








ICT price data collection methodology

ICT price baskets

ITU price statistics refer to *ICT price baskets*, which are internationally comparable units of ICT services. Price data are currently collected for the five baskets shown in a schematic view in Figure 1. These baskets were introduced as of the 2021 data collection round, based on the agreement of the Expert Group on ICT/Telecommunication Indicators (EGTI)¹ at its meeting in September 2020. This document presents the detailed methodology used for selecting the representative operator, plan(s) and add-ons (if needed) in each economy in order to ensure international comparability.

Figure 1: ICT price baskets (from 2021)

| ICT price baskets | | Minimum monthly allowance | | |
|-------------------|---|---------------------------|---------|--------|
| | | Voice (min) | SMS (#) | Data |
| 1 | Data-only mobile-broadband basket  | - | - | 2 GB |
| 2 | Mobile data and voice low-consumption basket  | 70 | 20 | 500 MB |
| 3 | Mobile data and voice high-consumption basket  | 140 | 70 | 2 GB |
| 4 | Mobile-cellular low-usage basket  | 70 | 20 | - |
| 5 | Fixed-broadband basket  | - | - | 5 GB |

1. The data-only mobile broadband price basket

The data-only mobile broadband basket is based on a monthly data usage of a minimum of 2 GB. For plans that limit the monthly amount of data transferred by including data volume caps below 2 GB, the cost for the additional data (Megabytes) is added to the basket. The minimum speed of a broadband connection is 256 kbit/s, relying on 3G technologies or above. The data-only mobile broadband basket is chosen without regard to the plan's modality, while at the same time, early

¹ EGTI was created in May 2009 with the mandate to revise the list of ITU supply-side indicators (i.e. data collected from operators), as well as to discuss outstanding methodological issues and new indicators. EGTI is open to all ITU members and experts in the field of ICT statistics and data collection. It works through an online discussion forum (<http://www.itu.int/ITU-D/ict/ExpertGroup/default.asp>) and face-to-face meetings. EGTI reports to the World Telecommunication/ICT Indicators Symposium (WTIS).

termination fees for post-paid plans with annual or longer commitment periods are also taken into consideration.

The plans selected represent the least expensive offers that include the minimum monthly amount of 2 GB of data. The guiding principle is to base each plan on what customers could and would purchase given the data allowance and validity of each plan.

For plans that are limited in terms of validity (less than 30 days), the price of the additional days was calculated and added to the base package in order to obtain the final price. Two possibilities exist, depending on the operator, for extending a plan that is limited in terms of data allowance (or validity). The customer either (i) continues to use the service and pays an excess usage charge for additional data², or (ii) purchases an additional (add-on) package. Thus, for some countries, prices reflect the price of the base package plus an excess-usage charge (e.g. a base package including 1.5 GB plus the price for 500 MB of excess usage for a monthly usage of 2 GB), or a multiplication of the base package price (e.g. two times the price of a 1 GB plan for a monthly usage of 2 GB).

Prices for the data-only mobile broadband basket are collected using the following rules:

Rules applied in collecting mobile broadband price data

1. Prices should be collected based on 3G technologies or above, such as UMTS, HSDPA+/HSDPA, CDMA2000, IEEE 802.16e, LTE, LTE-Advanced and WiMAX/WirelessMAN, with an advertised download speed of at least 256 kbit/s. The plans should apply irrespective of the device used (mobile phones, tablets, USB dongles). Prices applying to WiFi or hotspots should be excluded.
2. Prices should be collected in the currency they are advertised, including taxes. If prices are not advertised in local currency, a note should be added specifying the currency.
3. Only residential, single user prices should be collected. If prices vary between different regions of the country or economy, prices applying to the largest city (in terms of population) or to the capital city should be provided.
4. The cheapest plan should be chosen without regard to the plan's modality (prepaid or postpaid). The modality of the reference plan should be recorded. When a postpaid plan is the cheapest plan, the minimum length of the contract should also be recorded in the notes.

Note: For the cheapest option, ideally a plan without a commitment period (but with a minimum 30-day validity period) should be selected. A plan with a longer commitment period can also be considered, but only if its monthly price is found cheaper after all relevant costs (such as connection fee, breakout charges or penalties) are included on a pro-rated basis in the assessment of total costs for the alternative options.

5. Mobile-broadband prices should be collected from the operator with the largest market share measured by the number of mobile-cellular subscriptions. If this information is not available, mobile-broadband prices should be collected from the mobile-cellular operator with the largest market share (measured by the number of mobile-cellular subscriptions) in the country or economy.

² Some operators throttle speeds after the data allowance included in the base package has been used up. Customers can then pay an excess-usage charge in order to continue to have full-speed connections. In some cases, even throttled speeds are still considered to be broadband (i.e. equal to or greater than 256 kbit/s, according to ITU's definition).

6. The validity period considered for the basket is 30 days or four weeks. If a plan with a validity less than the reference period is selected, it will be taken as many times as necessary to cover a period of four weeks. The cheapest plan on the basis of a validity period of 30 days or four weeks should be selected.
7. Price data should be collected for the cheapest plan with a data volume allowance of a minimum of the reference data volume per month (irrespective of the device used):

Mobile Broadband Data only: 2 GB, 3G and above (i.e., broadband speeds)

The selected plan should not necessarily be the one with the cap closest to the basket's reference data volume but include a minimum of the reference data volume. For example, if an operator offers a 500 MB and a 5 GB plan, the 5 GB plan or four times the 500 MB plan could be selected for the 2 GB data-only mobile-broadband basket. The cheapest option should be chosen. Alternatively, if an operator offers a 5 GB and a 1 GB plan, and allows consumers of the 1 GB plan to purchase a 1 GB data add-on, the cheapest of the 5 GB plan or the 1 GB plan with 1 GB plan should be chosen (provided the plan and add-on are compatible).

Data volumes should refer to both upload and download data volumes. If prices are linked to 'hours of use' and not to data volumes, this information should be added in a separate note

Note: ITU will most likely not be able to include these cases in a comparison.

8. Pay-as-you-go offers should be used when they are the cheapest option for a given basket or the only option available. If operators charge different pay-as-you-go rates depending on the time of the day (peak/off-peak), then the average of both should be recorded. Night-time data allowances will not be considered.
9. Even if the plan is advertised as 'unlimited', the fine print should be carefully reported since often there are limits in the data volumes (e.g., fair usage policies), either applied by throttling (limiting the speed below the minimum for broadband) or by cutting the service.
10. Non-recurrent fees, such as installation/set-up fees are not collected.
11. Preference should be given to the cheapest available package even if this is bundled with other services (with voice services, for example). If the plan chosen includes other services besides mobile-broadband access, these should be specified in a note. Zero-rated services (i.e., services that can be consumed besides the monthly data allowance, such as via certain platforms or applications) should be specified in a note and should not be counted in the total data allowance volume.
12. Prices refer to a regular (non-promotional) plan and exclude promotional offers and limited discounts or special user groups (for example, existing clients or age-defined groups). Special prices that only apply to a certain type of device (smartphone, tablet, etc.) should be excluded. Allowances during the night are not included.

A brief history of the basket

ITU has been collecting mobile broadband price data through its annual ICT Price Basket Questionnaire since 2012. The collection of mobile broadband price data from ITU Member States was agreed upon

by EGTI in 2012, and revised by EGTI in 2013 in the light of the lessons learned from the first data-collection exercise. The revised methodology was then applied in the 2014 data collection. Initially, a distinction based on the device used (computer-based, handset-based) as well as the contract modality (prepaid, postpaid) was applied. This was updated with the 2018 revision, whereby only one data-only mobile broadband basket was kept, irrespective of the device used, and prices referring to the most common contract modality (prepaid/postpaid) in the economy. This was then further updated in 2021, with the plan chosen without regard to the plan's modality, while at the same time, early termination fees for post-paid plans with annual or longer commitment periods are also taken into consideration.

2-3. The mobile broadband data-and-voice price baskets

The mobile data and voice low consumption basket is based on a monthly data usage of a minimum of 500 MB of data, 70 voice minutes, and 20 SMSs. The mobile data and voice high consumption basket is based on a monthly data usage of a minimum of 2 GB, 140 minutes, and 70 SMSs. For plans that limit the monthly amount of data transferred by including data volume caps below 500 MB (low-consumption) or 2 GB (high-consumption), the cost of the additional bytes is added to the basket. The minimum speed of a broadband connection is 256 kbit/s, relying on 3G technologies or above. The data-and-voice price basket is chosen without regard to the plan's modality, while at the same time, early termination fees for post-paid plans with annual or longer commitment periods are also taken into consideration.

Price baskets with a combination of data, voice and SMS were added by EGTI in the 2017 revision of the price baskets. To capture the prices of different data packages, covering low- and high-usage consumption patterns, data-and-voice price data are collected for two different thresholds for data, voice and SMS, based on a set of rules (see Annex Box 1.4). With the data threshold increased from 1.5GB to 2GB in 2021, the following mobile data-and-voice price baskets are now collected:

- a. Low-consumption data-and-voice basket: 70 minutes, 20 SMSs and 500 MB.
- b. High-consumption data-and-voice basket: 140 minutes, 70 SMSs and 2 GB.

For plans that are limited in terms of validity (less than 30 days), the price of the additional days is calculated and added to the base package in order to obtain the final price. Two possibilities exist, depending on the operator, for extending a plan that is limited in terms of data allowance (or validity). The customer either (i) continues to use the service and pays an excess usage charge for additional data,³ or (ii) purchases an additional (add-on) package. Thus, for some countries, prices reflect the price of the base package plus an excess-usage charge (e.g. a base package including 1.5 GB plus the price for 500 MB of excess usage for a monthly usage of 2 GB), or a multiplication of the base package price (e.g. twice the price of a 250 MB plan for a monthly usage of 500 MB).

The plans selected represent the least expensive offers that include the minimum amount of data for each respective data-and-voice basket. The guiding principle is to base each plan on what customers could and would purchase given the data allowance and validity of each plan.

³ Some operators throttle speeds after the data allowance included in the base package has been used up. Customers can then pay an excess-usage charge in order to continue to have full-speed connections. In some cases, even throttled speeds are still considered to be broadband (i.e. equal to or greater than 256 kbit/s, according to ITU's definition).

Rules applied in collecting data-and-voice price data

1. Prices should be collected based on 3G technologies or above, such as UMTS, HSDPA+/HSDPA, CDMA2000, IEEE 802.16e, LTE, LTE-Advanced and WiMAX/WirelessMAN, with an advertised download speed of at least 256 kbit/s. Prices applying to WiFi or hotspots should be excluded.
2. Prices should be collected in the currency they are advertised, including taxes. If prices are not advertised in local currency, a note should be added specifying the currency.
3. Only residential, single user prices should be collected. If prices vary between different regions of the country or economy, prices applying to the largest city (in terms of population) or to the capital city should be provided.
4. The cheapest plan should be chosen without regard to the plan's modality (prepaid or postpaid). The modality of the reference plan should be recorded. When a postpaid plan is the cheapest plan, the minimum length of the contract should also be recorded in the notes.
Note: For the cheapest option, ideally a plan without a commitment period (but with a minimum 30-day validity period) should be selected. A plan with a longer commitment period can also be considered, but only if its monthly price is found cheaper after all relevant costs (such as connection fee, breakout charges or penalties) are included on a pro-rated basis in the assessment of total costs for the alternative options.
5. Mobile-broadband prices should be collected from the operator with the largest market share measured by the number of mobile-cellular subscriptions.
6. The validity period considered for the basket is 30 days or four weeks. If a plan with a validity less than the reference period is selected, it will be taken as many times as necessary to cover a period of four weeks. The cheapest plan on the basis of a validity period of 30 days or four weeks should be selected.
7. Price data should be collected for data- and voice broadband baskets separately. Baskets may include stand-alone services, bundled services or a combination of the two as long as the cheapest options are selected that meet the following thresholds:
 - a. Low-consumption data-and-voice basket: 70 minutes, 20 SMS and 500 MB.
 - b. High-consumption data-and-voice basket: 140 minutes, 70 SMS and 2 GB.

The selected plan should not necessarily be the one with the data, voice and SMS allowances closest to the consumption set for each data-and-voice basket, but rather the cheapest including the minimum allowances set for each consumption profile. For example, if an operator offers a plan including 35 minutes, 10 SMS and 250 MB, and a plan including 1 GB and unlimited domestic voice and SMS, either twice the first plan (if the package can be purchased twice per month) or the second plan could be selected for the low-consumption data-and-voice basket. The cheapest option should be chosen. Alternatively, if an operator offers a i) 100 minutes, 100 SMS and 1 GB and ii) 70 minutes, 20 SMS and 250 MB plan, and allows consumers of this latter plan to purchase a 250 MB data add-on, the cheapest of the options i and ii should be chosen (provided the plan and add-on are compatible).

Data volumes should refer to both upload and download data volumes. If prices are linked to 'hours of use' and not to data volumes, this information should be added in a separate note.
Note: ITU will most likely not be able to include these cases in a comparison.

8. The excess price per voice minute should be reported as the on-net prices. If different peak and off-peak prices exist, an average shall be reported. If prices vary between minutes (1st minute = price A, 2nd minute = price B, call set-up rate= C), the per minute cost of a two-minute call should be reported (i.e. $(A+B+C)/2$). Call set-up rates should be included in the per-minute price of excess usage and indicated in the corresponding note. If the excess price reported corresponds to a package of minutes, the total price for the package should be reported and the number of minutes included should be specified in a note.
9. The excess price per SMS should be reported as the on-net SMS price. If different peak and off-peak prices exist, the average shall be reported. If the excess price reported corresponds to a package of SMS, the total price for the package should be reported and the number of SMS included should be specified in a note.
10. Pay-as-you-go offers should be used when they are the cheapest option for a given data-and-voice basket or the only option available. If operators charge different pay-as-you-go rates depending on the time of the day (peak/off-peak), then the average of both should be recorded. Nighttime data allowances will not be considered.
11. Even if the plan is advertised as 'unlimited', the fine print should be carefully reported since most often there are limits in the data volumes (e.g., fair usage policies), either applied by throttling (limiting the speed) or by cutting the service.
12. Non-recurrent fees, such as installation/set-up fees are not collected.
13. Preference should be given to the cheapest available package even if this is bundled with other services (e.g., online TV content). If the plan chosen includes other services besides data, voice and SMS, these should be specified in a note. Zero-rated services (i.e., services that can be consumed besides the monthly allowances, such as via certain platforms or applications) should be specified in a note and should not be counted in the total allowance.
14. Prices refer to a regular (non-promotional) plan and exclude promotional offers and limited discounts or special user groups (for example, existing clients or age-defined groups). Special prices that only apply to a certain type of device (smartphone, tablet, etc.) should be excluded. Allowances during the night are not included.

4. The mobile cellular low-usage basket

The mobile cellular basket refers to the price of a standard basket of 70 minutes and 20 SMS messages per month in predetermined on-net/off-net/fixed ratios.⁴ The mobile cellular basket is chosen without regard to the plan's modality, while at the same time, early termination fees for post-paid plans with annual or longer commitment periods are also taken into consideration.

Rules applied in collecting mobile cellular price data

1. The prices of the operator with the largest market share (measured by the number of subscriptions) are used. If prices vary between different regions of the country or economy, prices refer to those applied in the largest city (in terms of population) or in the capital city.
2. Prices should be collected in the currency they are advertised, including taxes. If prices are not advertised in local currency, a note should be added specifying the currency.
3. Where the operator offers different packages with a certain number of calls and/or SMS messages included, the cheapest one on the basis of 70 voice minutes and 20 SMS per month (i.e. with a 30-day validity) should be selected. If instead of a pay-per-use plan a package is selected for the whole basket (e.g. a bundle including 100 minutes, 50 SMS and 100MB) or for some of its elements (e.g. a package including 100 SMS), it should be indicated in the notes.
Note: For the cheapest option, ideally a plan without a commitment period (but with a minimum 30-day validity period) should be selected. A plan with a longer commitment period can also be considered, but only if its monthly price is found cheaper after all relevant costs (such as connection fee, breakout charges or penalties) are included on a pro-rated basis in the assessment of total costs for the alternative options.
4. The cheapest plan should be chosen without regard to the plan's modality (prepaid or postpaid). The modality of the reference plan should be recorded. When a postpaid plan is the cheapest plan, the minimum length of the contract should also be recorded in the notes.
5. If per-minute prices are only advertised in internal units rather than in national currency, the price of the top-up/refill charge is used to convert internal units into national currency. If there are different refill prices, then the 'cheapest/smallest' refill card is used. If different refill charges exist depending on the validity period, the validity period for 30 days (or closest to 30 days) is used.
6. Prices refer to a regular (non-promotional) plan and exclude special or promotional offers, limited discounts or options such as special prices to certain numbers or restricted to new customers, or plans where calls can only be made during a limited number of (or on specific) days during the month.
7. If subscribers can choose "favourite" numbers (for family, friends, etc.) with a special price, this special price will not be taken into consideration, irrespective of the quantity of numbers involved.

⁴ On-net refers to a call made to the same mobile network, while off-net and fixed-line refer to calls made to other (competing) mobile networks and to a fixed-telephone line, respectively.

8. Prices refer to outgoing local calls. If different rates apply for local and national calls, then the local rate is used. If different charges apply depending on the mobile operator called, the price of calls to the operator with the second largest market share (measured by the number of subscriptions) should be used, indicating in the notes the rates of calling to other mobile operators. If charges apply to incoming calls, these are not taken into consideration.
9. If prices vary between minutes (1st minute = price A, 2nd minute = price B), the per minute cost of a two-minute call should be reported (for example: price per minute = $(A+B)/2$). Call set-up rates should not be included in the per minute price, but reported under indicator i153_low_pc.
10. If prices vary beyond two minutes, the average price per minute is calculated based on the actual cost of two minutes.
11. If there is a connection cost per call, then this is taken into consideration in the formula for the mobile-cellular basket, based on 35 calls.
12. If there are different off-peak prices, then the one that is the cheapest before midnight is used. If the only off-peak period is after midnight, then this is not used. Instead, the peak price is used.
13. If there are different peak prices, the most expensive one during the daytime is used.
14. If peak and off-peak SMS prices exist, the average of both is used for on-net and off-net SMS.
15. If calls are charged by call or by hour (and not by the minute), the mobile-cellular basket formula will be calculated on the basis of 35 calls or 70 minutes. Similarly, if calls are charged by call or by number of minutes for a specific network/time of the day, this will be taken into account for that particular network/time of the day.
16. Where monthly, recurring charges exist, they are added to the basket.

A brief history of the basket

The previous mobile cellular basket was based on the 2009 methodology of the Organisation for Economic Co-operation and Development (OECD) low-usage basket, which is the entry-level basket with the lowest number of calls included. In light of the changes in the market, at the 2017 meeting of EGTI a subgroup was created to study how to improve the baskets to better reflect the consumption patterns in the markets. The subgroup collected evidence on average consumption of voice, SMS and data services from a large set of countries. Based on this exercise, the mobile cellular basket composition was updated to a low-usage mobile cellular basket that includes 70 minutes and 20 SMSs per month, in predetermined ratios (Annex Table 1.1). The prices are collected for the largest mobile operator. The ITU mobile cellular basket does not take into account calls to voicemail or non-recurring charges, such as the one-time charge for a SIM card. The cost of a national SMS is the charge to the consumer for sending a single SMS text message. Both on-net and off-net SMS prices are taken into account. The basket considers on-net and off-net calls as well as calls to a fixed telephone.

Table 1: Mobile cellular low-usage basket, call and SMS distribution

| | To fixed | On-net | Off-net | TOTAL |
|-----------------------------|----------|--------|---------|-------|
| Call distribution (%) | 7 | 67 | 26 | 100 |
| Call distribution (minutes) | 4.9 | 46.9 | 18.2 | 70 |
| SMS | | 10 | 10 | 20 |

Source: ITU.

Another significant change to the new mobile cellular basket is the contract modality. Until 2018, only prepaid prices were collected for mobile cellular prices. Between 2018-2020, prices refer to the most common contract modality (prepaid/postpaid) in the economy concerned. If more than 50 per cent of mobile cellular subscriptions were postpaid, then a postpaid plan was chosen. Otherwise a prepaid plan would have been selected. However, in order to reflect market reality, from 2021 onwards, the plan is chosen without regard to the plan’s modality, while at the same time, early termination fees for post-paid plans with annual or longer commitment periods are also newly taken into consideration.

5. The fixed broadband basket

The fixed broadband basket refers to the price of a monthly subscription to an entry-level fixed-broadband plan. For comparability reasons, the fixed-broadband basket is based on a monthly data usage of a minimum of 5 GB. For plans that limit the monthly amount of data transferred by including data volume caps below 5 GB, the cost for the additional bytes is added to the basket. The minimum speed of a broadband connection is 256 kbit/s.

Where several offers are available, preference is given to the cheapest available connection that offers a speed of at least 256 kbit/s and 5 GB of data volume. Where providers set a limit of less than 5 GB on the amount of data that can be transferred within a month, then the price per additional byte is added to the monthly price in order to calculate the cost of 5 GB of data per month. Preference is given to the most widely used fixed (wired)-broadband technology (DSL, fibre, cable, etc.). The basket does not include the installation charges, modem prices or telephone-line rentals that may be required for a DSL service. The price represents the broadband entry plan in terms of the minimum speed of 256 kbit/s, but does not take into account special offers that are limited in time or to specific geographical areas. The plan does not necessarily represent the fastest or most cost-effective connection since the price for a higher-speed plan is often cheaper in relative terms (i.e. in terms of the price per Mbit/s).

Rules applied in collecting fixed-broadband Internet price data

1. The prices of the operator with the largest market share (measured by the number of fixed-broadband subscriptions) should be used.
2. Prices should be collected in the currency they are advertised, including taxes. If prices are not advertised in local currency, a note should be added specifying the currency.
3. Only residential, single user prices should be collected. If prices vary between different regions of the country or economy, prices applying to the largest city (in terms of the population)

should be provided. If that information is not available, prices applying to the capital city should be reported. The selected city should be mentioned in a note in the monthly subscription indicator.

4. From all fixed-broadband plans meeting the above-mentioned criteria, the cheapest one on the basis of a 5GB monthly usage and an advertised download speed of at least 256 kbit/s should be selected. If there is a price distinction between residential and business tariffs, the residential tariff should be used.
5. If the plan selected has no limit for the monthly data usage, enter the required cap for the basket (e.g., 5 GB), add “unlimited” in the notes for the cap and enter in the respective indicator.
6. Plans with limited hours of use will not be considered.
7. In case operators propose different commitment periods, the 12-month plan (or the one closest to this commitment period should be used. If the plan selected requires a longer commitment (i.e. above 12 months), it should be indicated in the note of the monthly subscription. Furthermore, if there are different prices (for example, a discounted price for the first year, and a higher price as of the 13th month), then the price after the discount period should be selected (e.g. the price as of the 13th month). The discounted price charged during the initial period should be indicated in a note under the monthly subscription charge. The reason is that the initial price paid is considered a limited/discounted price, while the other one is the regular price.
8. Prices should be collected for the fixed-broadband (access) technology with the greatest number of subscriptions in the country or economy (FTTH, DSL, cable, etc.).
9. The same price plan should be used for collecting all the data specified. For example, given Plan A is selected for the fixed-broadband service, according to the criteria mentioned above, the elements in Plan A apply to the monthly subscription, to the price of the excess charge, the volume of data that can be downloaded, etc.
10. Prices should be collected for regular (non-promotional) plans and should not include promotional offers or limited or restricted discounts (for example, only to students, or to already existing customers, etc.).
11. With convergence, operators are increasingly providing multiple (bundled) services such as voice telephony, Internet access and television reception over their networks. They often bundle these offers into a single subscription. This can present a challenge for price data collection since it may not be possible to isolate the prices for one service. In case a bundled service is the cheapest available option to meet the minimum threshold, this bundle should be used.

Data sources

Price data

Since 2020, price data have been collected in the second quarter of the year. Up to 2018, price data were collected in the fourth quarter, while in 2019, price data were collected in the first quarter of the year. From 2018 onwards, all data were collected through the ITU ICT Price Basket Questionnaire, which was sent to the administrations and statistics contacts of 220 economies.⁵ Through the questionnaire, contacts were requested to provide data for fixed broadband prices; mobile cellular low-usage prices; data-only mobile broadband prices; and voice-and-data-prices (low and high consumption). For those economies that did not reply to the ITU ICT Price Basket Questionnaire, price data were collected directly from operator websites and/or through direct correspondence with the operator. All submitted data was subsequently verified by ITU against operator websites. Price data were collected from the operator with the largest market share, as measured by the number of subscriptions. If it was not clear which Internet service provider (ISP) had the dominant market share, preference was given to the (former) incumbent telecommunication operator. In some cases, especially where prices were not clearly advertised or were indicated only in the local language, and where operators did not respond to queries, alternative operators were chosen.

Exchange rates

For international comparison, all prices were converted into United States dollars using IMF's average rate of exchange for the second quarter of 2021⁶, and into PPP\$ using World Bank conversion factors for 2020 (as published in July 2021). Prices are also presented as a percentage of countries' monthly GNI p.c. using GNI p.c. values from the World Bank for 2020 (as published in July 2021). Price data for 2008 to 2018, which are also shown and used in this publication, were collected in previous years (always during the second half of the respective year), in national currencies, and converted using the same sources.

Recent changes in the methodology

The global telecommunications market is rapidly evolving as new technologies are deployed and consumer preferences and usage patterns change. EGTI therefore revisits the basket definitions from time to time to align with changing market realities. The revision agreed in 2020 and applied in 2021 updates the definitions for ICT price baskets in place from 2018 up to 2020, which replaced the methodology in place from 2013 to 2017. Figures 2 and 3 offer an overview of the previous basket compositions.

⁵ Up to 2017, data were collected through the ITU ICT Price Basket Questionnaire, with the exception of data on mobile broadband prices, which were collected directly from operator websites.

⁶ For economies where IMF's average rate of exchange for the second quarter was not available, data was used for the first quarter; if also unavailable, the UN Operational exchange rate for the second quarter was used when available.

Figure 2: ICT price baskets from 2018 up to 2020

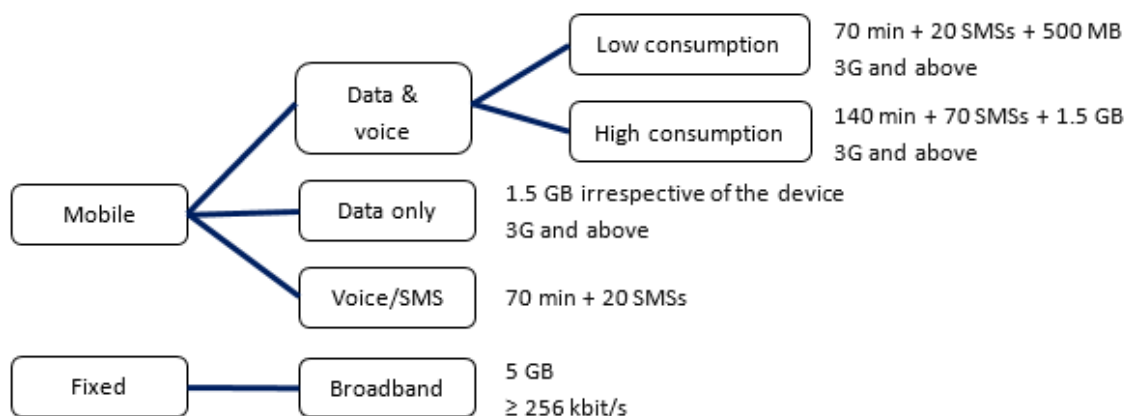
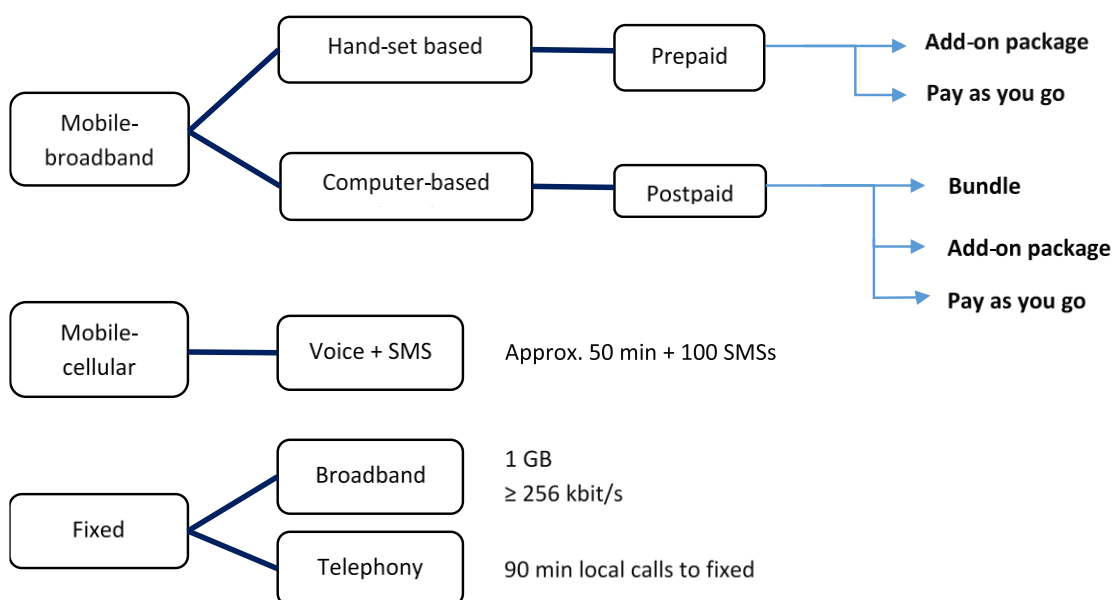


Figure 3: ICT price baskets up to 2017



The main methodological changes to the methodology agreed in 2020 were the following:

- Increase the data allowance included in the data-only mobile broadband and mobile data and voice high-consumption baskets from 1.5 GB to 2 GB;
- Relax the strict interpretation of bundles as stand-alone services for the data and voice low- and high-consumption baskets, and instead apply the looser “basket” approach that allows selecting relevant plans (and, as needed, add-ons), given difficulties during previous data collection; as a result, the previous basket names of low- and high-consumption bundles were replaced by mobile data and voice low- and high-consumption baskets
- Relax the contract modality requirement for mobile baskets, so that the cheapest available plan meeting the allowance thresholds can be selected from the representative operator, irrespective whether it is prepaid or postpaid (rather than following the dominant modality in an economy). At the same time, early termination fees for post-paid plans with annual or longer commitment periods were also newly taken into consideration.