GSMA™ Intelligence

Definitive data and analysis for the mobile industry

Mobile Economic Impact

Algeria

April 2018

The GSMA represents the interests of mobile operators worldwide, uniting more than 750 operators with nearly 400 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and internet companies, as well as organisations in adjacent industry sectors. The GSMA also produces the industry-leading MWC events held annually in Barcelona, Los Angeles and Shanghai, as well as the Mobile 360 Series of regional conferences.

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GSMA Intelligence

GSMA Intelligence is the definitive source of global mobile operator data, analysis and forecasts, and publisher of authoritative industry reports and research. Our data covers every operator group, network and MVNO in every country worldwide – from Afghanistan to Zimbabwe. It is the most accurate and complete set of industry metrics available, comprising tens of millions of individual data points, updated daily.

GSMA Intelligence is relied on by leading operators, vendors, regulators, financial institutions and third-party industry players, to support strategic decision-making and long-term investment planning. The data is used as an industry reference point and is frequently cited by the media and by the industry itself.

Our team of analysts and experts produce regular thought-leading research reports across a range of industry topics.

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Summary

Part 1 State of industry

Algeria has subscribers and mobile internet penetration over 70%, on par with more developed markets.

However, the market is lagging behind MENA in 4G, smartphone penetration and usage of mobile internet.

Promoting more and better infrastructure, consumer and content readiness is required to unlock the full economic impact potential of mobile

Part 2 Economic impact in 2017

Total impact

In 2017 the mobile ecosystem generated 3.7% of GDP, or 6.7 bn. $ in value added.

This will raise to 3.9% by 2022, or 7.6 bn $., primarily due to increased take-up and usage of mobile internet

Role of device manufacturing and content, apps and services activity also expected to expand

Employment

Firms in the mobile ecosystem created 26,000 direct jobs in 2017

Their activity also supported the indirect employment of 72,000 people

This includes formal and informal employment, the latter being primarily associated to distribution and retail of mobile devices and services

Public funding

Their contribution to public funding summed up 2.2% of government revenue (1.1 bn. $)

Half of the value added directly created by the mobile industry is kept by the government

Algeria has the highest number of mobile sector-specific taxes in MENA

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Summary

Part 2 Economic impact in 2017

We expect continued growth in the economic impact of mobile in the period to 2022

	Total impact	Direct employment	Indirect employment	Public funding
2017	**3.7% GDP** 6.7 $ bn	**26,000 direct jobs**	**72,000 indirect jobs**	**2% Government tax revenue** 1.1 $ bn
2022	**3.9% GDP** 7.6 $ bn	**30,000 direct jobs**	**77,000 indirect jobs**	**2.3% Government tax revenue*** 1.25 $ bn

*Calculated on the basis of 2017 government tax revenue

Source: GSMA Intelligence analysis

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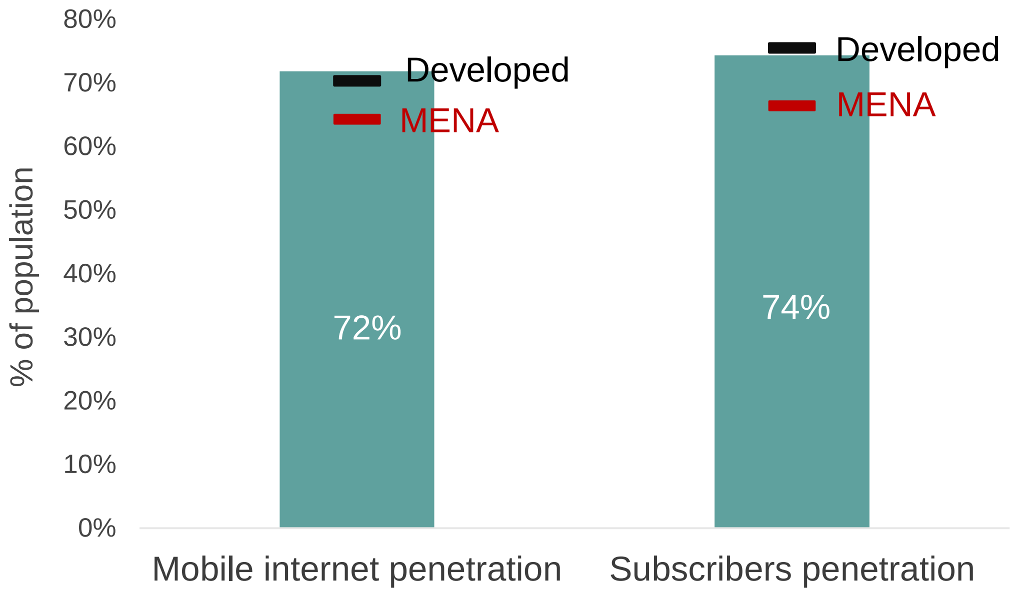
1. State of the industry

Mobile Economic Impact: Algeria

State of the industry: (1) mobile take up

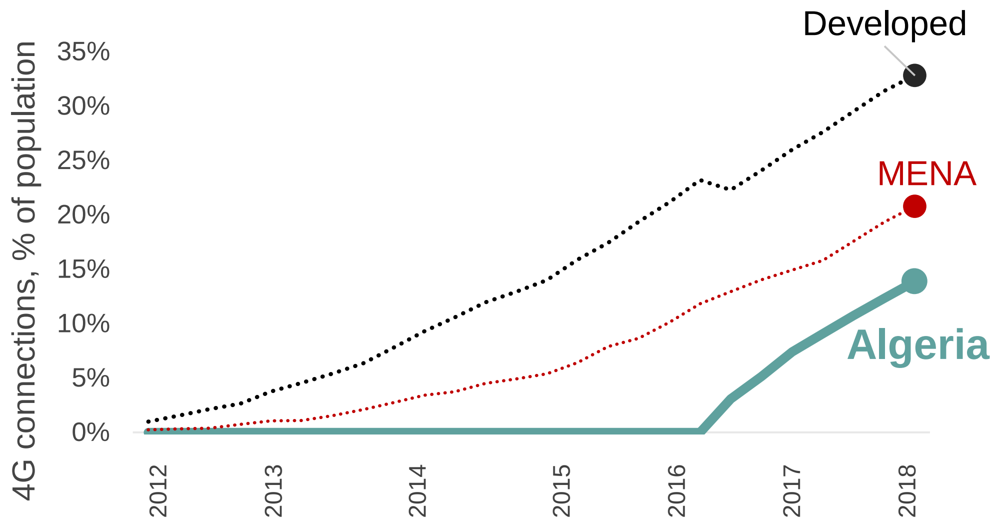
Algeria's subscribers and mobile internet penetration is in line with more developed countries

It slightly outperforms MENA countries, with rates close to more developed markets as of Q1 2018.



However, Algeria is lagging behind 4G and smartphone penetration

4G penetration is only 12%, 7 percentage points below MENA and half that of more developed countries.



Smartphone penetration

Algeria 44%

MENA 58%

Developed 65%

Data source: GSMA Intelligence

State of the industry: (2) consumer profile

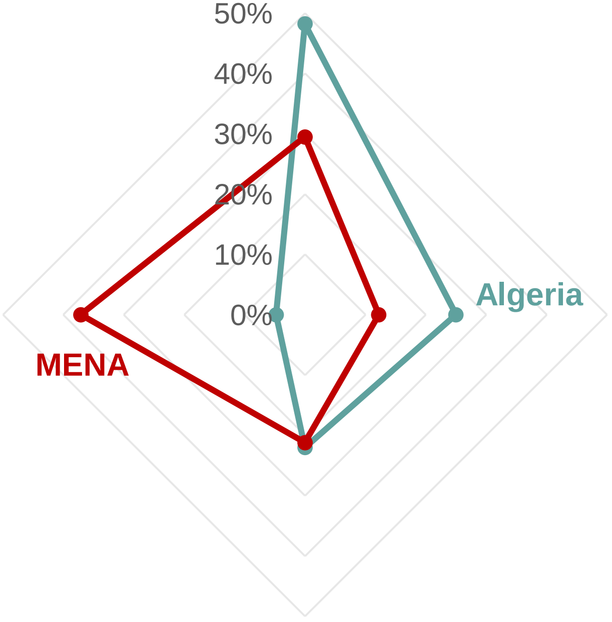
- Partly due to the low 4G take up and all the applications and uses that this brings, almost 80% of Algerian consumers mainly use mobile phones for traditional communications and basic mobile internet use cases ('Talkers' or 'Networkers')
- Few users in Algeria use mobile internet intensively, resulting in an **intense gap in the 'Aficionados' segment**. MENA countries have in general a much more engaged consumer profile

50% of Algerian consumers are 'Talkers'

- *Mobile phones used essentially for voice/SMS*
- *Still experimenting with internet (web browsing, online news)*
- *Never uses their phones for media, e-commerce, financial services*
- *Almost never downloads apps and no interest in social networking*
- *Connected to 3G*

<u>Consumer segmentation</u>

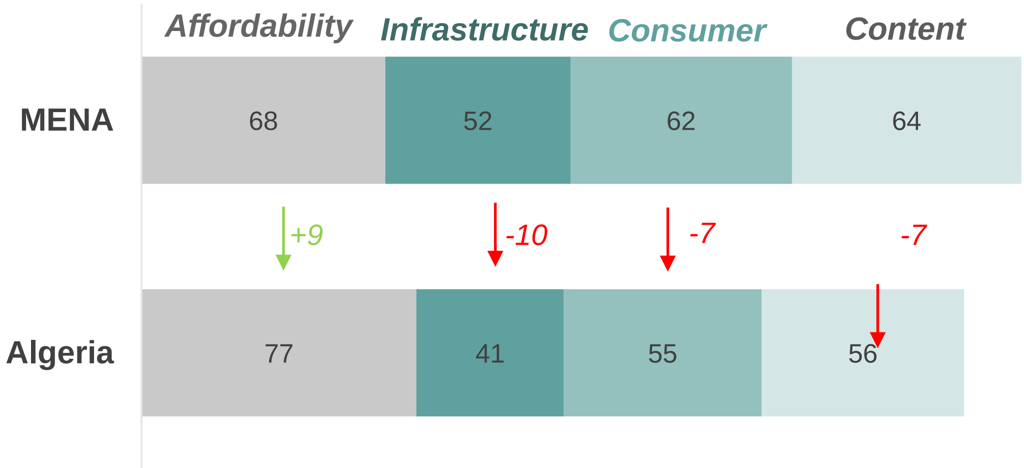
Global Mobile Engagement Index



Global Mobile Engagement Index (GSMA Intelligence). Includes smartphone and non-smartphone profiles

State of the industry: (3) connectivity enablers

Mobile Connectivity Index 2017



The score of each enabler can range from 0 to 100

Algeria's lag in 4G and smartphone penetration is due to lack of infrastructure, content and consumer readiness

- Algeria is a strong performer in affordability. However, its infrastructure, consumer and content and services scores are substantially below MENA's average.
- Infrastructure and content scores have improved over the last three years, but consumer readiness has not made progress

Key areas of improvement in the MCI

Dimensions with scores < 70% that of developed markets

Infrastructure

- *Network coverage*
- *Network quality*
- *Spectrum*

Consumer readiness

- *Gender inequality*
- *Inequality in general*

Content

Local relevance of content

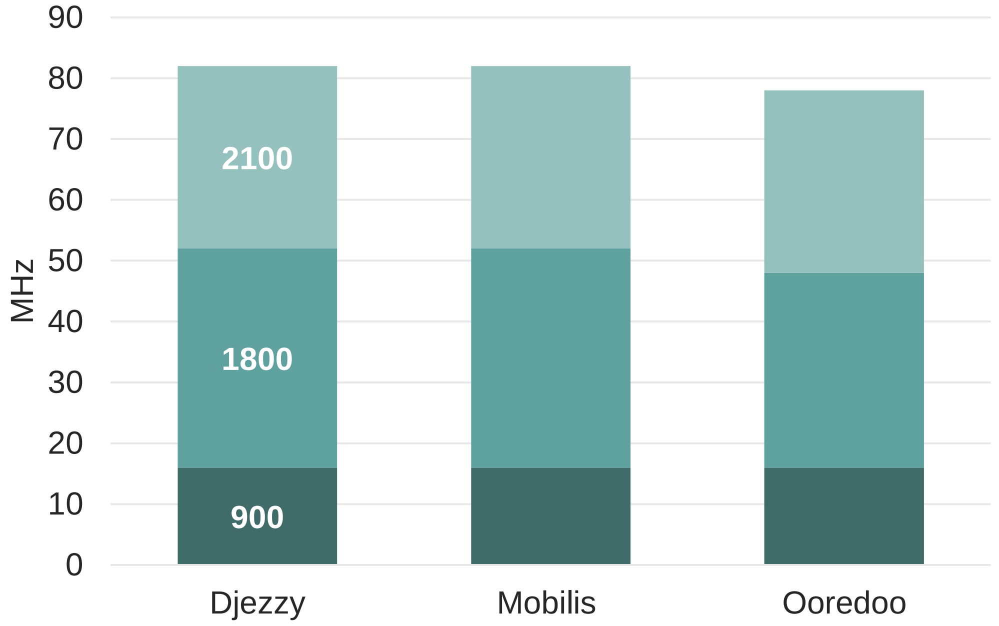
Data: Mobile Connectivity Index (2017). The MCI measures the performance of 150 countries against four key enablers of mobile internet connectivity: infrastructure, affordability, consumer readiness and content relevance.

State of the industry: (4) spectrum

Poor infrastructure performance is partly due to little spectrum available to mobile services

- In total, Algeria has allocated 242 MHz for mobile services. This is only the 65% of the spectrum assigned on average in MENA countries.
- Only three bands have been assigned to MNOs– some MENA countries have already assigned Digital Dividend (700 and 800 MHz) or even 2.6 GHz.
- Djezzy and Mobilis have the same assignments, with Ooredoo 4 MHz less in the 1800 range.

Spectrum assignments (2018)



Total of *242 MHz for mobile services* – compared to average of 377 MHz in MENA

Data source: GSMA Intelligence

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2. Economic impact of the mobile ecosystem

Mobile Economic Impact: Algeria

Economic impact of the mobile ecosystem in 2017

The mobile industry makes an important contribution to Algeria's economy

The economic value generated by the mobile ecosystem is through its direct, indirect and productivity impacts.

Mobile ecosystem*

- **MNOs**
- **Device manufacturing**
- **Distributors and Retailers** — *Informal Sector*
- **Infrastructure providers**
- **Content, Apps and Services**

Direct impact — **Ecosystem firms**: Ecosystem firms´ wages, business operating surplus and taxes

+

Indirect impact — **Intermediate inputs**: Ecosystem firms purchase goods and services from other industries

+

Productivity impact — **Mobile technology use**: Use of mobile technology improves access to information and reduces transaction costs

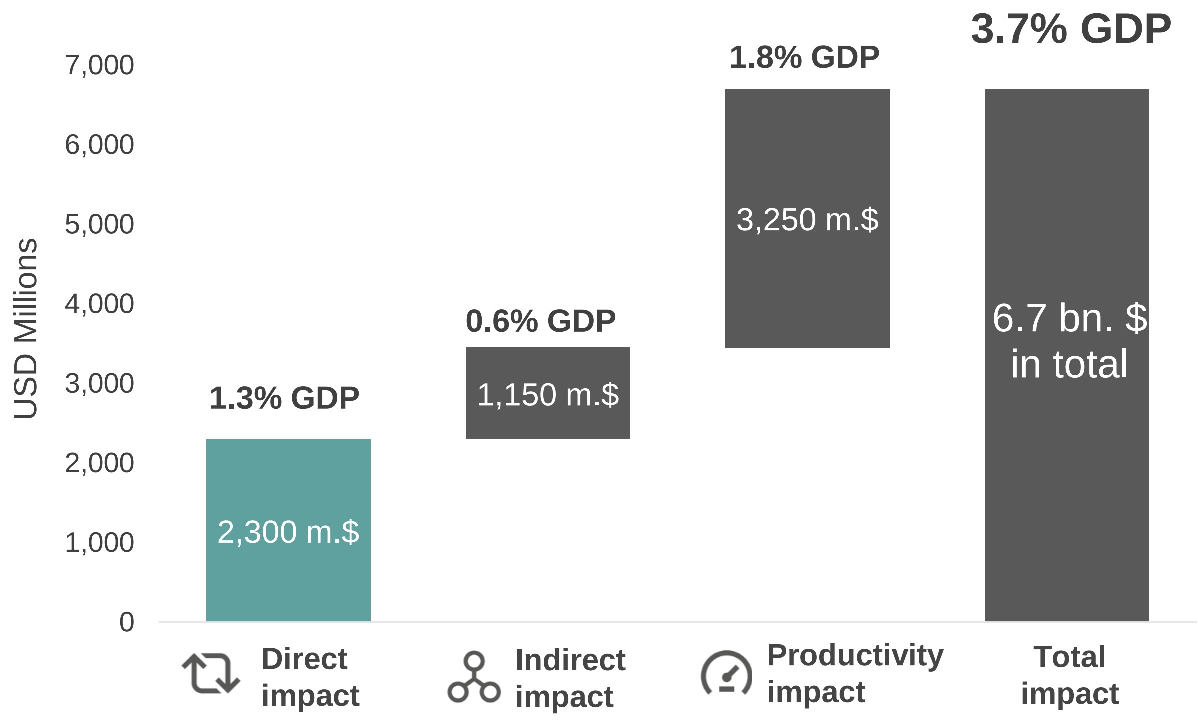
=

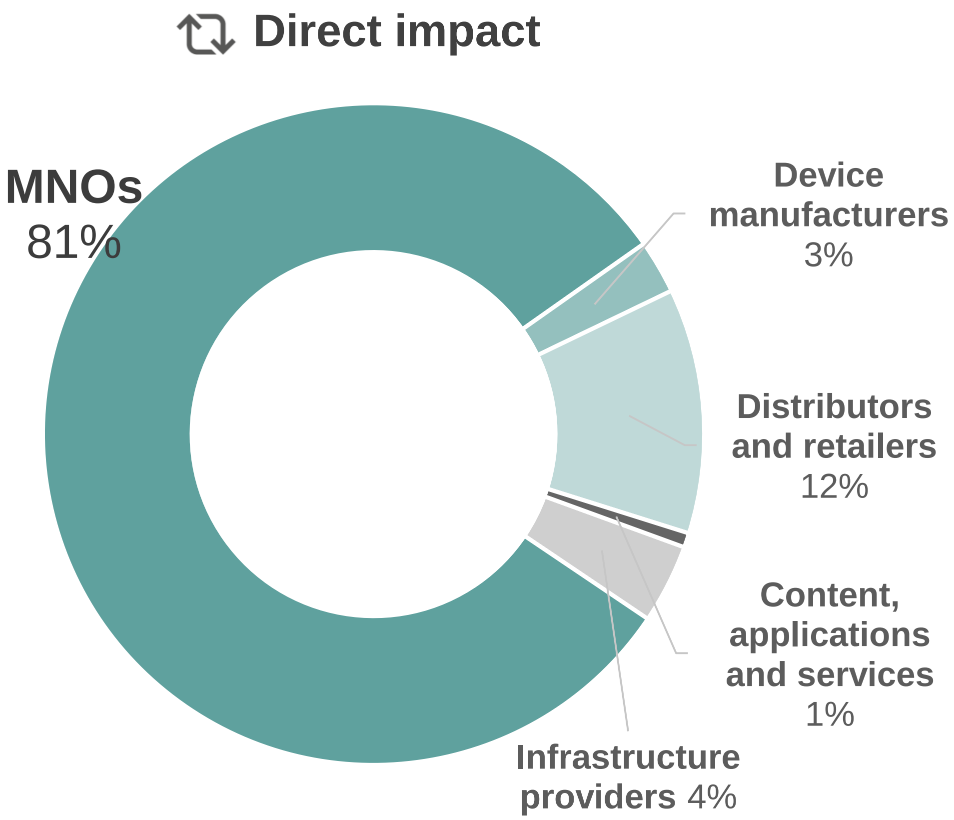
GDP impact

* Selected firms

Economic impact of the mobile ecosystem in 2017

1. Total contribution to GDP





Ecosystem firms value added: wages, taxes and business surplus

Knock-on effect in sectors providing inputs in the supply chain of mobile goods and services

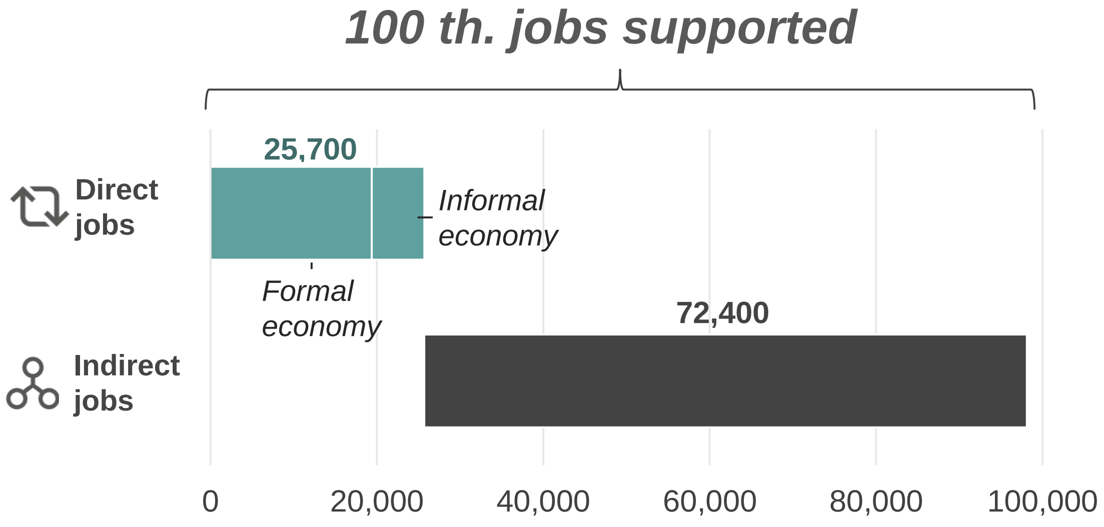
Improved efficiency throughout the economy via the use of mobile technology

Source: GSMA Intelligence analysis

Intelligence

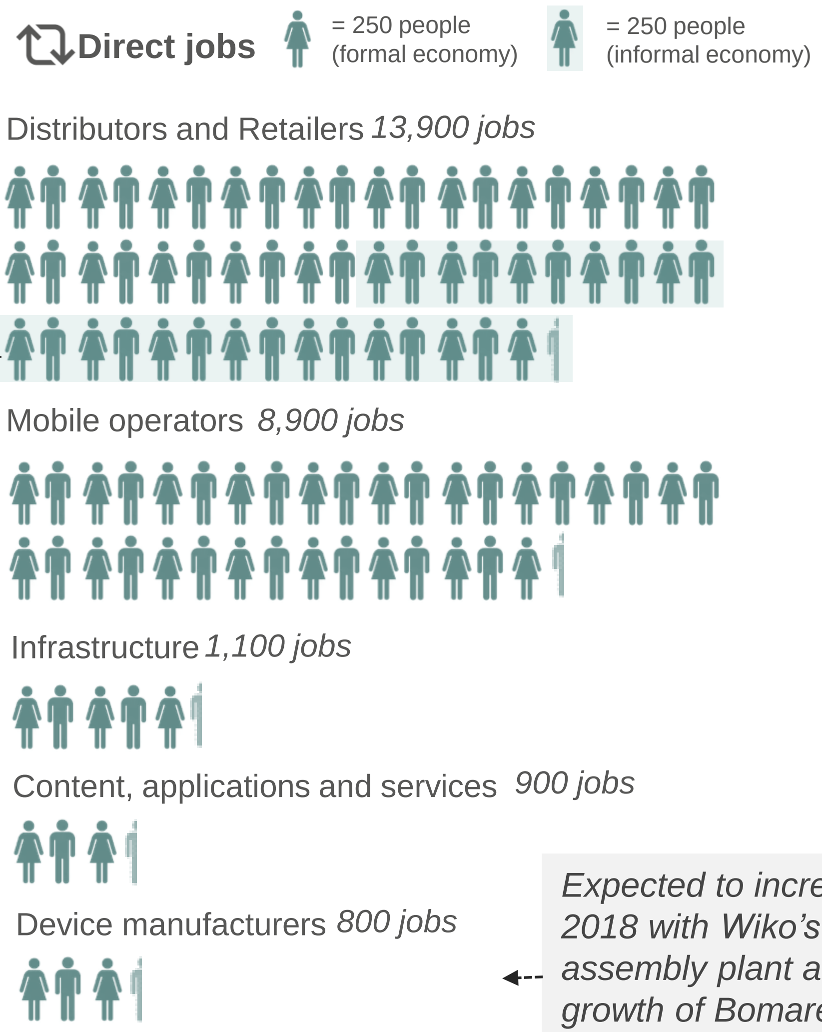
Economic impact of the mobile ecosystem in 2017

2. Employment impact



One fourth of jobs were created directly in the ecosystem, and the rest was produced through the knock-on effect on the sectors that provide inputs for mobile goods and services.

Informal employment is mainly driven by the Distribution and Retail sector, which has higher informality levels, more in line with a large part of the Algerian economy.

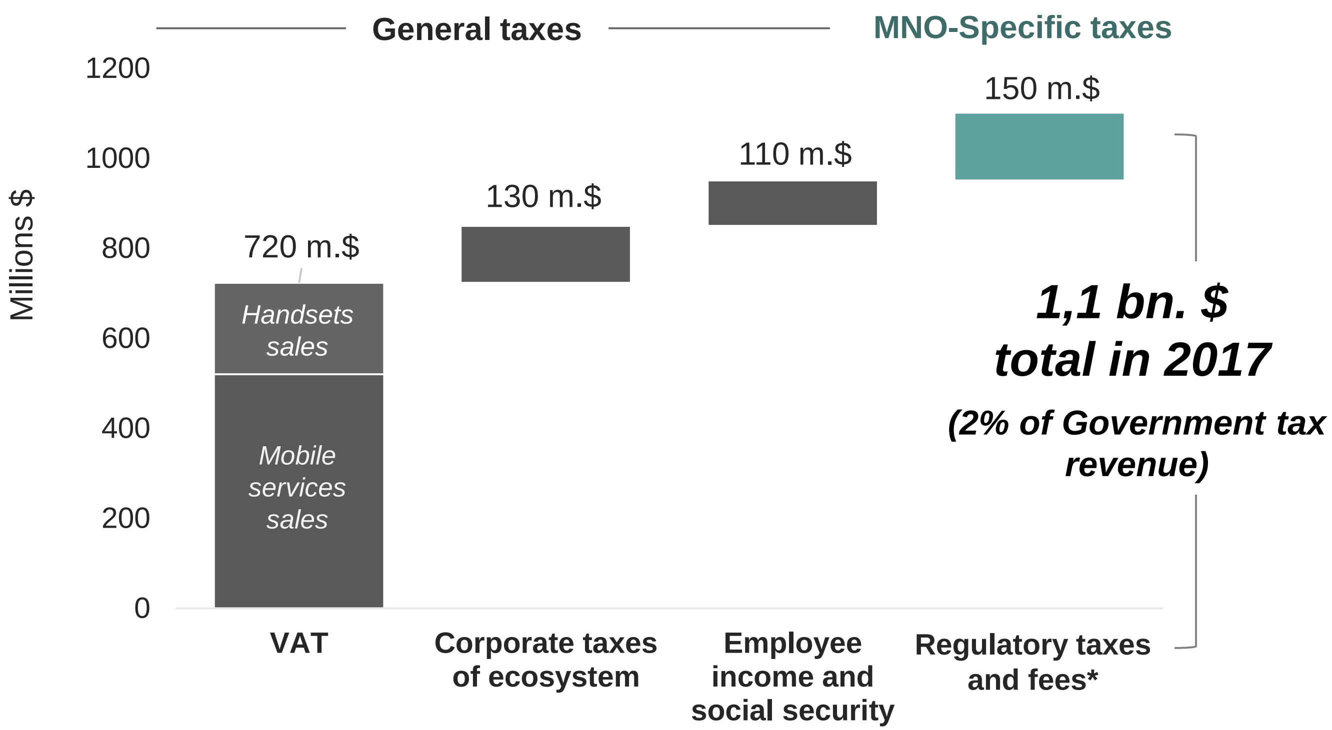


Expected to increase in 2018 with Wiko's new assembly plant and growth of Bomare Co. and Wiko's.

Source: GSMA Intelligence analysis

Economic impact of the mobile ecosystem in 2017

3. Contribution to public funding of the entire mobile ecosystem



- The tax contribution of 1,110 million $ means that **half of the value added directly created by the ecosystem is kept by the government**.
- This includes payments of general taxes across the entire ecosystem, as well as regulatory taxes and fees that are specifically applied to mobile operators (150 m. $) – half of which correspond to the Universal Service Fund levy.
- These contributions do not account for spectrum auction payments – latest auction in 2016 resulted in additional 100 m.$ for the government.

*Excludes regulatory taxes and fees that are not based on mobile operator's revenue

Source: GSMA Intelligence analysis

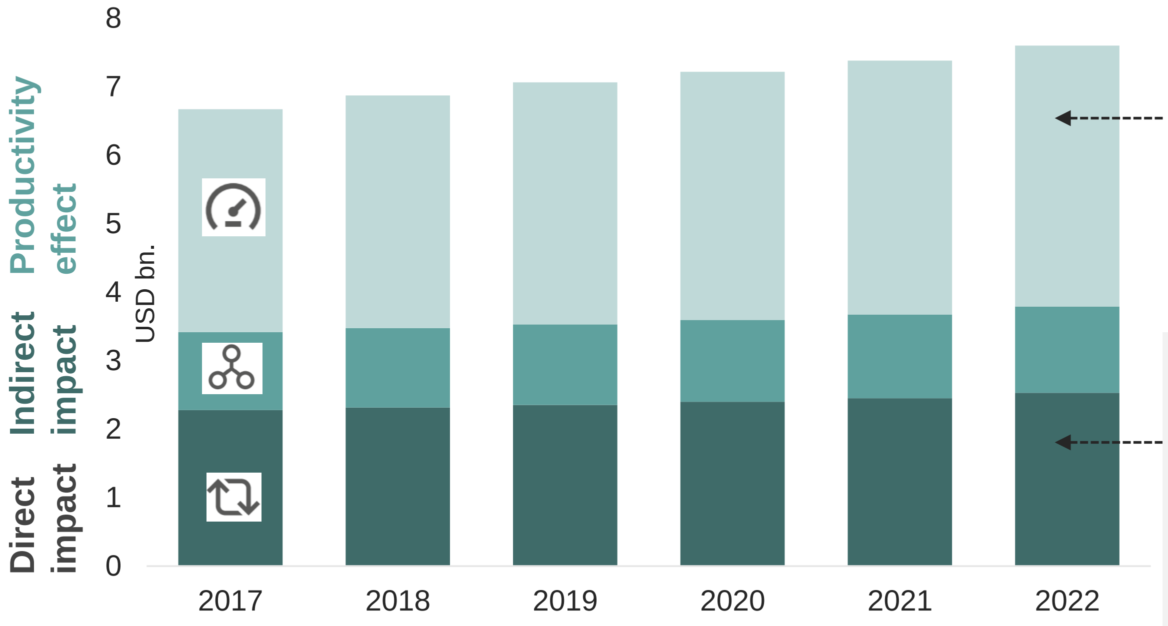
Economic impact of the mobile ecosystem

4. Forecast to 2022 (i)

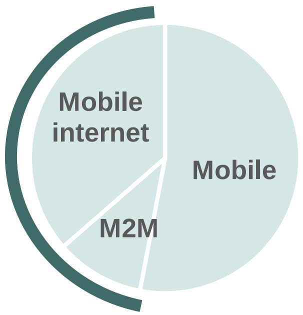
Significant part of the increase in economic impact will be brought about by the increased take up of mobile internet in general, and 4G especially – but also through an expansion of the mobile ecosystem

3.7% GDP in 2017
6.7 $ bn

3.9% GDP in 2022
7.6 $ bn



In 2022, almost half of the productivity impact will be driven by mobile internet and M2M technology



Direct impact increase partly through stronger activity of firms in

- ***Device manufacturing**, following trend of increased assembling activity in the country (Wiko, Samsungo, Bomare Company, among others).*
- ***Content, Apps and Services**, meeting increased usage trends of mobile internet.*

Source: GSMA Intelligence analysis

Economic impact of the mobile ecosystem

4. Forecast to 2022 (ii)

	Total impact	*Direct employment*	*Indirect employment*	*Public funding*
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