- By the end of 2010, there will be an estimated 5.3 billion mobile cellular subscriptions worldwide, including 940 million subscriptions to 3G services.

- Access to mobile networks is now available to 90% of the world population and 80% of the population living in rural areas.

- People are moving rapidly from 2G to 3G platforms, in both developed and developing countries. In 2010, 143 countries were offering 3G services commercially, compared to 95 in 2007.

- Towards 4G: a number of countries have started to offer services at even higher broadband speeds, moving to next generation wireless platforms – they include Sweden, Norway, Ukraine and the United States.
- Mobile cellular growth is slowing worldwide. In developed countries, the mobile market is reaching saturation levels with on average 116 subscriptions per 100 inhabitants at the end of 2010 and a marginal growth of 1.6% from 2009-2010.

- At the same time, the developing world is increasing its share of mobile subscriptions from 53% of total mobile subscriptions at the end of 2005 to 73% at the end of 2010.

- In the developing world, mobile cellular penetration rates will reach 68% at the end of 2010 - mainly driven by the Asia and Pacific region. India and China alone are expected to add over 300 million mobile subscriptions in 2010.

- In the African region, penetration rates will reach an estimated 41% at the end of 2010 (compared to 76% globally) leaving a significant potential for growth.
The total number of SMS sent globally tripled between 2007 and 2010, from an estimated 1.8 trillion to a staggering 6.1 trillion. In other words, close to 200 000 text messages are sent every second.

Assuming an average cost of USD 0.07 per SMS, in 2010 SMS traffic is generating an estimated USD 812 000 every minute (or around USD 14 000 every second).

In 2009, SMS revenue accounted for 12% of China’s largest mobile operator’s total revenue.

The Philippines and the United States combined accounted for 35% of all SMS sent in 2009.
Two billion people on the Internet...  
... but too few in Africa

- The number of Internet users has doubled between 2005 and 2010.
- In 2010, the number of Internet users will surpass the two billion mark, of which 1.2 billion will be in developing countries.
- A number of countries, including Estonia, Finland and Spain have declared access to the Internet as a legal right for citizens.
- With more than 420 million Internet users, China is the largest Internet market in the world.
- While 71% of the population in developed countries are online, only 21% of the population in developing countries are online. By the end of 2010, Internet user penetration in Africa will reach 9.6%, far behind both the world average (30%) and the developing country average (21%).

Note: *Estimate
Source: ITU World Telecommunication/ICT Indicators database
While in developing countries 72.4% of households have a TV, only 22.5% have a computer and only 15.8% have Internet access (compared to 98%, 71% and 65.6% respectively in developed countries).

At the end of 2010, half a billion households worldwide (or 29.5%) will have access to the Internet.

In some countries, including the Republic of Korea, Netherlands and Sweden, more than 80% of households have Internet access, almost all of them through a broadband connection.

The number of people having access to the Internet at home has increased from 1.4 billion in 2009 to almost 1.6 billion in 2010.

Note: Data refer to 2010 and are estimates
Source: ITU World Telecommunication/ICT Indicators database
The continuing broadband divide

- There has been strong growth in fixed (wired) broadband subscriptions, in both developed and developing countries: at the end of 2010, fixed (wired) broadband subscriptions will reach an estimated 555 million globally (or 8% penetration), up from 471 million (or 6.9% penetration) a year earlier.

- Despite these promising trends, penetration levels in developing countries remain low: 4.4 subscriptions per 100 people compared to 24.6 in developed countries.

- The developing world’s share of fixed (wired) broadband subscriptions is growing steadily: by the end of 2010, the developing world will account for an estimated 45% of global subscriptions (up from 42% five years earlier).

- Africa still lags behind when it comes to fixed (wired) broadband. Although subscriptions are increasing, a penetration rate of less than 1% illustrates the challenges that persist in increasing access to high-speed, high-capacity Internet access in the region.
Broadband speed and affordability

Time needed to download online content at different connection speeds

<table>
<thead>
<tr>
<th>Content</th>
<th>Connection speed</th>
<th>256kbps</th>
<th>2Mbps</th>
<th>10Mbps</th>
<th>100Mbps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google home page (160 KB)</td>
<td>256kbps</td>
<td>00:00:05</td>
<td>00:00:01</td>
<td>00:00:00</td>
<td>00:00:00*</td>
</tr>
<tr>
<td>Music track (5MB)</td>
<td>256kbps</td>
<td>00:02:36</td>
<td>00:00:20</td>
<td>00:00:04</td>
<td>00:00:00*</td>
</tr>
<tr>
<td>Video clip (20MB)</td>
<td>256kbps</td>
<td>00:10:25</td>
<td>00:01:20</td>
<td>00:00:16</td>
<td>00:00:02*</td>
</tr>
<tr>
<td>CD / low quality movie (700MB)</td>
<td>256kbps</td>
<td>06:04:35</td>
<td>00:46:40</td>
<td>00:09:20</td>
<td>00:00:56</td>
</tr>
<tr>
<td>DVD / high quality movie (4GB)</td>
<td>256kbps</td>
<td>34:43:20</td>
<td>04:26:40</td>
<td>00:53:20</td>
<td>00:05:20</td>
</tr>
</tbody>
</table>

* Rounded values.

Source: ITU calculation.

With the rapidly increasing high-bandwidth content and applications on the Internet, there is a growing demand for higher-speed connections. For example, at the minimum broadband speed of 256 kbps, downloading a high-quality movie takes almost 1½ days - compared to 5 minutes at a connection speed of 100 Mbps.

- Fixed (wired) broadband prices dropped by 42% between 2008 and 2009 but there are huge differences among countries when it comes to the affordability of broadband: in 2009, an entry-level fixed (wired) broadband connection cost on average 190 PPP$ per month in developing countries, compared to only 28 PPP$ per month in developed countries. This has significant implications for the uptake of ICT services, which is much higher for lower-cost mobile cellular compared to higher-priced fixed broadband.
For more information:

Market Information and Statistics Division
Telecommunication Development Bureau
International Telecommunication Union (ITU)

Place des Nations
1211 Geneva 20 - Switzerland

indicators@itu.int
www.itu.int/ITU-D/ict/