

The background of the slide is filled with a pattern of white, 3D-outlined cubes. These cubes are arranged in a way that creates a sense of depth and movement, with some cubes appearing to be in the foreground and others receding into the background. The cubes are scattered across the entire slide, providing a modern, geometric aesthetic.

# ememory

## **A Leading Logic NVM Company**

**Li-Jeng Chen**

**June 23, 2014**

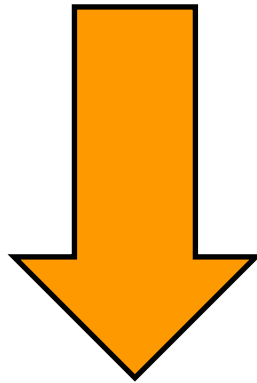
# IPR Notice

**All rights contained in this information, the text, images or other files herein, including but not limited its ownership and intellectual property rights, are reserved by eMemory. This information contains privileged and confidential information and shall not be disclosed, copied, distributed, reproduced or used in whole or in part without prior written permission of eMemory Technology Inc.**

**eMemory, NeoBit, NeoFlash, NeoEE, NeoFuse and NeoMTP are all trademarks and/or service marks of eMemory in Taiwan and/or in other countries.**

# What's Logic Non-Volatile Memory (NVM)

**Embedded NVM = LOGIC + 10 Masks**

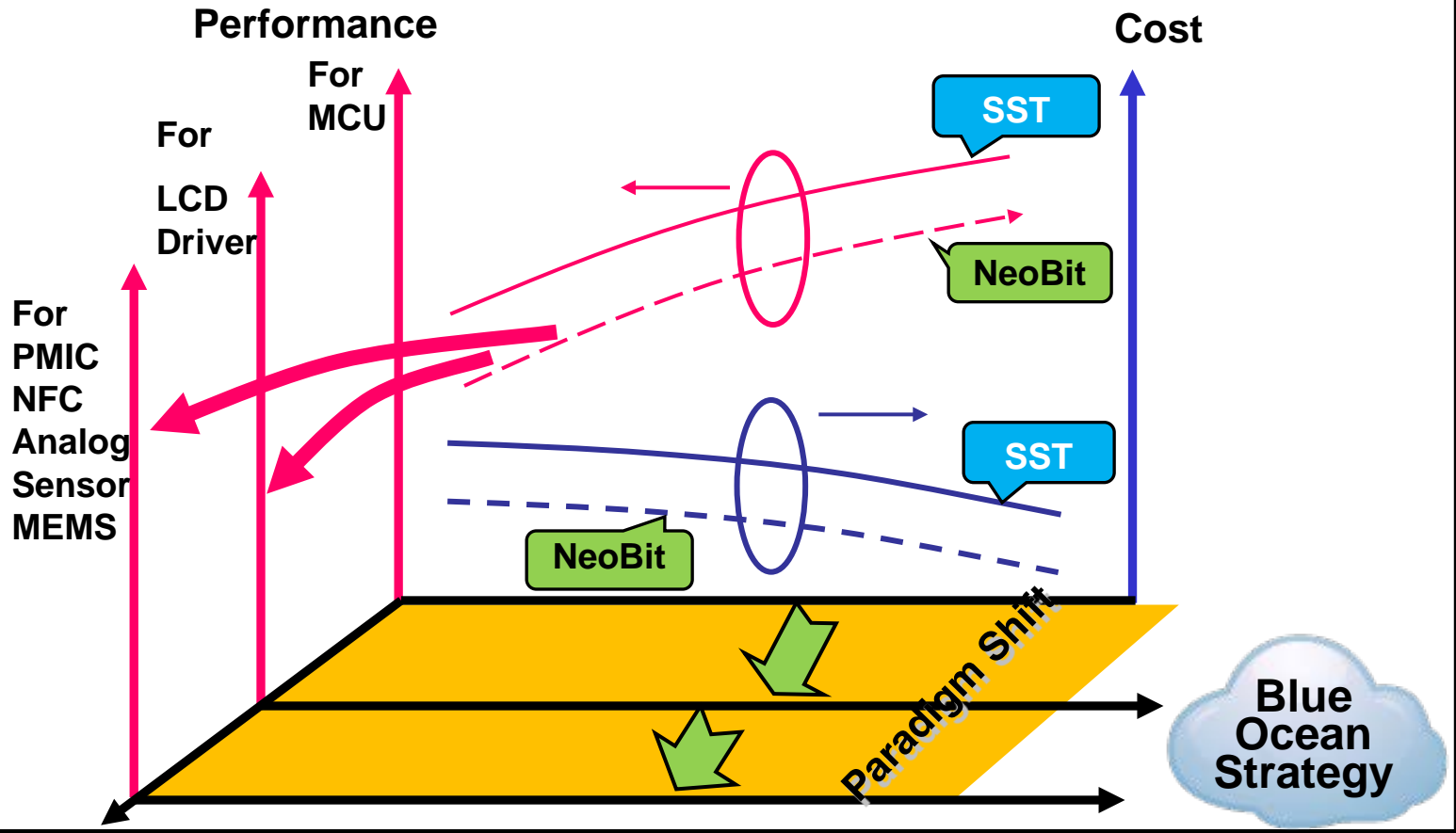


**>30%**  
*cost reduction*

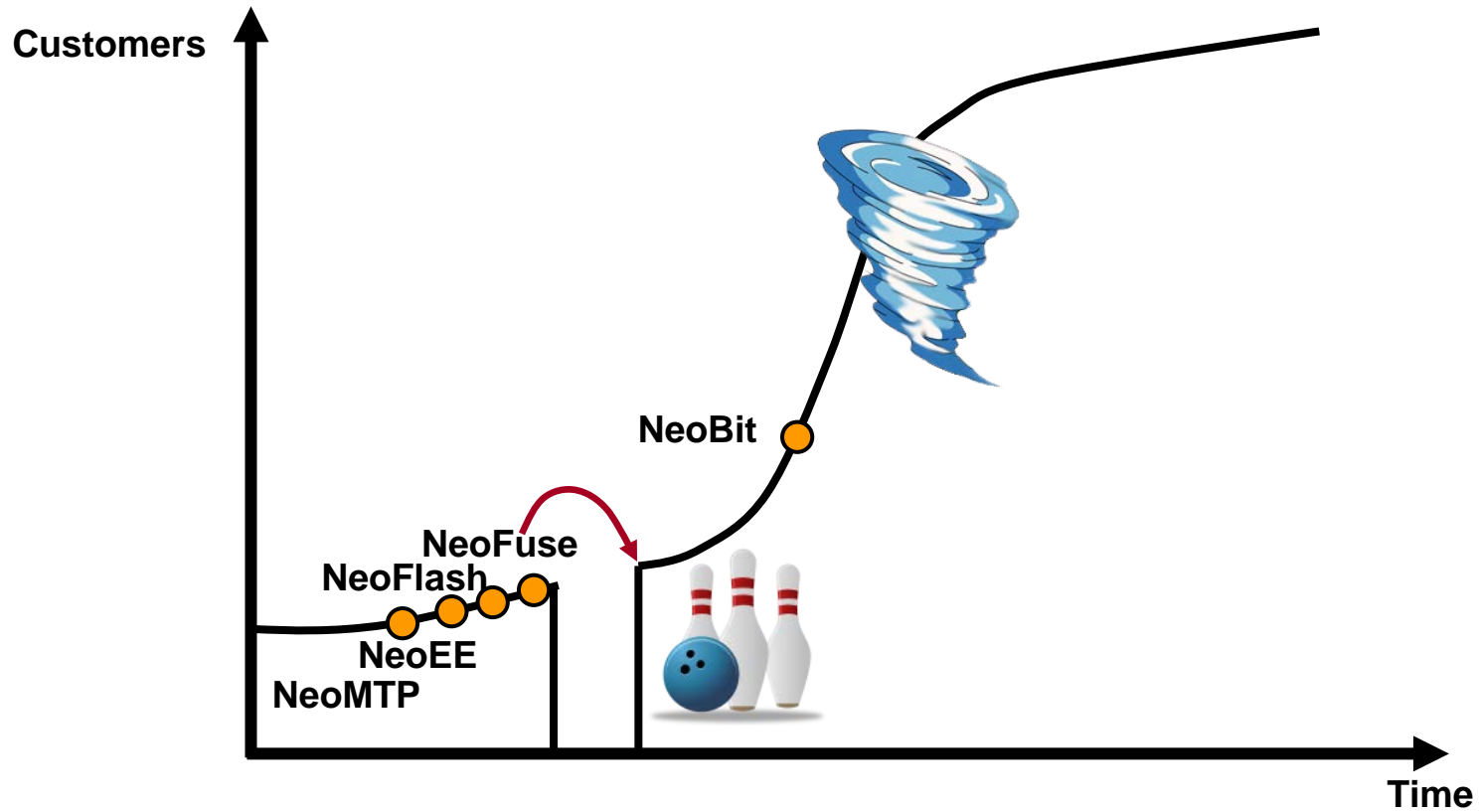
**Embedded LOGIC NVM = LOGIC**

# What We Have Done

● *Innovation, Innovation, and Innovation !*



# Crossing the Chasm



# Our Position

- Global leader of logic non-volatile memory (NVM) Technology
- Received TSMC's best IP partner award for 4 consecutive years (2009-2013), on par with ARM and Synopsys
- Innovative business model leads to high profit margin
  - Upfront license fee + Running royalties



- Over 2500 technology & design licenses
  - Growing by 400+ every year
- 700+ potential royalty payers
- Industry's largest talent pool
  - More than 70% of employees on R&D teams

# Unique Business Model

## **No capex needed to drive organic growth**

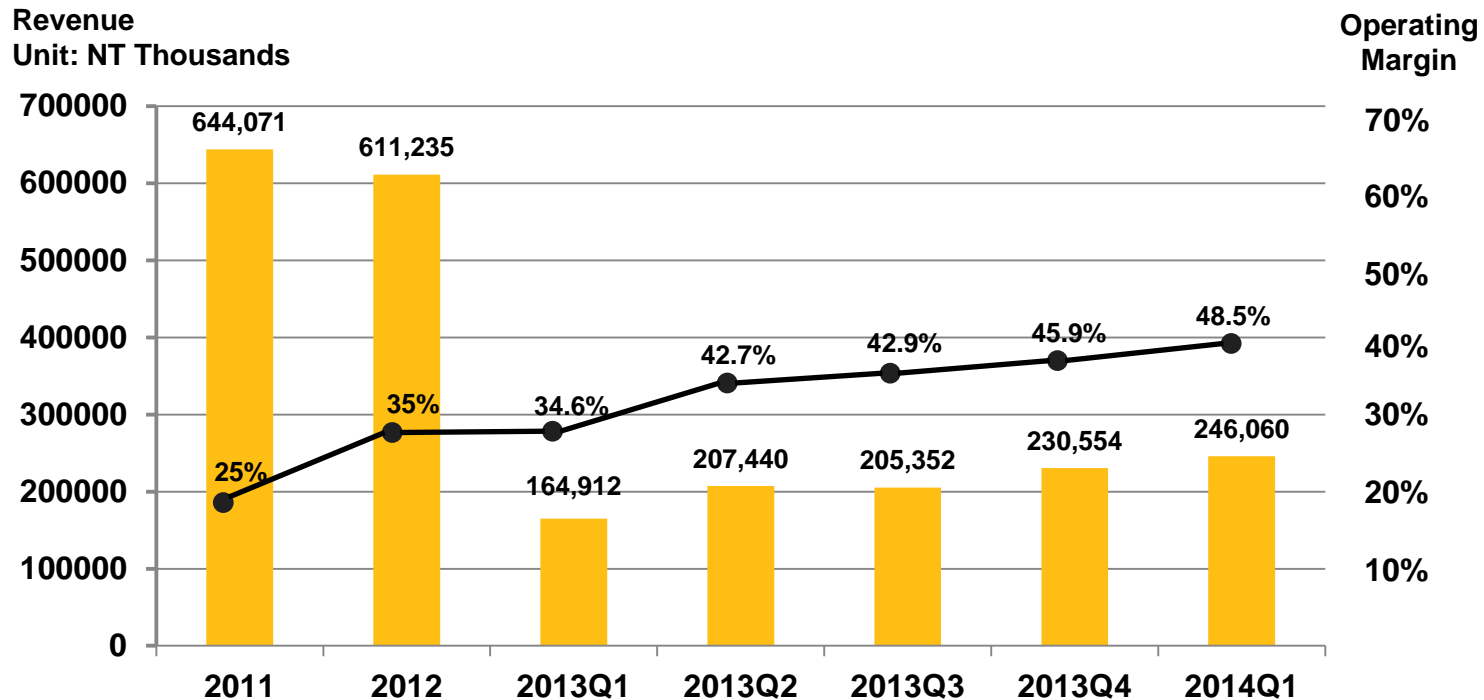
- Only investment is R&D personnel. Dedicated team moves from fab to fab to finish process development and qualification. All costs (mask, QD) incurred are absorbed by foundry.

## **Competitive upfront fee structure and accumulated royalty backlog, hard for new comer to catch up**

**Able to enter the right technology node at the right time to maximize ROI .**

## **Returns 100% cash to shareholder**

# High Operating Leverage

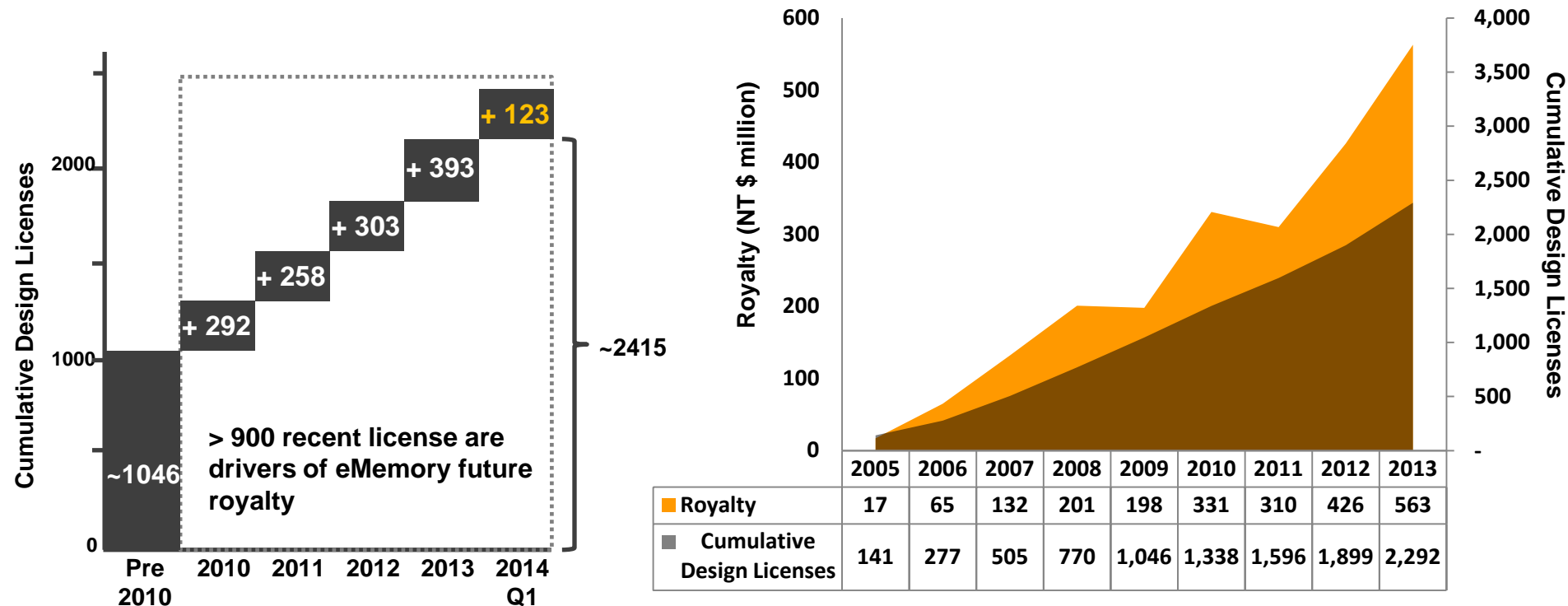


- Upfront fee (Licensing) covers most of operating expense.
- Royalty payments contribute to bottom line earnings.
- 2013 revenue grows 32.23%(YoY), EPS up 80% (YoY)
- 2014Q1 revenue grows 49.21%(YoY), EPS up 108.57% (YoY)

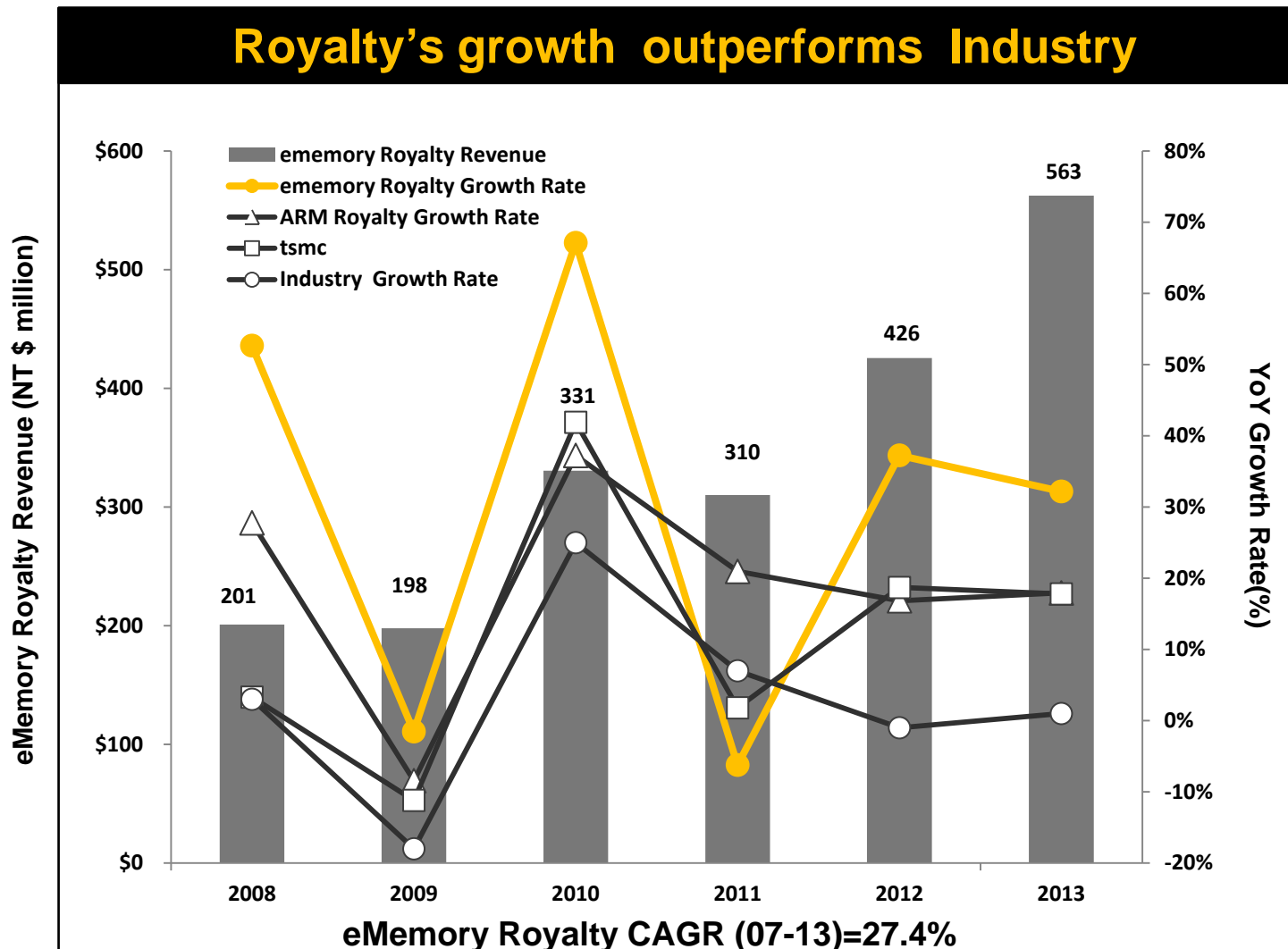


# Licensing Drives Future Royalties

- 20 technology and 393 design licenses were signed in 2013
- 5 technology and 123 design licenses were signed in 2014Q1
- Current royalty revenues are derived from design licenses signed many years ago
- Growing license base leads to royalty revenues over long period



# eMemory Outperforms Industry



# Increasing penetration rate

We believe TAM is equal to total world-wide foundry shipment.

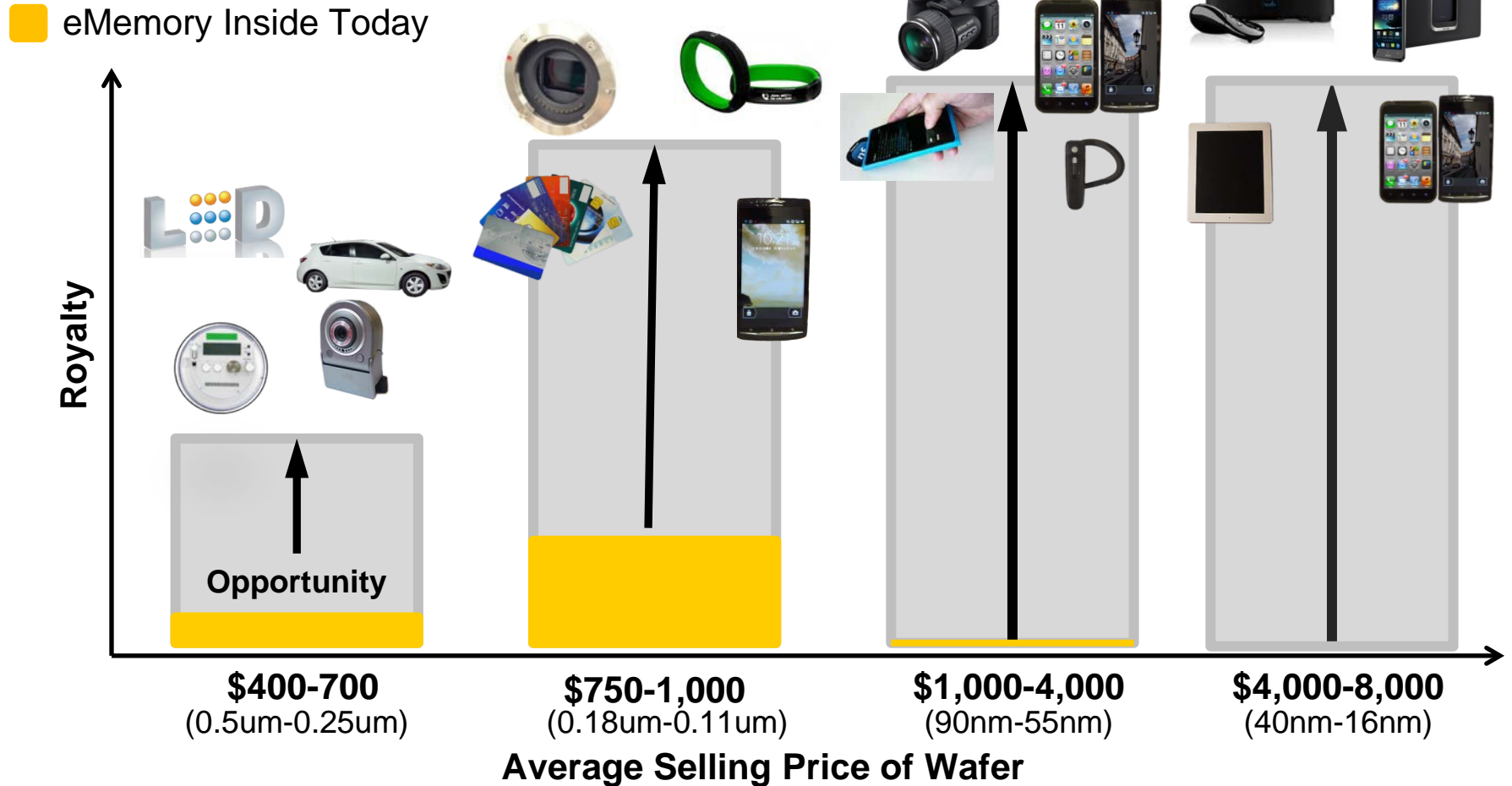
**In 2013, the numbers of wafers embedded with eMemory IP totaled 2.2 mil. Total world wide foundry shipment is 43 mil 8" equiv. wafers. Our current penetration share is only around 5%.**

TSMC was the main driving force for the last 3 yrs. Our penetration rate in TSMC increased from 3% in 2010 Q4 to 10% in 2013 Q4, and quarterly royalty revenue from TSMC increased 385% accordingly.

**Apple products related chip suppliers' contribution went from less than 15% of total royalty payments in 2013 to 25% in Q1 2014 . Expect the number to further increase in H2 of 2014.**

Penetrates into PMIC chip suppliers among Chinese smart phone vendors (used to dominate mainly on DDI chip solution) .

# Opportunity at all Price Points



Note: 2.2 million 8" equivalent wafers with eMemory IP were shipped in 2013. (~5% of WW foundry shipment)

# Applications with eMemory IP

12"

8"

# 16/20nm

# 28nm

**40nm**

# 55/65nm

## 80/90nm

# 110/130nm

**160/180nm**

**250nm**

**350nm**

# NeoBit

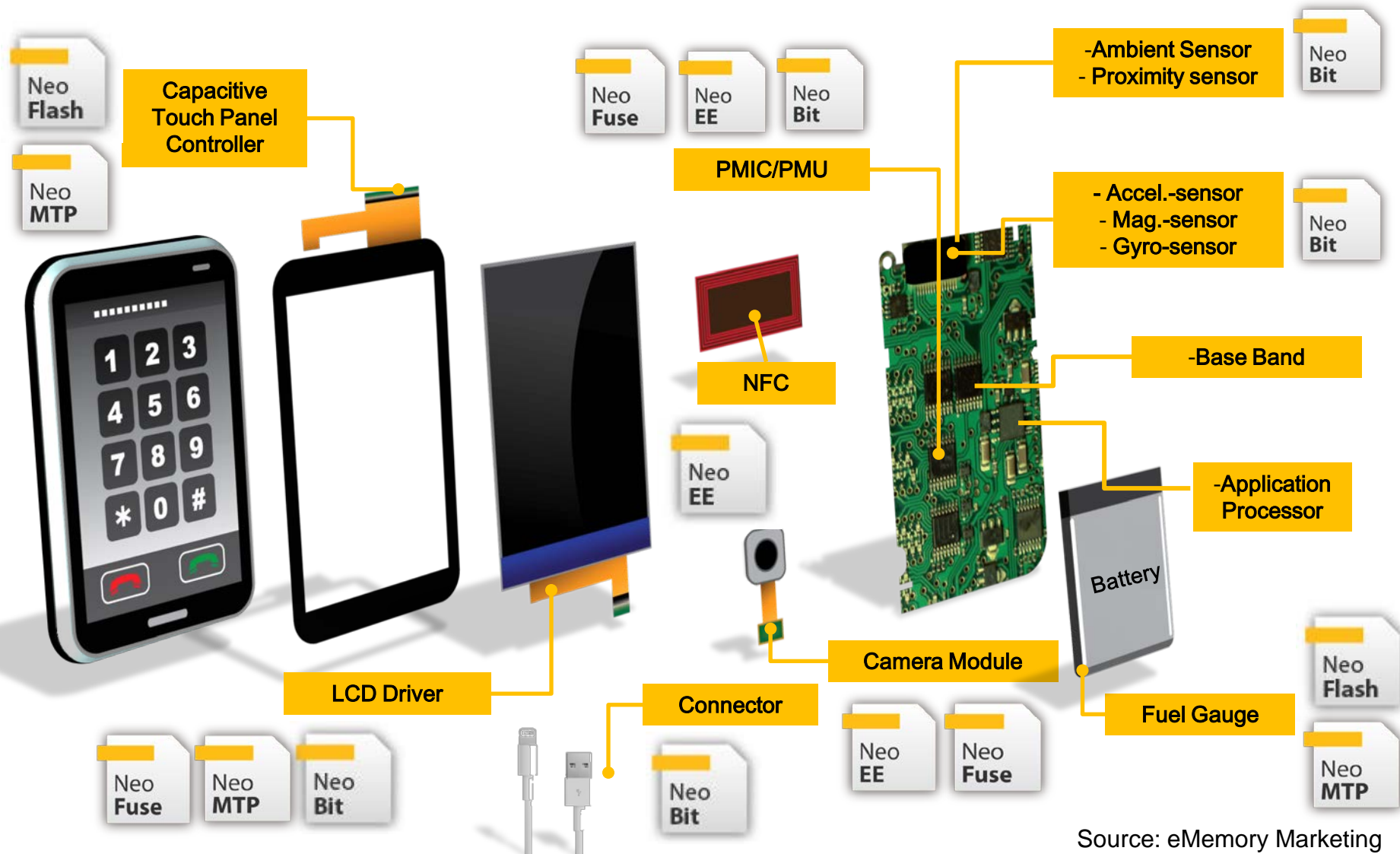
# NeoFuse

# NeoFlash

# NeoEE

# NeoMTP

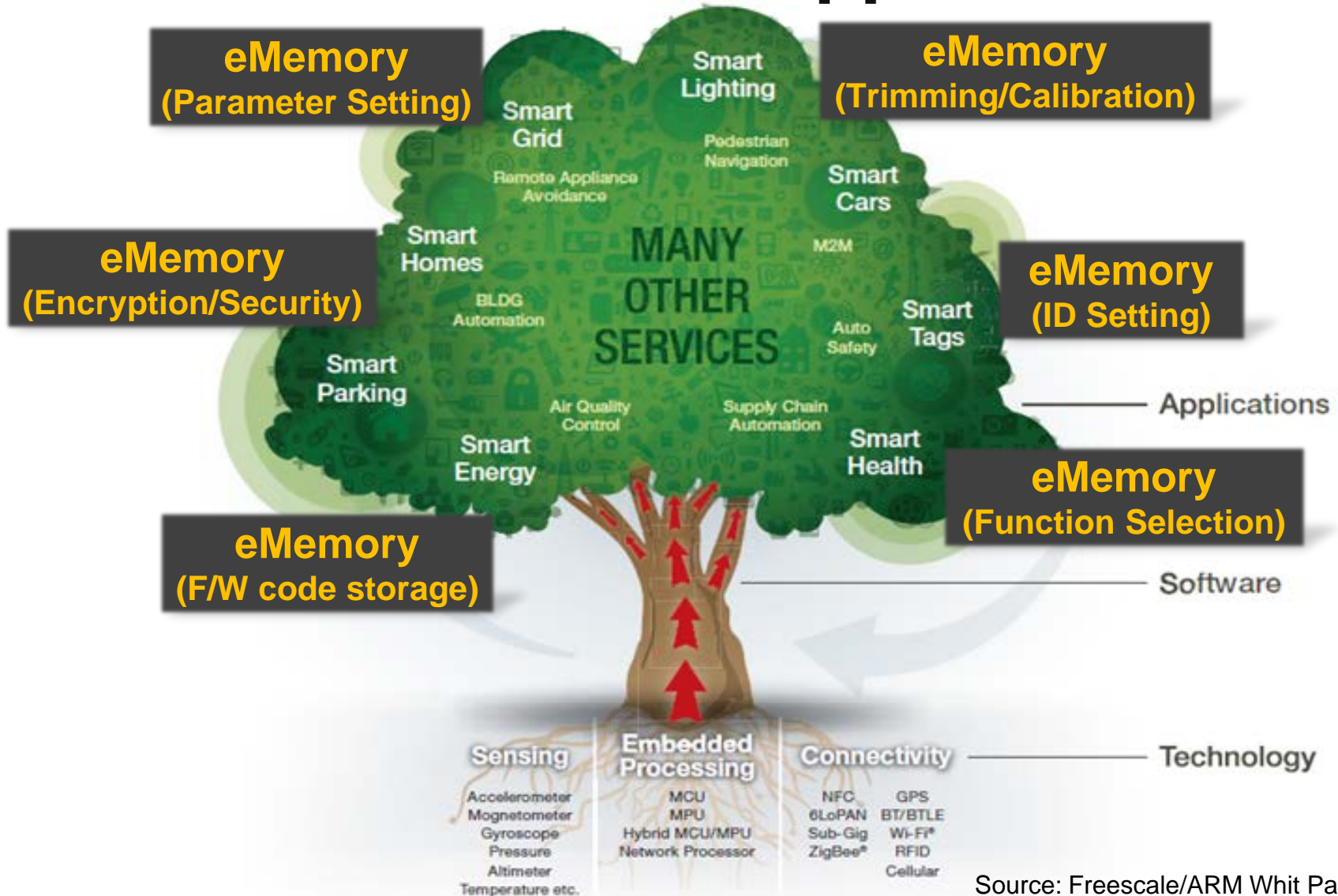
# eMemory IP in Smart Phone



Source: eMemory Marketing



# MCU & NVM in IoT Applications

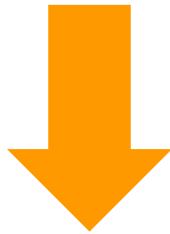


Source: Freescale/ARM Whit Paper 2013

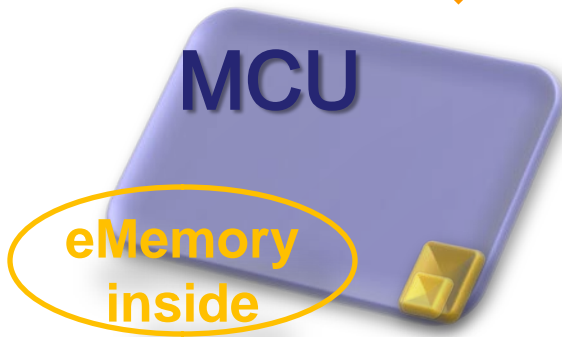
# Replacement of Embedded Flash for Competitiveness Improvement



product design & manufacturing by  
embedded Flash  
Logic Process + 10 Masks



***30% more  
cost reduction*** [ *wafer cost &  
testing time* ]



product design & manufacturing by  
Embedded Logic NVM (OTP/MTP)  
Logic Process



# Security & Protection

Authorized Product



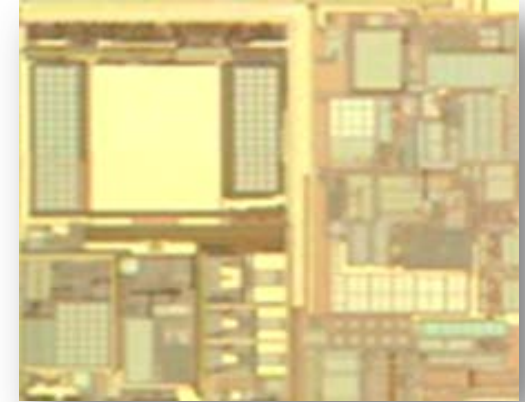
reverse  
copy

re-produce



without protection

Fake Product

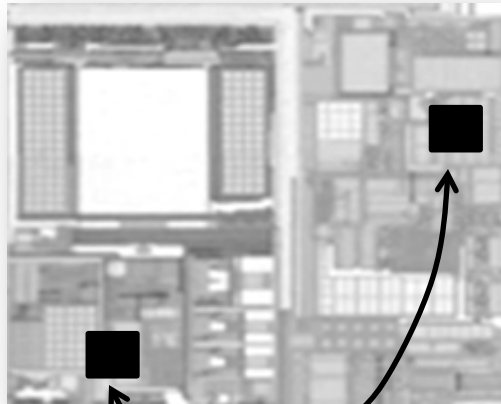


reverse  
copy

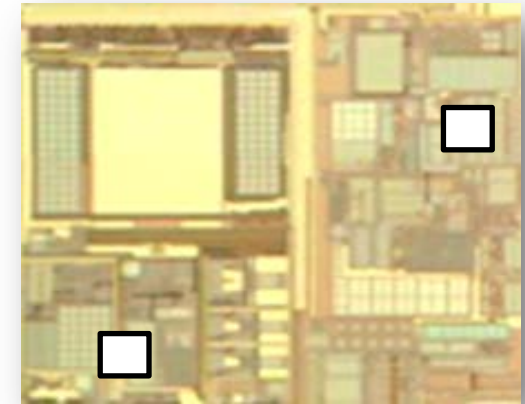
re-produce



with protection



**Security IP/Code by  
Authorized Use**



**Can NOT Work w/o  
Security IP/Code**

# Future Prospect

over 30% CAGR for the next 5 yrs

## Key growth drivers:

### Growth in value 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

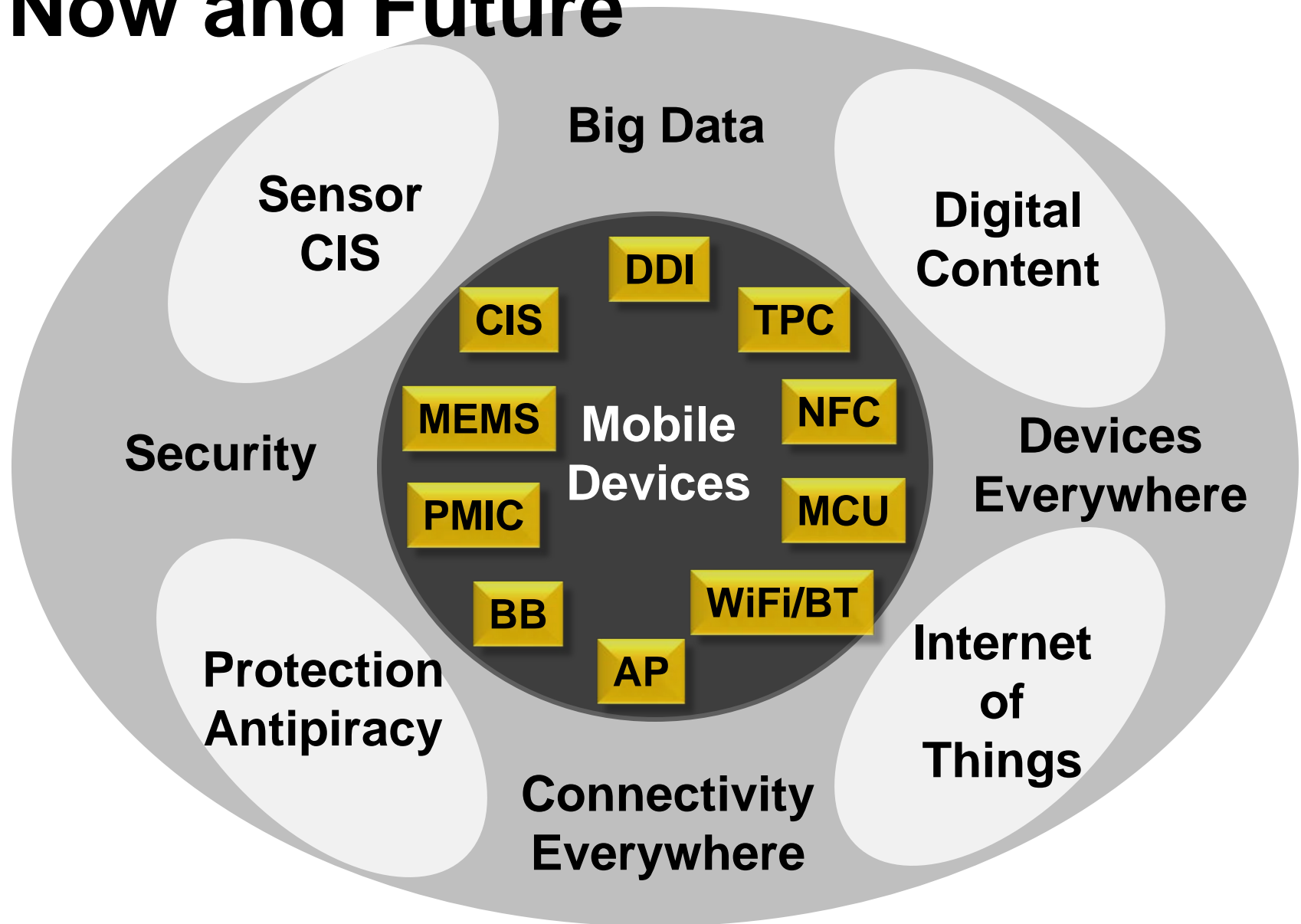
### Growth in more advanced technology

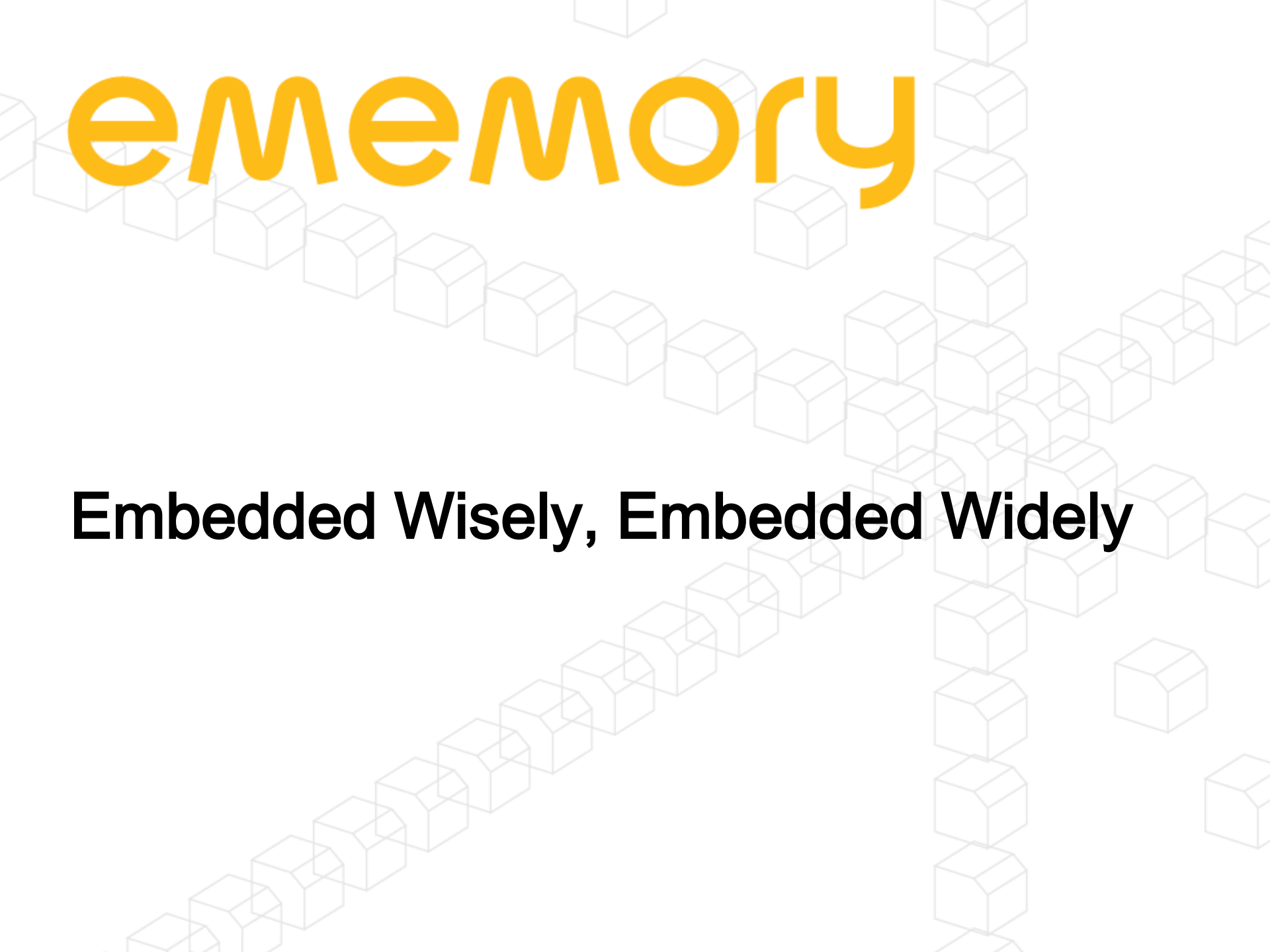
- Higher royalty per wafer is contributed from more advanced technology nodes.

### IOT great era

- Embedded Logic NVM will be a must.

# Now and Future





# ememory

**Embedded Wisely, Embedded Widely**