,213
50-249 emp.	6463	18,109	6580	5805	36,957
10-49 emp.	9732	31,317	10,131	3630	54,810
Total	23,833	67,619	21,558	21,609	134,619

Basis: total expenditure on electronic communication services in 2015 [m HUF], Total=134,619 [Business=115,765, Gov+NP=18,854] [250+ emp.=43,213, 50-249 emp.=36,957, 10-49 emp.=54,810]

Structure of the market



Basis: total expenditure on electronic communication services in 2015 [m HUF], Total=134,619 [Business=115,765, Gov+NP=18,854] [250+ emp.=43,213, 50-249 emp.=36,957, 10-49 emp.=54,810]

- The whole market of electronic communications services can be estimated to be about 135 billion HUF. Mobile telephony takes the largest part [52%] while data and business communications make up 18%, fixed telephony and the Internet services make up 15-15% of the market, respectively.
- Expenditure on fixed-line services are overrepresented in the public and non-profit sector. In parallel, their expenditure on mobile services makes up a lower market share.
- Expenditure on data communication services of organisations with 250+ employees contributes above average to the whole market.