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Nokia made over \$1 billion from licensing in 2019, but maybe it could have been more

Nokia is one of the major players in global telecoms licensing and recently announced 2019 royalty income in excess of \$1 billion. But, argue Eric Stasik and David Cohen, perhaps this number should have been higher

In 2018 Galetovic, Haber and Zaretski (building on the [pioneering work of Keith Mallinson](#) at WiseHarbor) produced [an empirical analysis](#) of cumulative royalties on mobile SEP royalties.

By following the money, Galetovic et al estimated a total average royalty yield in 2016 across all mobile phones of 3.3%. Restricted to only smartphones the result was 3.4%.

In terms of royalty revenue per licensor over the period studied, Nokia or Ericsson ranked number two or three and remain among the most important licensors in the mobile phone space.

When, on 5th March 2020, Nokia Corporation [released its annual report for FY 2019](#) revealing revenues from patent licensing of €1.459 billion, we decided it would be interesting to summarise these results and to put the numbers into context.

Steady level of patent filings on new inventions.

A review of Nokia's annual reports over the four-year period from 2016 to 2019 (summarised below) indicates that the Finnish giant is - and has been - filing patents on new inventions at a remarkably consistent rate of about 1,300 new inventions patented every year, even as R&D operating investments have been declining in more recent years.

Table 1 – Summary of Nokia results 2016-2019

(€m)	2016	2017	2018	2019
Net Sales	23,614	23,147	22,563	23,315
R&D operating expenses	4,904	4,916	4,620	4,411
Reported licensing revenues	1,053	1,602	1,501	1,459
Patents filed on new inventions	1,300	1,300	1,300+	1,300+

Source: Nokia Corporation annual reports

Flat licensing revenues

Nokia reports revenues from its patent licensing programmes along with royalty payments received from HMD Global for sales of Nokia branded mobile phones and tablets covering both brand and patent licensing. All Nokia Technologies IPR and licensing net sales are allocated to Finland. The reported licensing revenues shown in Table 1 are thus slightly larger than the actual licensing revenue, but are consistent with [the August 2017 dataset](#) produced by Galetovic and Haber to permit updating.

Nokia's share of the smartphone royalty stack

It is difficult to make a precise calculation comparing Nokia's recognised royalty revenues with the sales of smartphones. Nokia most likely earns meaningful royalty revenues from the sales of competitor's infrastructure equipment and not all licensing revenue is based in a running royalty.

Moreover, running royalties are often paid in quarters subsequent to when sales are realised. Additionally, it is reasonable to assume that a material number of Nokia licences are cross-licences and that in many if not most of those Nokia is a net payee.

However, given the trend toward patent counting in essential patent licensing – even where quality essentiality filters are in place - the explosion in patent filings by companies other than traditional, essential patent net licensors is likely to have led to many arguments by traditional implementers for a lower balance of payments.

Notwithstanding all the preceding caveats, we believe some quick, easy and illuminating engineering estimates can be made.

Galetovic and Haber estimated total mobile phone revenues in 2016 to be \$425 billion. Assuming no increase in the total revenues since 2016 - and an average exchange rate of \$1.1 per Euro for 2019 - Nokia's reported licensing revenue in 2019 (€1.459 billion = \$1.6 billion) represents a percentage royalty on average of about 0.38% per device. This is quite far from Nokia's announced royalty rate for LTE end-user devices of 1.5% (and 2.0% for multimode devices.)

Even considering cross-licensing, bulk discounts and other common commercial considerations, Nokia's reported licensing revenue as compared to the total market seems to us to be less than half of what it might be.

Nokia's balance of payments resulting from cross-licences should have been substantially strengthened since its divestiture of its Devices and Services business in 2014, removing the need to obtain cross-licences for Nokia's own mobile phone business.

Although Nokia remains a leading supplier of mobile infrastructure, increasing competition from Huawei, ZTE and others should further increase its balance of in-bound licensing revenue.

Industry hold-out and the increasingly difficult environment for SEP licensing is certainly a contribution. Moreover, the breathless coverage of Chinese implementers bulk filing and declaration of potentially essential patents has confused commentators, certain regulators, possibly the courts, and definitely the implementers themselves into concluding that Nokia's diminishing share of the total declared essential patent count means that Nokia is due far less than it has traditionally received for its essential patent licensing (see David L Cohen, [IPlytics' Patent Counting Fallacy](#), for a more detailed discussion of this issue).

In recent years Nokia has announced patent licence agreements with Samsung (in 2016 and an extension in 2018), Xiaomi, Apple and Huawei (2017), and Vivi, TCL, Tinno and Wiko (2019). However, it still does not have any licence agreement we are aware of with ZTE.

Despite steadily filing 1,300+ applications for patent on new inventions on an annual basis, and the acquisition Alcatel-Lucent in 2016, the size of Nokia's portfolio decreased from 26,000 patent families in 2016 and is holding steady at around 20,000 patent families now. The expiration of Nokia patents relating to GSM and UMTS, as well as its divestiture of patents in recent years, may have reduced the value of Nokia's portfolio overall. Licensees may well see less value in a licence from Nokia when they are being asked to pay fees to others for patents originating from Nokia. If that is the case, some may see it as a self-inflicted wound.

TAGS

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