EDITED TRANSCRIPT
ARM.L - Q2 2013 ARM Holdings plc Earnings Conference Call

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OVERVIEW:

ARM.L reported 2Q13 total revenues of $264m.

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PRESENTATION

Simon Segars *- ARM Holdings plc - CEO*

Okay. Good morning, everyone. Thanks for joining us today and welcome to ARM's Q2 and H1 2013 results.

Before we start, I'd just like to direct you at the customary cautionary statements, which I assume you're all very familiar with and we'll take that as read.

What I'm going to do today is talk about some of the progress we're making towards our strategic goals. Tim's going to talk through the detail behind the numbers. But let me, before we start, just give you some of the highlights.

So Q2 was a very strong quarter for ARM, driven by a very strong licensing result. We licensed 25 processor licenses, seven Mali licenses, and this is really driven by leaders in the semiconductor industry committing to ARM into their long-range roadmaps. Royalties also grew strongly, 24% year-on-year growth. That's significantly outperforming the industry, which only grew by a couple of percent in the same time period.

What that leads to is total revenues of $264m, and that enables us to continue investing in ARM's roadmap, in hiring people to drive our R&D, whilst at the same time delivering profits and cash and being able to increase our dividend return to our shareholders. So we're very pleased with the way that Q2 has developed.

What I'm going to do now is look at some of the key markets and the progress that we've made, starting by looking at smartphones.

At the beginning of the year, we were forecasting very strong growth for the smartphone market, anticipating about 1b units in additional sales through the year, and it would seem from the industry statistics gathered so far that we're pretty much on track to deliver against that. Smartphones themselves, of course, are not just one type of device. We're seeing a tiering of smartphones. We have premium super-phones, we have mid-range devices and we have low-cost entry-level phones, and you need to look at each of these markets separately when considering the smartphone space.

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At the high end, we've seen in the quarter the first big. LITTLE devices actually on sale and delivering great performance and low power. And recently we've just seen Samsung announce a second device based on big. LITTLE, the 5420, also incorporating Mali-T628 and a six-core configuration. So another device based around big. LITTLE technology.

The mid-range we see as particularly interesting space as there's high growth potential for that market. We see that growing to over 0.5b units out in 2017. And at Computex in June, we launched a family of products specifically targeted at that market. We launched the Cortex-A12, for which we have four licenses now, the Mali-T622 and the Mali-V500, which is a video accelerator. Together, those processors form a very power-efficient processing subsystem which we think is ideally suited for mid-range phones.

At the low end, in entry-level phones we're seeing greater adoption of Cortex-A and Mali, which together are providing high processing performance, giving a great user experience even though the device itself might be less sophisticated than some other products. So, smartphones performing very well.

Now, what we're seeing across the range is an increasing attach rate of Mali. So in the entry level, in the mid-range and the high-end, all, we're seeing devices containing Mali as well. And that's led to very strong unit shipments of our Mali graphics processor through the year. So far, in 2013, unit shipments have already outpaced all of 2012, so we're on for very strong growth through this year.

Now, the smartphone market itself, as I said, is developing in quite interesting ways, and it's easy to think that everybody on the planet has a smartphone. But actually, when you look at global penetration of smartphones, it's actually quite low. This is industry data that we've taken for 2012, and you see in developed regions such as North America and Europe smartphone penetration around 50%, but in other countries, in other regions of the world, much lower.

The portfolio of technology that ARM is producing allows devices to be built at different performance points, different price points, to allow smartphone penetration globally to increase by having the right product for the right economics of a given market.

We're particularly excited by growth in the entry-level phones, the low-cost devices. And although many people say these are a bad thing, actually we see it as a very good thing because it enables many more people, billions of people, to get access to smartphones which they just wouldn't be able to if the industry only produced very high-cost premium phones.

So, smartphone penetration, as I say, across the world quite low. If you look at Russia, Russia's got a population of over 140m people and penetration there is only about 9%, very low. When you look forwards to 2017, just taking Russia as an example, we see smartphone penetration going up to 70%. That's about another 85m people getting access to smartphones. And when you consider that the average monthly income there is about $800, clearly few people are going to spend $600, $700 on a smartphone. Penetration there is only going to increase through the availability of low-cost devices, and we are designing products specifically to address those expanding markets.

If you look at 2017 as a whole, we see growing smartphone usage in all areas of the world, and in very large, populous countries we're seeing significant increase in use of the technology. China and Brazil, we're seeing roughly a doubling of smartphone usage, and in India you're seeing a factor of 10 increase from 4% today to about 40% out in 2017. Even if you factor out increased population in that time period, it's about another 0.5b people using smartphones.

Now, as I said, that wouldn't happen without the availability of low-cost devices, so we wouldn't have access to this additional market without progress in that technology space. And to understand that bit further about what's going on behind it, we need to look at some of the silicon content and the devices themselves.

So here we have that bar graph showing 2017 breakdown of devices from premium phones, mid-range and entry-level compared to today and 2012, and you see significant growth there. When you look at the devices, at the entry level we're expecting phones at below $200, probably significantly below $200, containing multi-core processors, Mali GPUs and built on silicon potentially using our physical IP as well.

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In the mid-range, where the price goes up, anything up to about $400, we would start to see big. LITTLE processors adding GPU Compute, so that the very -- there are numerous algorithms which can benefit from GPU Compute. If you take, for example, taking a photo of a group of people and you want to change, say, the color or the contrast of it, you can do that today. But when you do that using GPU Compute, those algorithms are very well suited for running on a GPU so you can do it more quickly and use less of the phone's battery along the way. So GPU Compute, an important technology, and we'd expect to see that in the mid-range phones.

In the high end, we would expect to see processors based on version 8 of the ARM architecture that adds support for 64 bit. That's going to enable more memory in devices, more sophisticated algorithms to run. Again, GPU Compute probably in a greater core configuration. And across the range, the silicon could be built using ARM's physical IP. So a lot of ARM content, and obviously different ARM content in different devices across the tiers here.

So, when you look at our silicon content, you'll see different application processors, designed specifically for these different market tiers, and different numbers of companionships based on the amount of connectivity, the number of sensors and so on that would be found in the end device. And what that leads to is a different royalty opportunity for ARM in each of these different tiers, but a significant one.

What we've done here is compare against the royalty opportunity of a basic voice-only phone, and you can see we have four times the royalty opportunity there in the entry-level, all the way up to 20 times in the super-phones. But, again, the market wouldn't grow in this way without the availability of these lower-cost devices.

So, when you run those numbers through, we expect to see compound annual growth rates of about 20% for handsets themselves. That leads to a silicon value CAGR of about -- of more than 10%, leading to a royalty CAGR for ARM in this period for handsets -- for smartphones in the 15% to 25% range.

So what we're doing is designing products specifically to target these markets. I mentioned Cortex-A12 and the T622, specifically targeted at mid-range; Cortex-A7, we designed that for entry-level phones, and that's the adoption there has been quite strong. Cortex-A50 series we designed for the higher-end phones. So we're developing a portfolio to address these growing markets as they grow in different ways.

Now, smartphones aren't the only device that's evolved quite a lot over time. When we look at mobile computing, we see a lot of interesting changes in the dynamics of the market. Computing used to be something that you did sat at your desk in front of a keyboard and plugged into the wall. And of course computing now is something you do, or can do, whilst on the move, driven significantly by tablets which really have revolutionized the way that people access the Internet and access technology as a whole. So tablets really are dominant in this mobile computing space.

We've seen lots and lots of designs around ARM processors in tablets. And, again, price points are changing, prices are coming down and low-cost devices are being produced in this sub-$100 category. I bought one myself recently in Fry's in California, $100 tablet; it's very good, great for reading on, for example. And these different tiers, these different prices, are again going to enable access to billions of people across the world.

Again, we're seeing good opportunity for our Mali graphics processor in tablets today. We see about a 25% attach rate of Mali graphics in tablets and we expect that to grow.

Overall, we're expecting our market share in mobile computing, which we categorize as the sum of tablets and netbooks and laptops, to grow to over 50% through this year. And it isn't just about tablets for us. We are starting to see clamshell Form Factor devices based on ARM. And whilst we've talked about it a lot, it's interesting to note that the Samsung Chromebook is still the number one selling laptop on Amazon in the US, and that's been there for over 260 days. It's proving to be a very popular device, based on ARM, great performance, very low power, long battery life.

Now, ARM is more than just about mobile. We spend a lot of our time developing products for mobile devices, and that's given us a lot of expertise in low-power design and low-power is useful across the entire spectrum of embedded processors. And if we look at embedded, we see great progress in the use of ARM technology in this market.

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The Cortex-M series has proven very, very popular amongst companies wanting to produce very low-cost, very low-power microcontrollers. We added nine new licenses of Cortex-M in Q2, taking the total up to around 180. And five of those nine new licenses were with companies who'd never used -- never licensed ARM technology before.

The microcontroller space is very active right now and new companies are coming into the space because there's a vast range of end applications that can benefit from embedded intelligence, anything from washing machines, obviously cars, dishwashers, energy control, embedded in light bulbs. There's just a gazillion, it seems, different end applications for embedded technology. And the chips are so low power, so small, so low cost, that they can be used in many different applications with very little impact to the end price of whatever it's getting designed into.

A particularly interesting area right now is in wearable electronics and even ingestible electronics. Freescale have produced a microcontroller that's about 2mm on a side; it's tiny. And that's being driven by probably the US medical industry looking at embedded chips in something that you swallow for monitoring, data collection, whatever. Interesting application, again driven by very low power, very small die size.

So this space is really ripe for explosive growth. And if we look at our 180 licenses that we have, what we see today is only about 50 are shipping and contributing to royalty, but cumulatively that's added up to 4.7b Cortex-M based chips so far. So the other 130 licenses that we've signed, most of those are being designed into end products right now and we would expect to contribute more to royalty over time. So we see huge potential for growth in the microcontroller space, based on the continued success of the Cortex-M family, which again we're continuing to invest in.

Now, at the other end of the spectrum are servers. And Q2 was a very busy quarter for ARM and our partners' progress towards delivering on this promise of again lowering the power and disrupting the data center. Particularly Calxeda and Applied Micro have been very active in Q2, talking about the design wins they've had, and that's great to see the progress there.

We also saw AMD announce two products, their Seattle roadmap, which is an 8-core and a 16-core Cortex-A57 based devices, two chips there. And they are very bullish about the prospect for ARM in the data center. This is a quote from Andrew Feldman, who's General Manager over at AMD, a long history in developing servers, knows what he's talking about, and he's seeing great prospects there for the products that they've developed.

Now, we get asked a lot about progress on software for servers. A lot of the infrastructure, a lot of the software that's running on the data centers right now is based on open source, and that's obviously contributed to by many, many different companies. And it's been great to see Oracle just recently announce their support of Java SE for both 32- and 64-bit ARM architectures, specifically targeting enterprise and in fact embedded as well. So, great progress on both the hardware side and the software side in servers.

Then, connecting servers to sensors to smartphones to tablets is billions of dollars' worth of networking equipment, and we've seen strong design wins over the last little period. So we're anticipating a lot of the next generation of network infrastructure to be based on low-power ARM technology. We've had our first royalties in Q2 from base stations. And we've seen LSI, who've been very active in this space, with WinSockets at two of the three largest base station vendors in the world based on their Cortex-A15 devices. Again, software is key.

And Linaro, which is an activity we set up to create a community around developing Linux infrastructure, Linux software for ARM, Linaro has formed a special interest group for networking called LNG, Linaro Networking Group. And in the quarter we saw both Cisco and Nokia Siemens Network join Linaro Networking Group, and what that's going to do is provide the key software building blocks but done in a very industry-efficient way. No one company has got to foot the bill for all of this. It's shared amongst everyone and the results are shared amongst everyone. So, a great partnership way of solving the problem of software migration.

Networking we see as a big opportunity. Looking out at 2017 again, we see a Chip TAM of 700m devices. The revenue implications of that are a $17b silicon TAM. And we would expect to win about a 20% to 30% market share out in that timeframe. So this is a big silicon market and we do expect growth there, as these design wins start to come to fruition and the royalties start to flow from that.

Now, all of the markets I've been talking about benefit from high performance and low power. And all the emphasis that ARM has had in the last 22, nearly 23 years now on mobile and low power is paying off and enabling us to target all of these different markets. Everything can benefit from

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lower power, smaller die size and lower cost. So that heritage in mobile has given us a lot of expertise. And when we look at how we compare, we believe that we compare very well. Obviously, with the size of these markets there is competition.

So when you look at how we stack up against some of our competitors, taking different markets in turn, I think we're in a very strong position. If you look at entry-level phones which today are being based -- designed around Cortex-A57, really Intel don't have a product that's suitable for that market. Clover Trail Plus is the smallest thing they have, but is enormous in comparison to Cortex-A57. Cortex -- sorry, Cortex-A7.

Cortex-A7 delivers roughly the same performance but at considerably less power, and crucially in a really small die size. And the benefit of that die size is that everything else that you need to put into effectively a single-chip application processor with modem can be integrated onto one device at low cost. So the modem, the connectivity, the GPU, the memory, can all be integrated onto one SoC. That, built on a foundry process, can sell for as low as $5 and our customers are doing that today. These devices are shipping today.

If we look in the mid-range, which again devices are shipping today, based on ARM, based on Cortex-A9, Cortex-A9 outperforms Clover Trail Plus. Again, it's lower power, it's considerably smaller, so again it can built into an SoC with everything else you need and built on a foundry process and sell for around about $10. Very low cost, very low power, great performance, shipping now.

In the premium end, as I mentioned right at the beginning, we're seeing big. LITTLE devices shipping now. That adds significant performance in comparison to Clover Trail Plus, but at the same time allows power to be lower because of the big. LITTLE architecture. And again, relative size wise, the cluster configuration is still very small. So when you build that on a foundry process, you can build the whole SoC and sell it for $15. So we can deliver the performance, we have very low power, and we can hit these very low price points that are required for these large-volume markets.

And the same extends up to servers. On the server side, it's all about total cost of ownership, how much it costs you to acquire the equipment in the first place and how much it costs you to run it based on the electricity the servers themselves are going to use and all the air conditioning that you need to power your data center.

Today, we have 32-bit ARM processors based on version 7 of our architecture, shipping today in ScaleOut server applications that are lowering power, lowering that total cost of ownership. Again, built on a foundry process, our licensees can sell chips at this sub-$100 point, which if you're building servers is a very low cost.

So, all of those examples are based on processors which have been designed and are shipping today. We of course have a next generation of technology coming through. Talked about Cortex-A12. Last year we announced the Cortex-A50 series, which has Cortex-A57, Cortex-A53, has a big. LITTLE 64-bit configuration. As that technology delivers into these markets, again, we'll see more performance taking that to the next level, whilst at the same time maintaining the focus on low power, low cost so our partners can produce these very aggressively priced SoCs to address these very large markets.

So, before I hand over to Tim, then, I'll just -- let me just summarize the quarter. It's been a very successful quarter for us, characterized by major semiconductor companies making long-term commitments to ARM technology. That licensing has delivered great financial results, allowing us to continue to invest in our R&D whilst returning cash to our shareholders and increasing our dividend.

So, with that, I'm going to hand over to Tim.

Tim Score - *ARM Holdings plc - CFO*

Thanks, Simon. Morning, everyone.

Quick run through the numbers, a little bit of color, talk a little bit about guidance. Simon has already gone through the headlines, so I won't dwell on them in too much detail, but 24% overall revenue growth in the quarter. The very strong licensing that we've seen in the last three plus years continues, up 32%, lots of new licensees, lots of existing licensees either upgrading in their vertical or broadening their use of ARM into other end markets.

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Royalties up 24%. We were up 33% in Q1, but you'll probably recall that we called that probably a slightly inflated level based on the inventory correction a year ago. So, a 24% and 22% outperformance versus the industry, at the top end of our normal experience. And that's driven normalized PBT growth and earnings growth that you can see there, 30% and 37%, respectively.

And encouragingly, perhaps what you'd expect with the margin expansion that we've seen, GBP96m in Q2. That's the highest net cash generation we've seen in an individual quarter, and now just over GBP600m of net cash at the end of June. And we've announced an increase in the interim dividend this morning of 26%.

Looking a bit more at licensing and royalty, you will remember, no doubt, that my guidance for licensing in April was $75m, plus or minus. So, at $88m, we're at the top end of that. It's probably an understatement. Very positive, 25 licenses. As you've heard us say before, we typically build this installed license base at about 100 licenses a year, completely consistent.

For the second quarter running, the take or the contribution from order backlog into the licensed revenue at the top end of the normal range, which is typically 40% to 60%, at 60%, so quite a high drawdown from backlog given the recognition of engineering milestones. But as you can see at the bottom there, the backlog in itself still up more than 10% sequentially, so obviously a very strong bookings quarter which has more than replenished the backlog, notwithstanding a 60% contribution into revenue this quarter.

Physical IP licensing also strong, up 23% year on year and five POP IP licenses signed, which again encouraging for future contribution from physical IP royalties.

And of course the importance of all this licensing activity and the accelerated build of the installed base is what it means for our royalties going forward. And you can see from the chart at the bottom right, which you've seen before, that this licensing activity, 450 licenses in the last 3.5 years, barely moving the dial really on royalties. So there's a lot of royalties in the can yet to be recognized.

In this particular quarter, $119m, as I say, up 24% year on year, 22% outperformance in the quarter, mostly market share gains. Cortex-A is now 17% of total shipments versus 8% a year ago, and Simon talked about the accelerating trajectory of Mali shipments also contributing.

In the bottom right you can see the historical outperformance. We've often talked in these meetings about a 10% to 15% outperformance. And I think, as was noted in the last analyst presentation by one of the analysts, that that has actually expanded in recent times to be really at the 15% to 20% end and slightly north, as we can see this quarter, so encouraging trajectory. Similarly in physical IP, smaller numbers but a good trend, up 17% and headline level and up 20% in the quarter excluding all the catch-up royalties from this year and last, so good trends.

Looking at costs and tax, just to help with the models, normalized OpEx in Q2 GBP78m, that's pretty much in line with guidance last time and consensus, as you'd expect. Expected to grow a little bit in Q3. We continue in investment mode. We're investing in R&D. We're investing in the back office infrastructure of the Company, to make sure that this growth opportunity is supported by a resilient infrastructure. So, in GBP79m, GBP81m, broadly in line with currently consensus for Q3, I think was about GBP80m. And you can see that in the first half of the year operating margin is up about 4 points year on year over the six months.

Most of you will have noticed, I'm sure, from the release that this morning there is a fairly significant cost, litigation-related cost, sitting in the IFRS numbers. Just a little bit of color on that. Most of you will be aware of patent trolls, non-practicing entities building portfolios of patents, asserting them around the industry. This is actually in the normal course of business; this is going on kind of all the time. And ARM is rarely, and not in this case, party to the litigation but does provide indemnities under certain conditions to our licensees.

Usually these things close by settlement or cross-licensing, and typically the contribution from ARM and the impact on ARM is really under the hood and goes through our numbers and you wouldn't really notice it because it's from time to time small single-digit millions ongoing cost of running an IP business and protecting your technology and protecting your ecosystem. In this particular situation, where patents were asserted against a number of our licensees towards the end of the second quarter, all of those licensees, some together, some individually, settled.

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And ARM had a contribution in total of GBP42m, which was a combination of some indemnity payments to certain licensees and us buying a license to the whole patent portfolio of this non-practicing entity, which protects the ARM ecosystem. And this matter is now closed. So that's a full and final settlement.

As I say, these things come up from time to time. I think about five years ago we had a case related to Nazomi that stuck its head above the reporting parapet, and about five years before that we had one with an outfit called Pico Turbo. So these will happen from time to time. We don't see anything in view of this magnitude, but we should all be aware that the patent troll exists and it's something that we have to manage on an ongoing basis with our partners and with our ecosystem.

No change to tax, really. You will remember the Q1 rate, just under 17%, was artificially low because we recognized the benefit of the US R&D tax credit in Q1, the 2012 tax credit, because the legislation was enacted in January and not as normal in December. This quarter more normal, just over 20%, but still guiding the full-year tax to be just under 20%, which is pretty much where the analyst community are on tax rate.

So, in summary, looking into the second half, the backlog's obviously in good shape, a record level. The opportunity pipeline for licensing, which obviously we have fairly good visibility into on a three- to six-month basis, is looking healthy, based on our product portfolio and the new markets that, as Simon explained, our licensees are taking us into. So that looks good.

License revenue expectations, 25 licenses a quarter, lumpy business, but the baseline goes up based on this backlog. So you're probably not that surprised to hear me say that $75m plus or minus moves to $80m plus or minus as, I think, a realistic base. Could it start with a 7? Yes. Could it be north of $80m? Yes. But this looks like a sensible way, because this is trying to look forward, in a way, multiple quarters. I'm not just trying to forecast one quarter. But that looks to be the right base, I think, to be thinking of at this stage.

Looking into royalties, obviously some mixed messages going on around the industry for the second half. Our data suggests that in Q2, which is the relevant period for our Q3 royalties, there was a small sequential increase in overall industry revenues, which is obviously the context for our Q3 royalties. And as I said before, OpEx in the range GBP79m, GBP81m, just growing up, continuing to increase slightly as we keep investing in our people.

So, full year, we've had a strong first half and we expect the full-year revenues to be at least in line with the current expectations, which are just under $1.08b.

And I think, with that, we'll open it to the floor. Thank you.

QUESTIONS AND ANSWERS

Simon Segars - *ARM Holdings plc - CEO*

Why don't we start down the front?

Didier Scemama - *BofA Merrill Lynch - Analyst*

Thanks. Didier Scemama from Merrill Lynch. Three quick questions. First, on the outlook for the second half, clearly, Tim, you are guiding about $80m plus or minus, I guess, although you were $88m in Q2 on licensing. Also, for the full year, for PD royalties I think the street is at $520m. So do you think that it's appropriate to have still $80m for the full year -- $80m per quarter in the second half, or can that be slightly better than that?

And on the royalty front, obviously we see some mixed messages from the premium smartphone market, etc., same time very strong growth in the low-priced smartphone market. So how do you feel about those numbers? Effectively, would you expect the $1,080m number to move up? I guess that's my question.

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And then the second question is on the benchmarks. You've given us some interesting data there of A7, A9, big. LITTLE versus Clover Trail Plus, but I guess what people are wondering is where you think you will be versus Silvermont.

And then my final question is on the announcement made by Samsung yesterday of the Exynos 5420 using your graphic solution, which I think is a big surprise to everybody since they launched the first big. LITTLE chip with Imagination only less than six months ago. So I'm just trying to understand why you think Samsung has done that. What are the benefits of switching so quickly? Thank you.

Tim Score *- ARM Holdings plc - CFO*

Yes. As I said, current consensus, coming to the result, is just under $1,080m. You know as well as I do that if I say the licensing is going to be $80m plus or minus, consensus is going to be a little bit north of $80m in both quarters. And clearly we feel comfortable with that.

I think the royalty outlook is much harder to call. The consensus is currently plus $12m, plus $13m in Q3 and plus $17m in Q4, reasonably chunky uplifts. In the last two years, our Q4 royalties have been up $17m in each quarter. So, not unprecedented but clearly we'll have to see whether some of this noise around actually manifests itself in lower sales.

So what I would expect to happen is the overall consensus to increase broadly by our outperformance on Q2, maybe with some rebalancing between licensing and royalty for Q3 and Q4. That's kind of what I would expect.

Simon Segars *- ARM Holdings plc - CEO*

So, on your question about Silvermont, you've got to remember there is actually very little data actually out there to say what Silvermont is going to do. From what we've heard, from what we've seen, from the analysis we've done, we're pretty confident that today's solutions around big. LITTLE are going to continue to give ARM a performance and a power efficiency lead. We'll have to see when it comes -- what happens when it comes out. And of course I think the last few weeks have shown that you have to be very cautious about how much benchmark data you use and where it's come from and how it's been created, so big health warning around benchmarks.

What ultimately matters at the end of the day is the user experience, how good is the phone going to sell, is the combination of lots of parts in there. We think our technology is in good shape.

Which kind of leads quite nicely onto the question about Samsung's choice of Mali in the 5420. You said that comes as a surprise. That hasn't really come as much of a surprise to us and I actually thought we'd been signaling that for a while. Obviously you need to ask them about specific reasons for why they choose different devices. They produce a lot of silicon in the year. They're constantly updating their devices.

The graphics processors don't have as much stickiness as the CPUs, because of the way the code's written and you know all about that. So it is a relatively easy thing to switch from one architecture to another and back again, of course. And so the onus is on us to make sure we've got the best technology available to our customers at the time at which they're going to make that decision, and it appears for this next generation device from Samsung we did.

Sumant Wahi *- Redburn - Analyst*

Hi. It's Sumant from Redburn. Thanks very much for taking the question. Essentially, I have three questions. One is to do with the license beat essentially in the Q2. I was just wondering whether that was driven by licensing from the Greater China customer base. And if that is so, is that a growing trend or do we expect that to happen going further as well?

The second one is to do with the PIPD division. I think congratulations that for the first time you've hit profitability on that one. I'm just wondering if there is a operating profit margin guidance or something of that sort. Looking forward, what should we consider should be the sustainable margins coming out of this division?

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And finally, the third part is on the smartphone chip growth. Maybe I'm completely mistaken on this but I was wondering, is there a slowdown you're expecting in overall chip growth? I remember 30% CAGR being talked about, and if I look through the slide it's now 20% on ARM's addressable market chip growth. Maybe I'm mistaken on this, but just a bit of color on that would be really helpful.

Tim Score - *ARM Holdings plc - CFO*

No, the licensing beat wasn't really China. We drew out China in the release because we had our first subscription license there. But as you know, subscription license is recognized ratably over time, so that doesn't have much impact on short-term revenue. But having said that, China has become, over the last few years, an increasingly important part of our overall licensing activity.

No, the general beat, it was a combination of the turns licenses yielding revenue in the quarter and obviously reasonably material drawdowns based on engineering milestones being hit on the newer technology releasing revenue into the P&L, so kind of business as usual. But 60% contribution from backlog is at the upper end and 25 licenses is probably, on average, slightly at the upper end as well.

Simon Segars - *ARM Holdings plc - CEO*

Question on PIPD. So there's two reasons why we have a physical IP business. One is to drive revenues and profitability in its own right and the other is to enable us strategically to create better implementations of ARM's CPUs. The two are both important, although we are more focused on the strategic benefits of having the business than driving it for profit in its own right, because obviously that would lead you to drive the business in very different directions.

So what we've seen is continued uptake of our POP IP. That's the product line we've created specifically to enable our licensees to get better, higher performance, lower power implementations of their ARM CPUs. The licensing from that has been a great success. We've got nearly 50 licensees now or, sorry, licenses of the POPs. And we're starting to see the impact of that and design wins generally for advanced technology flowing through to the royalties.

So we do want to drive this as a profitable business, but at the same time the real focus is on the strategic benefits there. So we don't have any formal guidance for how we see that growing, but as the design wins continue I would hope that that would go in a positive direction.

And your last question was about smartphone growth. I don't think we've changed the numbers there.

Gareth.

Gareth Jenkins - *UBS - Analyst*

Thanks. One follow-up on the drivers of licenses. I just wondered if you could talk about the products driving it. Is it 64-bit, is it V500? What's the key driver of that?

Secondly, I just wondered if you could talk to the royalty rates that you expect for V500 into -- as you ramp into next year, with 4K coming on tablets potentially.

And then finally, just on the attach rates, you helpfully gave the attach rates for Mali on tablets. I just wondered if you could give a sense in the lower-end smartphone market what your attach rates for Mali are. Are they higher or lower than the broad range of smartphones? Thank you.

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Simon Segars - *ARM Holdings plc - CEO*

In terms of the technologies driving the licensing, I think it was pretty broad, really. We're seeing Cortex-A, R and M licensing and a bit of subscription as well and Mali, so it's been fairly across the board there and there's not one area that particularly stands out.

Your second question I've got to say I've forgot, because there were three in there. The royalties there, we expect to see some incremental royalty on top of the royalty that we get for Mali. You might think of that as another percent-ish on the overall royalty.

And your third question was?

Gareth Jenkins - *UBS - Analyst*

Was on attach rates for Mali in smartphones.

Simon Segars - *ARM Holdings plc - CEO*

Okay. So, yes, is the attach rate higher in the lower end than others. I think bit early to say on that. I think right now fairly consistent across the entire tiers of the smartphone market.

Sandeep.

Sandeep Deshpande - *JPMorgan - Analyst*

Just one question again on the Silvermont. The supply chain seems to be indicating at this point that Intel is being very aggressive on the pricing of their processors in the fourth quarter, whenever they're going to come. I guess some point in the fourth quarter. Could you comment on -- you've talked about these three tiers. I guess Intel is initially going to play in the tablet market rather than in the smartphone market, given the lack of an integrated product. Where your ASP is at this point, will you be impacted by a very, very aggressive ASP from Intel associated with their initial Silvermont processors?

Simon Segars - *ARM Holdings plc - CEO*

Well, hard to predict there. Obviously I don't know what Intel is going to do in terms of pricing and that price competition is more of an issue for our licensees than it is for us directly.

I think in terms of uptake of those products or not, it's going to come down to the handset makers or the tablet makers looking at what they can get from Intel, looking at what they can get from the ARM partnership and weighing up multiple factors. Software compatibility, performance, power, cost, all of this is going to come into play, but particularly that software ecosystem and the amount of applications written for and optimized around ARM I think is going to be a big factor in our favor for a long time to come, but we'll see how that pans out.

Sandeep Deshpande - *JPMorgan - Analyst*

What is your ASP at this point? A couple of quarters ago, I remember it being about $12.5 or $13. Where is it today?

Simon Segars - *ARM Holdings plc - CEO*

For a tablet?

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Sandeep Deshpande - *JPMorgan - Analyst*

For an application processor using Cortex-A9 or Cortex-A15, whichever, where all these (multiple speakers).

Simon Segars - *ARM Holdings plc - CEO*

I had in the chart there some different price points for $5, $10, $15 for the different tiers. Beyond that, it's really that pricing. That's a kind of broad generalization of the pricing that we see in those tiers and exactly the spot price is what our customers do.

Francois.

Francois Meunier - *Morgan Stanley - Analyst*

Thank you. It's Francois from Morgan Stanley. I've got a few questions. So maybe the first one is I'm trying to understand the guidance. I'm trying to read between the lines. So, as Didier was saying, you feel more confident about licensing and maybe you think that royalties should be a bit lower. Is that because you see some inventory correction in the high end of the smartphone market, or is it because you think that some people in the sell side got ahead of themselves in terms of numbers and maybe the 2014 royalties are a bit too high as well? That's my first question.

Tim Score - *ARM Holdings plc - CFO*

I think that's an extrapolation of -- all we're saying right now is that if you look at the consensus of royalties in the second half, it's plus $13m in Q3 and plus $17m in Q4. Those are seasonal shapes that we've seen before. There is a mix -- there are some mixed messages around the industry. It's hard to put your hand up and say that's in the bag right now, because it isn't. But we're not making any comment on the longer-term royalty trajectories. We're not making any comment on 2014 royalties.

As you can see from the charts, our performance in royalties versus the industry as a whole has been on an improving trend and the gap has been expanding. We see nothing fundamental that changes that dynamic. We're just pointing to the fact that the sequential increases that are in the market for the second half, which are, as I say, pretty close to normal seasonality, are not in the bag as of July 24.

Francois Meunier - *Morgan Stanley - Analyst*

Thank you. The second question is about the licensing, which is, as you explained at the beginning, moving more and more to Asia and maybe a tiny bit to Mainland China. So I think for us it's a bit difficult because I grew up with TI, Qualcomm and these type of companies and now it's maybe names that I'm not as familiar with today. So of course we know about Mediatek, Spectrum; maybe a new build one is RDA. So what I'd like to understand is, as we are moving from western chip players to Asian type players, how do you see this having an impact on the pricing, because I think we all believe that if you have more customers in Asia then it could have more pricing pressure down the road for all the industry?

Simon Segars - *ARM Holdings plc - CEO*

I think there's been a gradual shift in our business towards Asia generally over about the last decade. This is not a new phenomena. It's been going on for a while. You'll know that in that time our license revenue on a quarterly basis has gone up. So these two things, if you correlate them, would not suggest that we're under increasing price pressure because of that shift to Asian markets.

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Francois Meunier - *Morgan Stanley - Analyst*

Okay. Another question would be, I'm sorry, about Intel and I hope I'm not [bringing you] too much on this. But I've been very surprised myself to see the new MacBook Air from Intel which is not even Silvermont. It's a big chip; it's Haswell. Of course it's much more expensive than yours, but still giving a very good battery life for the MacBook Air, so it's 13 hours. If you basically compare on the same battery side basis as the iPad, basically it's got 11 hours browsing time versus nine hours for the iPad. I'm really surprised because my belief was like, wow, ARM is so much better, Intel can't catch up. So where do you think the progress has been made and where do you think you can basically leapfrog them again going forward?

Simon Segars - *ARM Holdings plc - CEO*

Well, obviously the chip that's in a MacBook Air is a very different chip to the kind that you'd put in a phone or in a tablet, and it's built on a different kind of manufacturing process to that that you'd use for a phone or a tablet. MacBook Air, great product. I've got to say my own experience of using one isn't quite what the claimed battery life statistics are, but it is still very good at the end of the day.

I think the technologies that we've been delivering on big.LITTLE, very energy-efficient graphics, now with video accelerators as well, and the approach we're taking to system design, the approach our partners take to SoC level power control is going to enable ARM based solutions that ideally target tablets and phones.

Gentleman behind you.

Francois Meunier - *Morgan Stanley - Analyst*

Thank you.

Jerome Ramel - *Exane BNP Paribas - Analyst*

Jerome Ramel, Exane BNP Paribas. When do you -- can you update us on big. LITTLE and Cortex-A15 adoption? Beyond Samsung and potentially Mediatek at the end of this year, when do you expect meaningful unit shipments of Cortex-A15, big. LITTLE?

Simon Segars - *ARM Holdings plc - CEO*

Well, there are a number of customers who have licensed Cortex-A15 and Cortex-A7 big. LITTLE combination. Exactly when they're going to ship is hard to say, but I would expect to see that volumes will grow through next year.

Gentleman next to you.

Nick James - *Numis - Analyst*

Thanks. Morning. It's Nick James from Numis. A couple of questions. One was on the benchmarks. You've given us a health warning on benchmarks and then you've drawn attention to your own benchmarks. And I guess I'm a little bit surprised you've used big. LITTLE there. There's one implementation of big. LITTLE on the market, which there have been reported overheating issues; there have been criticisms of the size of the chip. So if you could just address those in the context of the benchmarks that you've set out there?

And then the second question was on the exceptional from patent litigation and -- we had a big investment last year which was basically stopping there being a patent troll for the mixed patents to protect ARM. We've got this unexpected thing come through in Q2. I know you don't foresee more of these, but I don't know that you foresaw this one. So what is the assurance that we're not going to see more and more of this type of big patent mitigation type cash outflows?

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Simon Segars - *ARM Holdings plc - CEO*

So, in terms of big. LITTLE adoption, as I said, there's a number of customers who are designing products there. So, yes, you do have to take a health warning with benchmarks. You do have to look at what is being compared. And obviously, what we've shown on the chart there is a synthesis of what we think is important when looking at comparing one chip against another, and there's a lot of data behind that we haven't bored you with here today.

In terms of big. LITTLE implementations, what we provide to our customers is a very flexible set of components that can be built in, big clusters, smaller clusters, mix and match. And depending on the level of performance that one of our licensees wants to produce, they can use that technology in however they see fit. So you're going to get some larger implementations, you're going to get some smaller implementations, but it's all about what we provide is flexibility and choice in how our customers put their chip together and how they best think they're going to target the market. That's what Samsung have done.

Nick James - *Numis - Analyst*

So those benchmarks reflect shipping ARM chips, because that's what you said, right?

Simon Segars - *ARM Holdings plc - CEO*

Yes.

Nick James - *Numis - Analyst*

So which --?

Simon Segars - *ARM Holdings plc - CEO*

They're real chips shipping; they're real phones. That's just the Samsung Galaxy S4 because that's a real benchmark. There's a slide on -- in the appendix that details all the benchmarking data.

Nick James - *Numis - Analyst*

Thank you.

Tim Score - *ARM Holdings plc - CFO*

Yes. On patents, as I said in the remarks there, the existence of non-practicing entities and patent trolls and the reality that sometimes in this space operating companies fail and investors want to monetize what's left in the former patents, this is the reality of the business. It's been going on for a long time. And clearly our long-term interest is to protect ARM and the ARM ecosystem from the disruption.

Irrespective of the merit of these claims, regarding infringement or not, they require time and money to deal with. They usually end up, as I say, in settlements that you don't notice, because the numbers are so small. But from time to time you will get a patent portfolio that requires more to close down. As I say, this is the first one that we've seen that's material to ARM to draw out in this way for many years. And typically, when these things do emerge, you get quite a long sight on them because actually being a patent troll is not all easy money. It takes a long time to get to money, and so usually we have good visibility if there's anything in the pipeline.

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So when we say we can't see anything material in view, that's based on what we can see. Now, something can emerge and it could end up in a quick settlement that the ARM ecosystem, the ARM partners and ARM consider to be in the best interests of our business and for those of us that are public, our shareholders. So I can't guarantee that the landscape is clean, but I'm not expecting to be talking about this type of thing in the foreseeable future.

Nick James - *Numis - Analyst*

Can I just follow up on one of the other exceptional charges for Linaro, which I think was GBP7m in this quarter; it was GBP7m last year. I understand it's a not-for-profit organization, but it's not for profit, i.e. funded by ARM. So why isn't this an expense of the ARM business, given it seems to be ongoing?

Tim Score - *ARM Holdings plc - CFO*

Well, it is an expense of the ARM business, but the reason we draw it out separately is because it only occurs every two years. So last time it was two years ago, in fact, not one year ago. So every two years, based on the current membership and the current, if you like, price list, ARM will be spending GBP7m over two years. Now, given that that gets paid in one lump and recognized in one lump, it is obviously a cost of ours that's charged to the P&L. But we draw it out separately because it doesn't appear in all the other quarters, so we'd sit here explaining why next quarter it wasn't there. So it's just easier to have it transparent.

Nick James - *Numis - Analyst*

Thank you.

Simon Segars - *ARM Holdings plc - CEO*

Simon.

Simon Schafer - *Goldman - Analyst*

Thanks so much. Simon Schafer, Goldman. I just wanted to ask about slide 10, which is about your growth in embedded computing. Structurally, how big is this opportunity for you in terms of machine-to-machine? Most of us have heard Ericsson and a lot of telco infrastructure guys talking about this opportunity more broadly. Whether it's 30b, 50b, I guess no-one really knows, but it's certainly a big opportunity. So, structurally, given that there's still 130 licensees, I think you called out, that will start to ship, what's the structural run rate of growth in this market?

And then, more importantly, going forward, is that still going to be a very low price point, or eventually is there a chance that these guys require higher-value technology from you and your partners?

Simon Segars - *ARM Holdings plc - CEO*

So, in terms of how -- in terms of that market size, as you say, it's billions, tens of billions. Exactly how big, a bit hard to say. We can think up new applications for the Internet of Things all day long, and hopefully they're going to come to fruition.

I think, initially, you're going to see quite closed systems where some data is collected, it's processed. Eventually, I would expect you're going to see much more open systems, where data collected from different places can be made accessible to different people to process in different ways. And I think that's where this starts to become very interesting.

THOMSON REUTERS

I think those devices, the end node where the sensor is, is going to be a very low-cost device forever. In fact, I think the tens of billions of units relies on it being a very, very low-cost device. What that's going to do, though, is create an awful lot of data that's going to need aggregating, maybe processing locally along the way, and then up into the cloud. So I think it's going to drive local aggregation points, I think it's going to drive network infrastructure, it's going to drive the expansion of the cloud, which are all, of course, higher-cost ASP devices.

So that's how I think this is going to pan out. Of course, we are crystal ball gazing here slightly, but when you look at the kind of applications people are already starting to build, it's not a huge leap of faith to see some of this coming together.

That gentleman next to you, next to Simon.

Achal Sultania - *Credit Suisse - Analyst*

Achal Sultania from Credit Suisse. Just to follow up on the Mali business, obviously we've seen very strong volume growth. I'm just trying to understand what part of that growth has come from the smartphone market and what part is coming from the tablet market, and also just trying to get understanding of obviously we're seeing higher-core GPUs being implemented in some of the, for example, Exynos chip. What does that mean for your royalty attach rates for Mali specifically going forward? Thank you.

Simon Segars - *ARM Holdings plc - CEO*

So, in terms of growth, Mali has pretty good market share in smartphones, in tablets. We're in about half of all Android tablets. We're in, I believe, about 20% of Android smartphones and about 70% of digital TVs. These markets all have different growth trajectories, but we have a pretty good established market share there.

And, I'm sorry, the second half of your question was?

Achal Sultania - *Credit Suisse - Analyst*

It's about the implementation of higher-core graphics in your GPU. What does that mean, actually, that move towards higher-core GPUs? What does that mean for your royalty attach rates from Mali specifically?

Simon Segars - *ARM Holdings plc - CEO*

Okay. So, in terms of the royalty rate, well, in terms of the royalty from those chips, graphics cores tend to be fairly large in comparison with CPUs. We design ours to be as small as possible, but they're still -- graphics processing does take a lot of silicon area. So if you put a large number of cores down, the silicon device tends to get larger and therefore the silicone die costs more and so that would drive higher royalties into ARM.

Achal Sultania - *Credit Suisse - Analyst*

Does that mean that the royalty rate -- there's a potential for royalty rates to increase?

Simon Segars - *ARM Holdings plc - CEO*

There is a potential for royalty rate to increase with more use of cores, yes.

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Achal Sultania - *Credit Suisse - Analyst*

In percentage terms?

Simon Segars - *ARM Holdings plc - CEO*

In percentage terms, yes.

So, we're going to have to wrap up fairly shortly, so maybe we can make this the last question. I think we'll take one more question, then happy to pick up some --

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Janardan Menon - *Liberum Capital - Analyst*

It's Janardan Menon from Liberum Capital. A few short questions. One is, going to your licensing trajectory, you've always said that licensing is a precursor of royalties to come, and historically it has been true. But today, given that you're getting so many licenses being signed in markets like China by a large number of new entrants all trying to get into the same market or similar markets, which is tablets and smartphones to a large extent and also some of the affiliated markets, is that really true? Because they're all going to chase the same market and it's just a more and more fragmenting market at the end of the day, so would not necessarily change the overall royalty number. In fact, it may add to price pressure on the end device and bring it down a little bit.

Second question is on the benchmarking once again, which is you've benchmarked big. LITTLE with Clover Trail Plus; I was just wondering how does Cortex-A15 stack up with Clover Trail Plus on its own. And would you foresee that pretty much all your implementations in due course of time on the Cortex-A15 and the Cortex-A57 would be big. LITTLE implementations, because that is what is competitive with Intel chips at the end of the day from a power consumption point of view?

And the last question is the industry is quite dependent on Qualcomm for LTE modems and increasingly so they are the de facto supplier. To what extent do you see the fact that they want an alternative and Intel provides that alternative, because they are one of the leading suppliers of 3G modems today, especially to Samsung and other players, would that edge market share towards them just because someone like Samsung wants the LTE modem from someone apart from Qualcomm then Intel is the best alternative?

Tim Score - *ARM Holdings plc - CFO*

I don't expect actually to have a material difference in the conversion of China licensees to royalty from the rest of the field, really. As Simon said, we have been licensing companies in China now for a long time, and actually a number of the leading players are now reasonably significant contributors to royalty.

By the same token, there are one or two who don't make it or get bought or disappear in the same way as -- and when we show our charts of number of licensees and that, remember those are licensees who are still in the game. They're not licensees that we've never licensed. These are licensees who are expected to generate royalties. Okay? And our experience so far in China is that the conversion rate has been pretty good. And as I say, we've now got a number of significant contributors to royalty from China.

Simon Segars - *ARM Holdings plc - CEO*

So, your question on big. LITTLE and Cortex-A15, when we're in the -- when we're looking at the performance graph of those benchmarks, that is A15 powered up. I would expect to see devices which just use A15 and don't use the big. LITTLE combination. There are going to be some applications that don't need to either switch like that or don't have the benefits of varying work rates. The thing about phones and tablets is sometimes you need a lot of performance, sometimes you don't.

There are other applications like networking, for example, where it's about constant throughput. You don't have that variability. So big. LITTLE doesn't help you there. Which is why we've designed our processors, all our processors, with power efficiency in mind. It's just that there are degrees. So I think A15 stacks up well on its own and I think it would be used on its own, independent of big. LITTLE.

Your last question was about LTE. I think generally people building things or anyone wants choice of suppliers, so more people providing LTE is not a bad thing. Intel's solution is actually -- does actually have ARM technology in it, so that's certainly not the end of the world for us if they do start to ship some volume.

Okay. Well, I think we'd better wrap it up there and thank you all for joining us today.