1Q 2017 Investor Conference

May 10th , 2017

IPR Notice

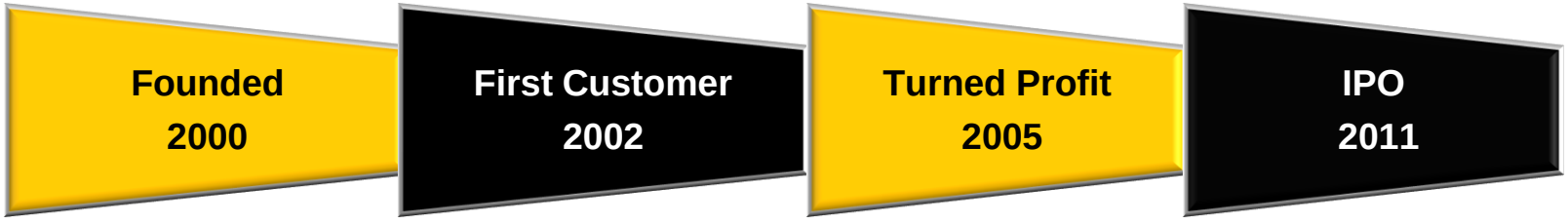
Cautionary Statement

This presentation contains forward-looking statements, which are subject to risk factors associated with semiconductor and intellectual property business. It is believed that the expectations reflected in these statements are reasonable. But they may be affected by a variety of variables, many of which are beyond our control. These variables could cause actual results or trends to differ materially which include, but are not limited to: wafer price fluctuation, actual demand, rapid technology change, delays or failures of customers' tape-outs into wafer production, our ability to negotiate, monitor and enforce agreements for the determination and payment of royalties, any bug or fault in our technology which leads to significant damage to our technology and reputation, actual or potential litigation, semiconductor industry cycle and general economic conditions. Except as required by law, eMemory undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise.

Outline

- **Business Model**
- **Review of Operations for 1Q 2017**
- **Future Outlook**
- **Introduction of New IP**
- **Q & A**

About eMemory



- Largest Logic Non-Volatile Memory (NVM) IP company
- 233 employees (162 R&D)*.
- No fundraising from capital markets or bank loans since IPO in 2011.
- Over 90% of earnings distributed in cash dividends.

Note*: As of Mar. 31st, 2017

Business Model

- **Growth Metrics**
  - **No. of Embedded Platforms**
  - **No. of Design Licenses**
  - **Royalty**

Upfront License Fee
(Technology & Design License)

1-2 years
eMemory & foundry development

Technology License Revenue

1-2 years
Fabless product development

Design License Revenue

3+ years
Multiple applications & sales

Royalty Revenue Continues

Royalties
Collected directly from foundries upon volume production of customers' chips

Worldwide Customers

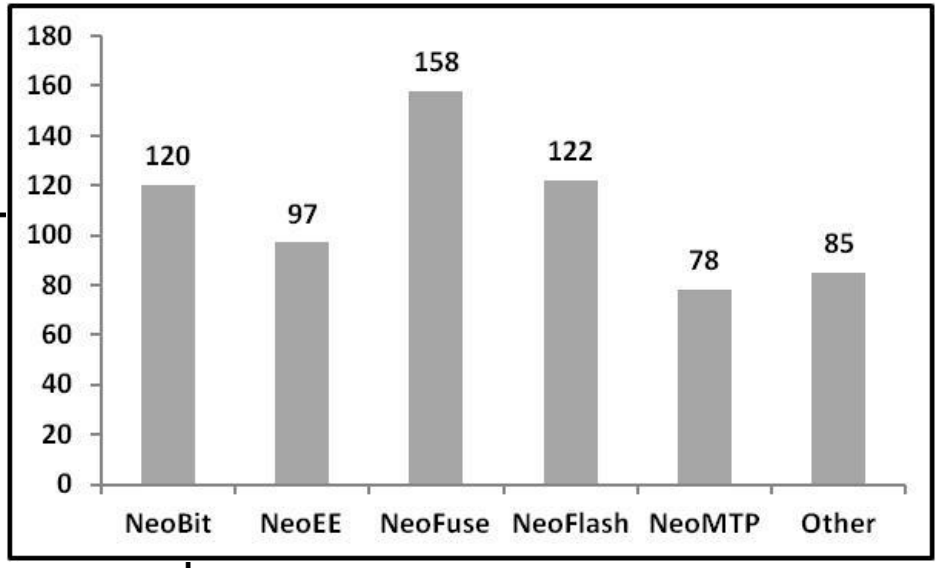
Foundry

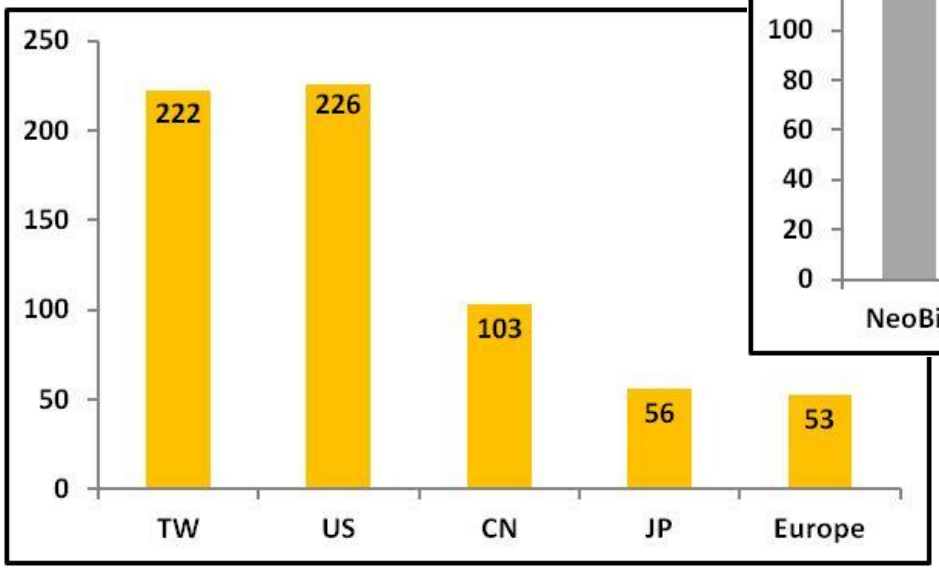
IDM

	Taiwan	China	Korea	Japan	North America	Europe	Others
Foundry	5	7	3	3	1	2	1
IDM	0	0	0	8	2	1	0
Fabless	264	496	66	51	226	111	50

Patent Portfolio

	4Q 16	1Q 17	Change
Pending	218	244	+ 26
Issued	389	416	+ 27
Total	607	660	+ 53

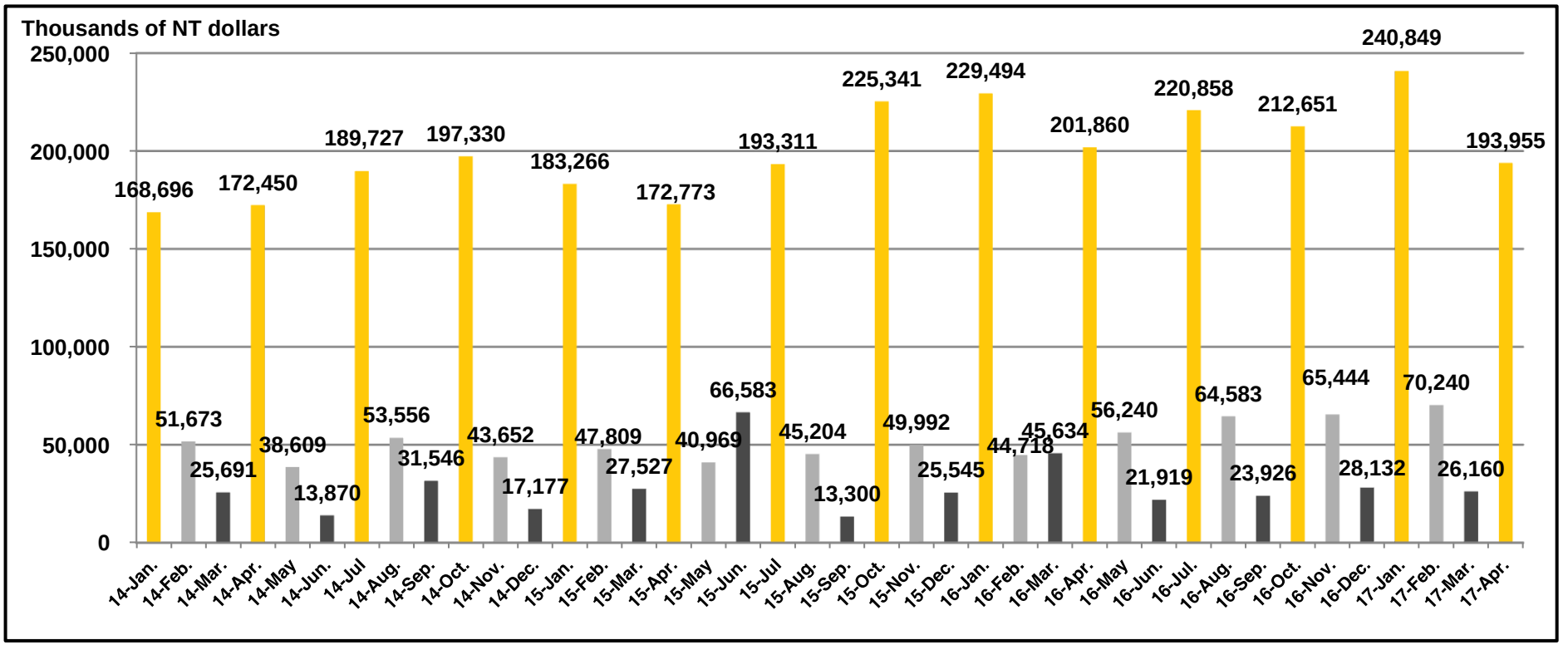




Note: As of Mar. 31st, 2017

Quarterly Revenue Pattern

- 1st month: Receive License Fees of the month and Royalty from most foundries on previous quarter's wafer shipments
- 2nd month: Receive License Fees of the month and Royalty from other foundries
- 3rd month: License Fees Only.



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Q1 Revenue Breakdown

Thousands of NT dollars

	Q1 2017	Q4 2016	QoQ	Q1 2016	YoY	2016	2015	YoY
Licensing	74,146	79,684	-6.95%	85,976	-13.76%	330,087	267,512	23.39%
Royalty	263,103	226,543	16.14%	233,870	12.50%	885,372	824,108	7.43%
Total	337,249	306,227	10.13%	319,846	5.44%	1,215,459	1,091,620	11.34%

Number of Licenses

		Q1 2017	Q4 2016	2016	2015
Technology Licenses		5	10	43	28
Design Licenses	NRE	8	12	56	57
	Usage	88	73	311	349

Financial Income Statement

Amount in Thousands of NT Dollars, except margins/EPS/ROE

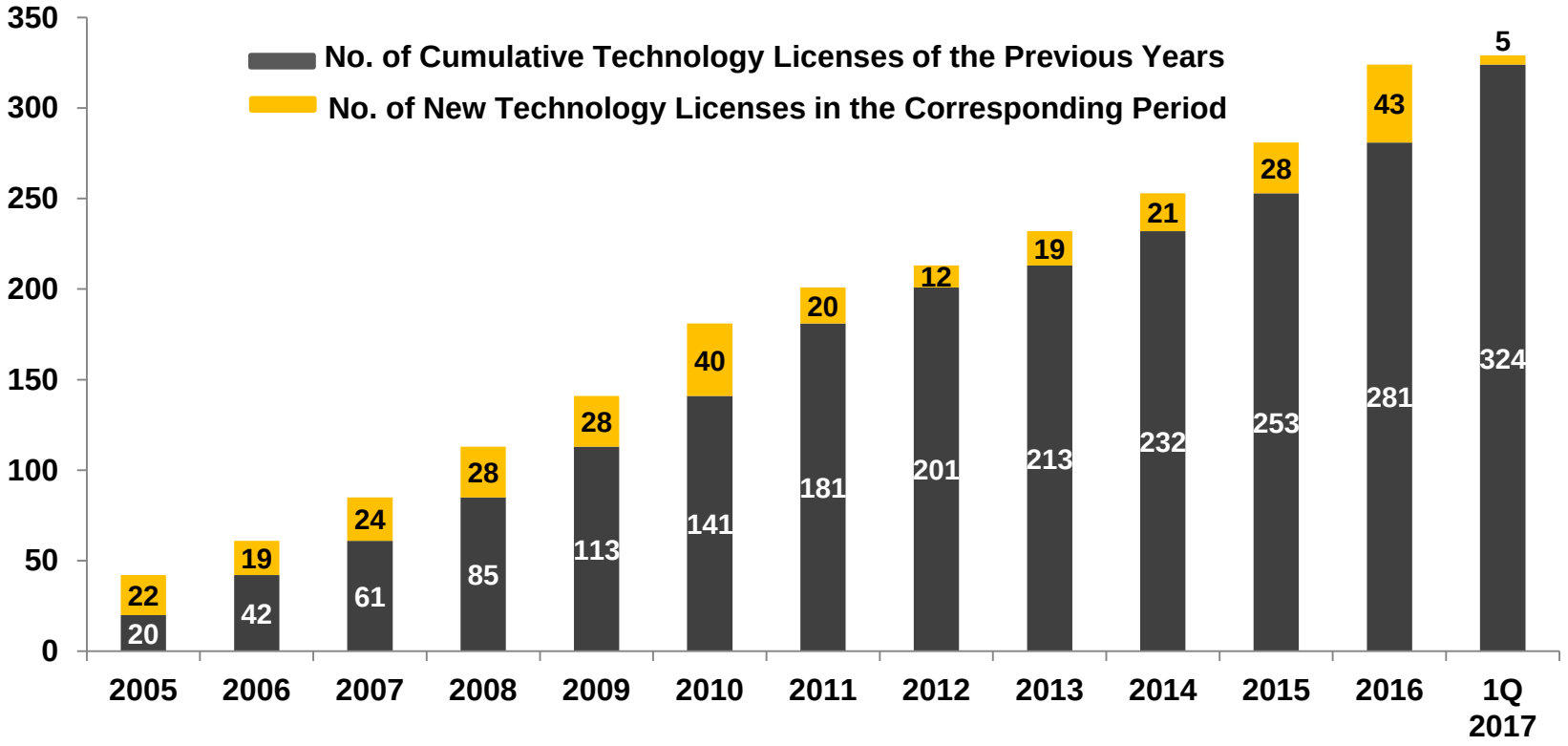
	Q1 2017	Q4 2016	Q1 2016	change (QoQ)	change (YoY)
Revenue	337,249	306,227	319,846	10.1%	5.4%
Gross Margin	100%	100%	100%	-	-
Operating Expenses	193,603	171,681	177,088	12.8%	9.3%
Operating Margin	42.6%	43.9%	44.6%	-1.3ppts	-2.0ppts
Net Income	151,378	132,361	166,012	14.4%	-8.8%
Net Margin	44.9%	43.2%	51.9%	+1.7ppts	-7.0ppts
EPS	2.00	1.75	2.19	14.3%	-8.7%
ROE	30.2%	28.3%	34.9%	+1.9ppts	-4.7ppts

Technology Licensing

Number of Licenses

Year	2014	2015	2016	1Q 2017
License	21	28	43	5

Note: Terms (including number of process platforms and licensing fees) for each technology license are set contractually. Payments are made according to set milestones, and there are no particular seasonal factors involved.



New Technologies Under Development

- New technologies being developed for 111 platforms by Q1 17.
- 19 for NeoBit, 48 for NeoFuse, 24 for NeoEE, and 20 for NeoMTP.

	7/10nm	12/14/16nm	28nm	40nm	55/65nm	80/90nm	0.11~ 0.13um	0.15~ 0.18um	>0.25 um
NeoBit	-	-	-	-	-	-	6	13	
NeoFuse	3	3	10	5	10	6	6	5	-
NeoEE	-	-	-	-	-	-	5	19	-
NeoMTP	-	-	-	-	1	2	5	12	-

Note: As of Mar. 31st, 2017

Technology Developments by Processes

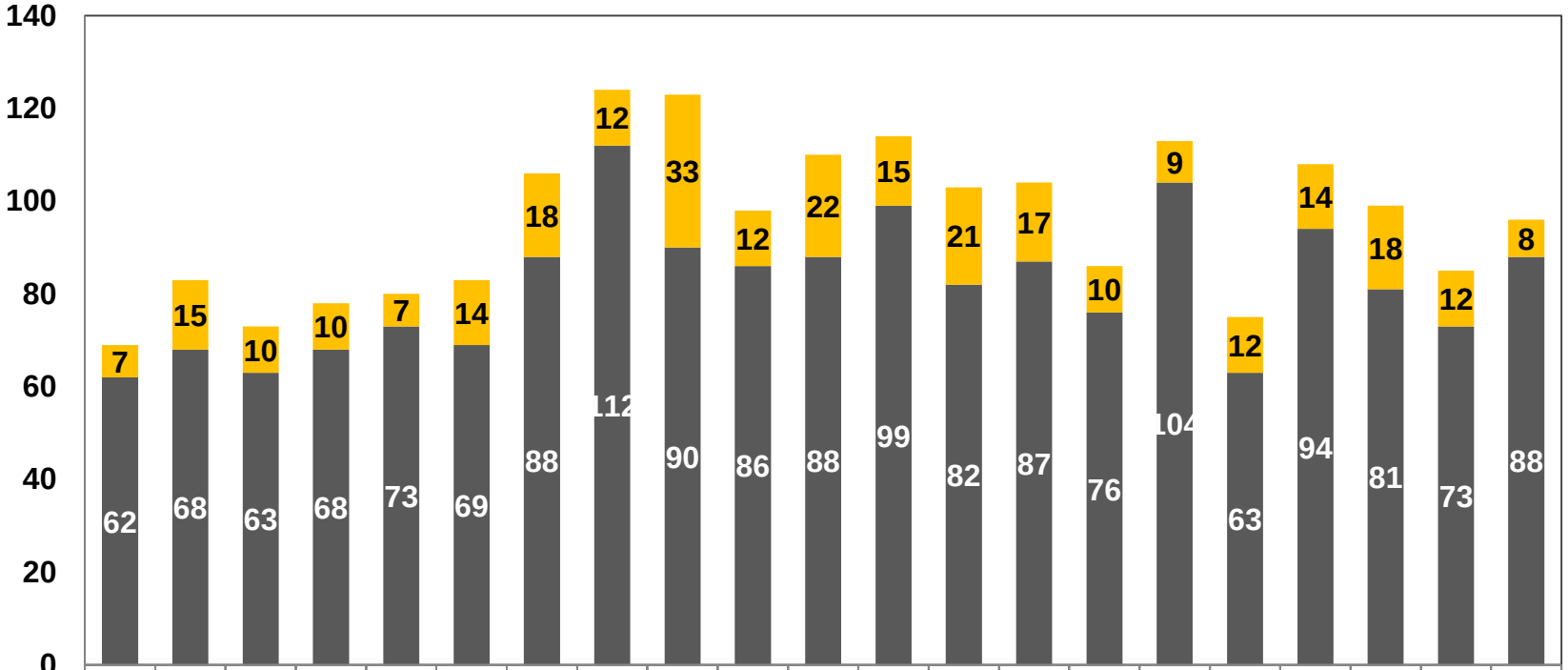
12" Fabs	Production	Developing	NVM Type	Process Type
7/10nm	0	3	OTP	FF
14/16nm	2	3	OTP	FF+
28nm	6	10	OTP	LP/HPM, HLP/HPM, LPS
40nm	6	5	OTP, MTP	HV-DDI, LP
55/65nm	14	11	OTP, MTP, Flash	LP, HV-DDI, HV-OLED, DRAM, CIS
80/90nm	6	5	OTP, MTP	HV-DDI, HV-OLED, LP
0.13/0.11um	8	2	OTP, Flash	HV-DDI, BCD, Generic
0.18um	1	0	OTP	BCD
Total	43	39		

8" Fabs	Developing	NVM Type	Process Type
90nm	3		
0.13/0.11um	20	OTP, MTP, Flash	HV-DDI, BCD, LP, RF, CIS, LL
0.18/0.16/0.152um	49	OTP, MTP	Generic, LP, LL, MR, HV, Green, BCD
0.25um	0	OTP, MTP	BCD
0.35um	0	OTP	UHV
Total	72		

Note: As of Mar. 31st, 2017

Design Licensing (New Tape-Out)

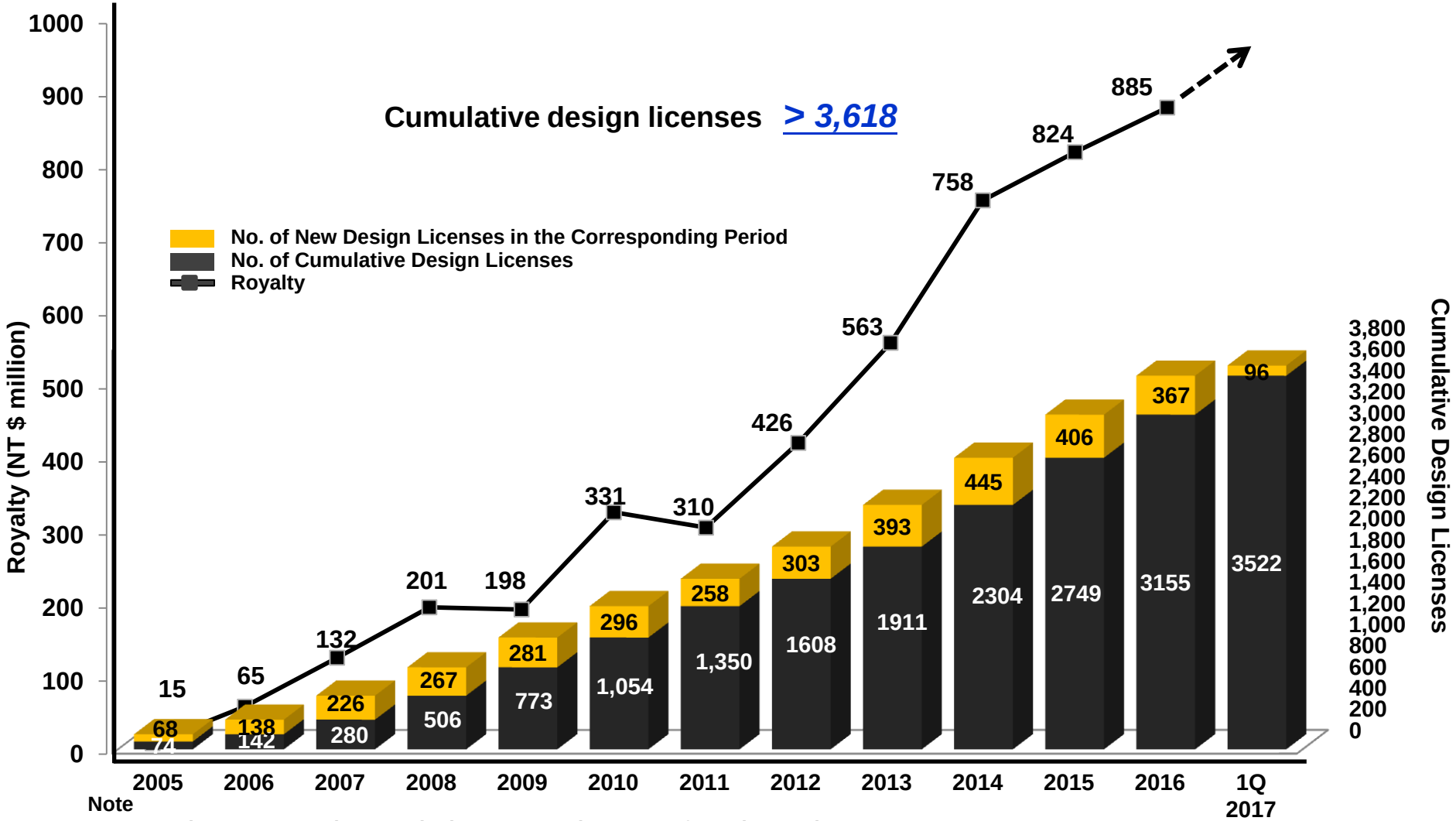
- *A total* 96 NTO in 1Q 2017 *(367@2016,406@2015,445@2014, 393@2013)*



	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
	2012				2013				2014				2015				2016				2017
NRE	7	15	10	10	7	14	18	12	33	12	22	15	21	17	10	9	12	14	18	12	8
Usage	62	68	63	68	73	69	88	112	90	86	88	99	82	87	76	104	63	94	81	73	88

Note*: As the applications of MCU at several foundries have gradually entered mass production, and the business model of the main foundry partner which provides green process has shifted to — eMemory licenses IP cell to the foundry for it to provide direct design service to customers — as the result, the new tape out number of MCU has been affected, but the royalty coming from IP cell usage continues to roll in.
In summary, even the new tape out number of MCU is lower than before; the corresponding wafer output and royalty continue to grow.

Cumulative Licenses Drive Future Royalties



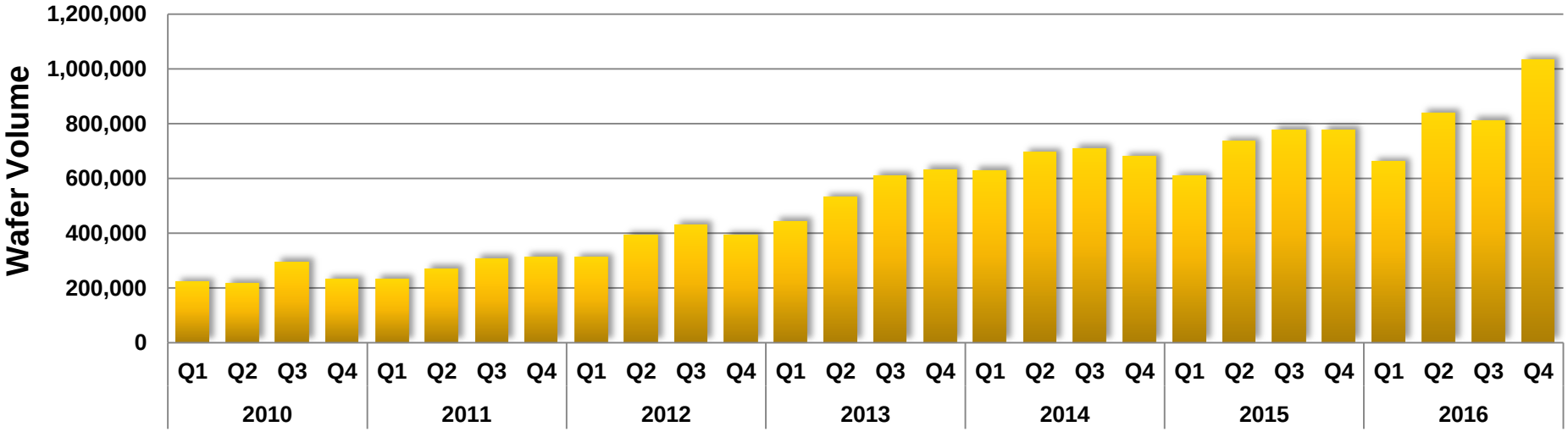
Note

1: Due to the 2009 recession, royalty income was down 1.5% from the previous year.

2: Prepaid royalty from a single customer contributed to 2010 annual growth of 67%, followed by a drop of 6.3% in 2011.

3: CAGR for 2009-2013 was 30%.

Wafer Production Volume



Ememory IP's Penetration Rates in T Company (in US$revenue)

	Process node	*% of T	Q1 17	Q4 16	2016	2015
8"	0.25/0.35	2%	37.05%	26.80%	28.15%	33.49%
	0.15/0.18	11%	9.10%	10.93%	12.43%	8.73%
	0.11/0.13	2%	41.92%	58.06%	42.61%	29%
12"	90nm	4%	10.96%	14.8%	12.50%	19.85%
	65nm	11%	3.50%	3.9%	3.59%	0.55%
	40/45nm	13%	0%	0%	0.00%	0%
	28nm	25%	0.56%	0.70%	0.55%	0.05%
	16/20nm	31%	0%	0%	0.00%	0%
8"		16%	16.13%	18.60%	18.86%	16.64%
12"		84%	1.15%	1.56%	1.44%	1.87%
Total		100%	3.54%	4.12%	4.27%	4.76%

*** T company's Q1 2017 revenues broken down by process nodes**

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Outlook for Q2 and beyond

We anticipate our revenue growth will accelerate in the second half of this year.

- **On licensing revenues:**
  - **Our technology and design license revenues are expected to grow on the continuing expansion of our IP libraries, and on the demand for building advanced processes and MTP platforms among our worldwide foundry partners.**
- **On royalty revenues：**
  - **Royalty from fingerprint sensors will grow significantly as more customers start volume production.**

Outlook for Q2 and beyond

- **PMIC related royalty will maintain the growth momentum with content increase on new smartphones and the ramp of new products by our largest US customer in second half of 2017.**
- **High-end DDI and TDDI applications will continue volume production in the second half of the year, which will contribute to our royalty growth.**
- **Royalty from 28nm is set to increase with more product tape-outs in 2017.**

Outlook for Q2 and beyond

- **On our R&D results**
  - **Our client will have a new product tape-out at 12nm fab in August. The 7nm IP first taped out in March at one foundry, and one more tape-out expected in August at another foundry.**
  - **Our new IP, NeoPUF is expcted to be integrated to chip design by the end of this year.**
  - **Automotive applications have been successfully built and customers have started volume production on a small scale.**

Key Growth Drivers

Growth in application per mobile devices	• More chip applications per smartphone/tablet product.
Growth into more markets	• From consumer electronics and mobile devices to wearable devices. • Adding new NVM product lines further enable more product applications.
Growth in advanced technology	• Higher royalty per wafer is contributed from more advanced technology nodes.
Great IoT era	• Embedded Logic NVM will be a must.

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What is NeoPUF?

- **NeoPUF Technology & Design**
  - **Innovative technology to extract random number from manufacturing variations.**
- **NeoPUF to provide each chip a secrete random number as chip "fingerprint"**
  - **to enhance chip-level data storage security**
  - **to generate a security key**
  - **a digital signature for hardware**
  - **other security protections like device secure booting, device root of trust**

Who Needs NeoPUF?

Device for Payment

IC with Security Data

Original Device Maker

Q & A

ememory

Embedded Wisely, Embedded Widely