

TW Stock: 6674



COMPAL BROADBAND NETWORKS, INC

Oct, 2018



Agenda

1. Company Overview
2. Industry Trend
3. Operation & Financial Results
4. Strategy for Growth

Company Overview

CBN Current Focus



Headend



Distribution Network

Fiber

Fiber Node



Coaxial Cable

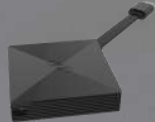
CPE

CBN Current Focus

Smart Cable Gateway



WiFi Extender



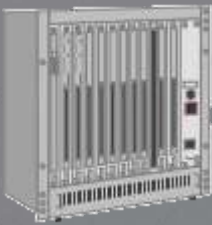
UHD IP STB



Smart Home device

Telco

OLT



Fiber



Splitter

Fiber

FTTH



ONT

DPU

FTTdp

Twisted pair copper wire



G.Fast

MDU

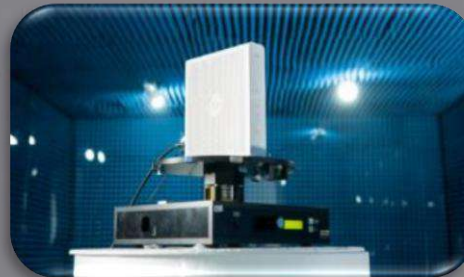
FTTC



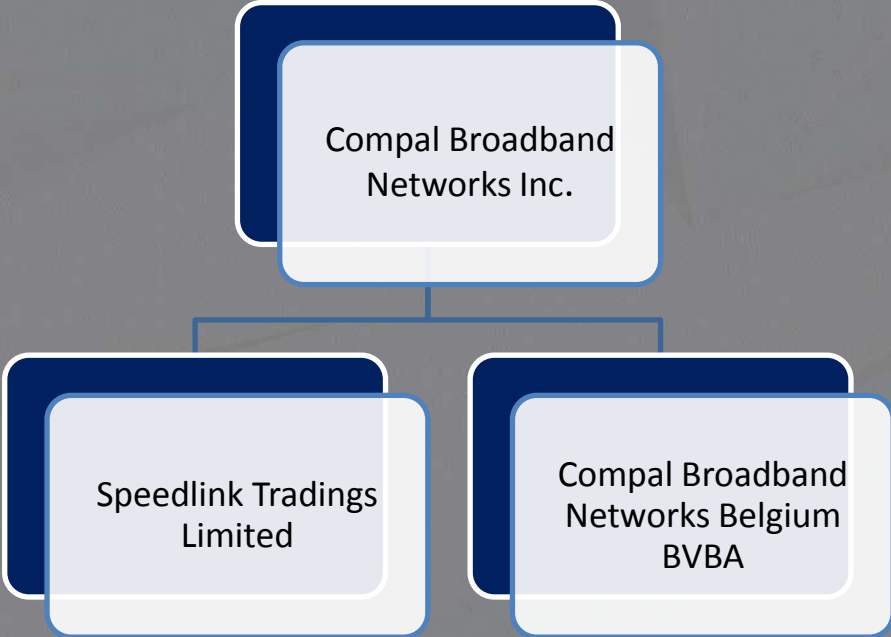
VDSL2

Company Introduction

Established	August 19 th , 2009
Chairman of Board	Mr. Martin Wong
Chief Executive Officer	Mr. Alex Wang
Headquarter	13F-1, No.1, Taiyuan 1st St., Zhubei City, Hsinchu County 302, Taiwan (R.O.C.)
Capital	NT\$605,714,810
Main Product Line	Smart cable gateway, Wi-Fi extenders , UHD IP-STB (4K/8K), Smart home devices
Number of Employees	161 Headcounts (as September 2018)



Subsidiaries



Company	Location	Capital	Shareholding	Function
Speedlink Tradings Limited	British Virgin Islands	USD 50,000	100%	Import and export trading
Compal Broadband Networks Belgium BVBA	Belgium	EUR 200,300	100%	Import and export trading, technical support, local customer service

Board Member

Position	Name	Academic/Experience
Chairman	Mr. Martin Wong	MBA, National Chiao Tung University CEO of Compal Electronics, Inc.
Director	Mr. Ray Chen	BA EE, National Cheng Kung University Vice Chairman of Compal Electronics, Inc.
Director	Mr. Alex Wang	BA Computer Science, University of Massachusetts CEO of Compal Broadband Networks, Inc.
Director	Mr. Jonson Tsai	MS EE, National Taiwan University Vice President of Realtek Semiconductor Corporation
Independent Director	Mr. Jim Wong	MBA, Emory University Global President of Acer Incorporated
Independent Director	Mr. Vincent Mao	MS EE, Nation Cheng Kung University Chairman of Sitronix Technology Corporation
Independent Director	Ms. Miao-Ling Chen	PhD Business Administration, Keio University Professor of National Sun Yat-sen University, Finance Department

- **The audit committee and the compensation committee consist of all independent directors**

Company Milestone



Aug 19, 2009

CBN Established



- 1.CBN first DOCSIS3.0 8x4 Wi-Fi Smart cable gateway launched
- 2.Setup Netherland logistics center



- 1.Established call center in Turkey
- 2.Launched DBC DOCSIS3.0 8x4 Wi-Fi smart cable gateway in Germany



- 1.Awarded by global No.1 MSO DOCSIS3.0 24x8 Wi-Fi Smart Cable Gateway project
- 2.Launched FHD IP-STB



- 1.Launched DOCSIS3.0 24x8 Wi-Fi Smart cable gateway for global No.1 MSO
- 2.Established CBN Belgium BVBA

CBN DOCSIS3.1 Smart cable gateway Cablelabs CW121 certified

2009 2010 2011 2012 2013 2014 2015 2016 2017 2018

- 1.CBN acquired Motorola EMEA Cable CPE business
- 2."CBN " brand launched to EMEA MSO



- 1.First in market CBN DOCSIS3.0 8x4 DBC Wi-Fi smart cable gateway in Belgium
- 2.TL9000 certified



Launched worldwide smallest DOCSIS3.0 16x4 Wi-Fi Smart cable gateway in Sweden



- 1.Developed DOCSIS3.1 8x8 11ac Wi-Fi Smart Cable Gateway
- 2.Setup CBN office in USA
- 3.Setup EU repair center in Poland



- 1.Successfully launched Wi-Fi Extender and residential gateway
- 2.Dec 1st, 2017 IPO
- 3.Dec 29th, 2017 Listed at Emerging Stock Market

Global Facilities



Brussels, Belgium

CBN Belgium BVBA

Import and export
Trading, FAE,
Customer service

Zhubei, Taiwan

CBN Headquarter

Sales, Marketing, Engineering,
Operation, Quality, Finance, HR



Philadelphia, USA

CBN US Region Office

Pre sales



Amsterdam, Netherlands

**CBN Multi-function
Hub**

Warehouse, Logistics,
Configuration,
Re-work



Poland, Romania
Hungary, Spain

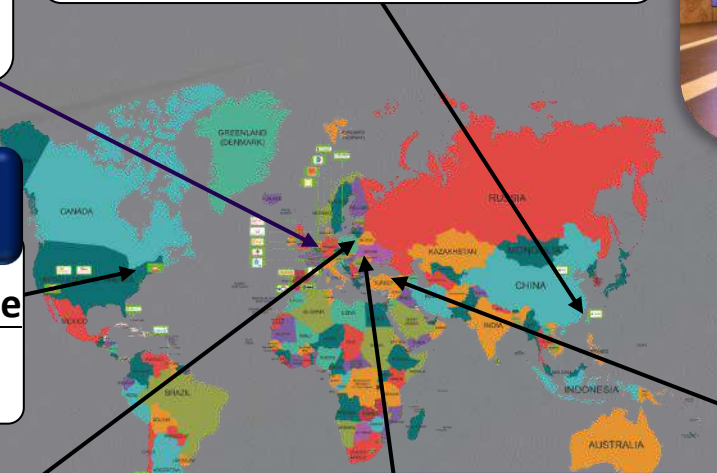
CBN After Service

Refurbishment and
Board level repair

Istanbul, Turkey

CBN Call Center/ TAC

Hot line Service,
Region tech-Support
Customer feedback
collecting



CBN in Numbers



#1

EU cable CPE market



40%

EU cable CPE market share



23Mu

Shipment worldwide



25

Country footprints



30%

2015 – 2017 revenue
YOY growth



NT\$3

EPS over NT\$3
2010 – 2017

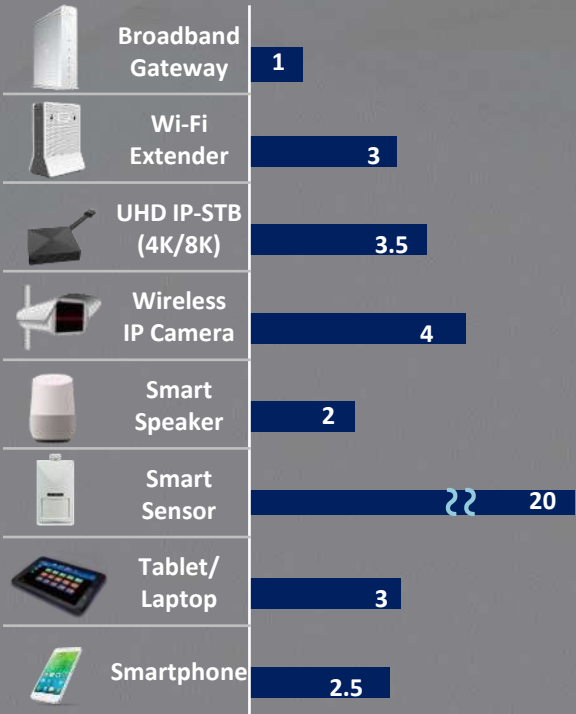
Industry Trend

MSO'S Smart Home Ecosystem



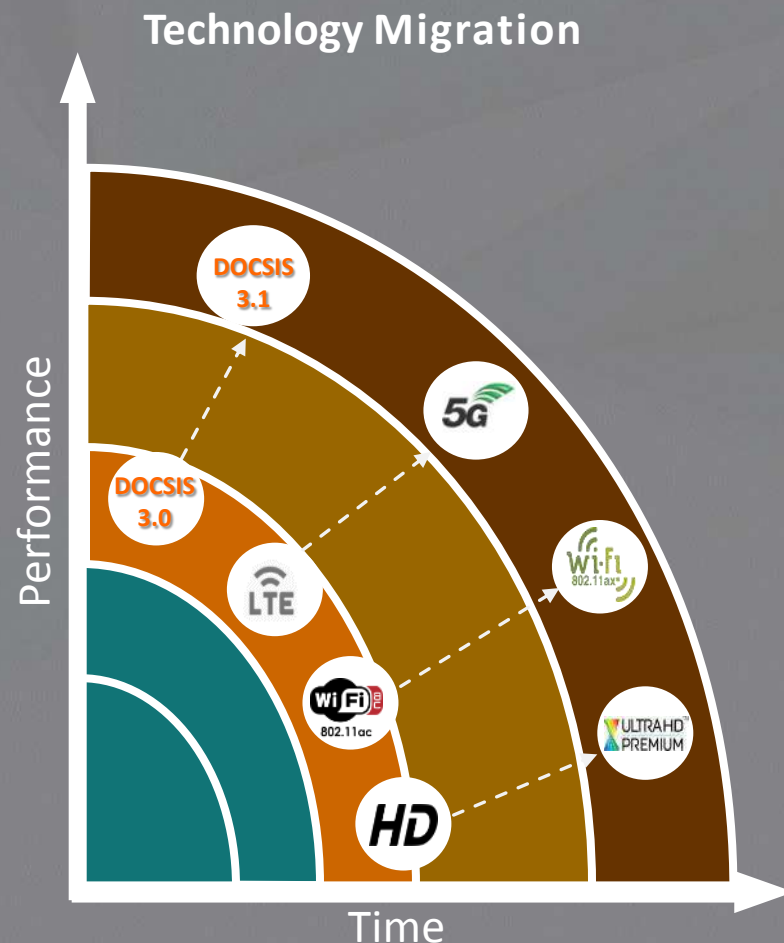
Smart Home Domains:

- High Speed Broadband Networking: Smart Cable Gateway, RGW, 5G Gateway, PON
- Home Networking: Wi-Fi Extender
- Media Sharing: UHD IP-STB (4K/8K) with OTT support
- Home Automation & Security: smart speaker, smart home sensors, IP-Cam



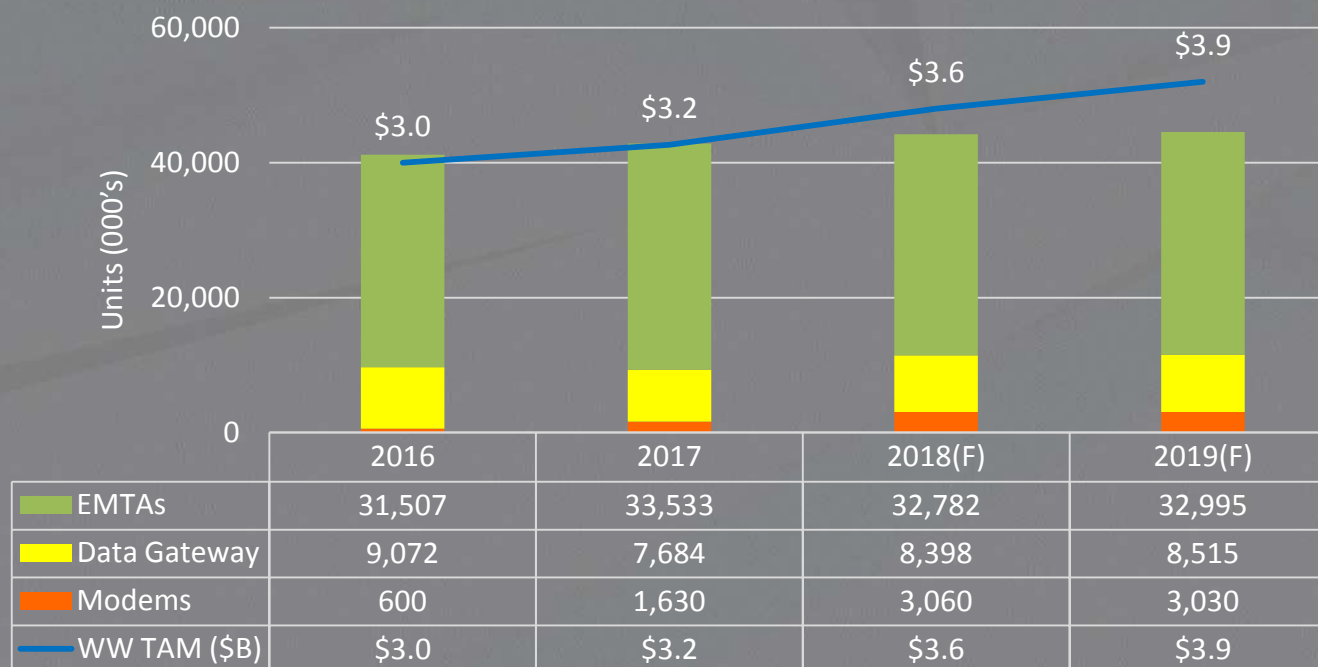
CPE MARKET TRENDS

- Market driven by technology migration period
 - Global operators increase investment in broadband & video
 - Demand for gigabit-capable broadband services accelerating
 - Wi-Fi refresh from 802.11ac to 802.11ax
 - UHD IP-STB -shift underway incorporating greater OTT options



WW Cable CPE Market Overview

WW Cable CPE



DOCSIS CPE market steady growth (CY16: \$3.0B CY19(F): \$3.9B)
CBN Products shipping to 25 countries,
WW Cable CPE market share 10%

Technologies Evolution

DOCSIS 3.1



Source: HIS, SNL Kagan, F&S, ABI, Ovum, and TBR

4K IP-STB



Source: OVUM, 2017

802.11ax Wi-Fi



Source: Source: Strategy Analytics, Wi-Fi Alliance, ABI Research, 2018



Technology upgrades drive the market growth

Operation & Financial Results

Operation Evolution

Leading the Evolution



2009 – 2015

EMS/OEM/ODM

Designs manufactures product



2015 – 2018

CBN Branding

Smart Cable Gateway

Footprint 25 countries

Transform to Branding Company Successfully

- Start from smart cable gateway to diversify into smart devices
- Europe market leading position (>40% market share)
- WW No.1 MSO award of Best Product & Service Quality



2018 ➡

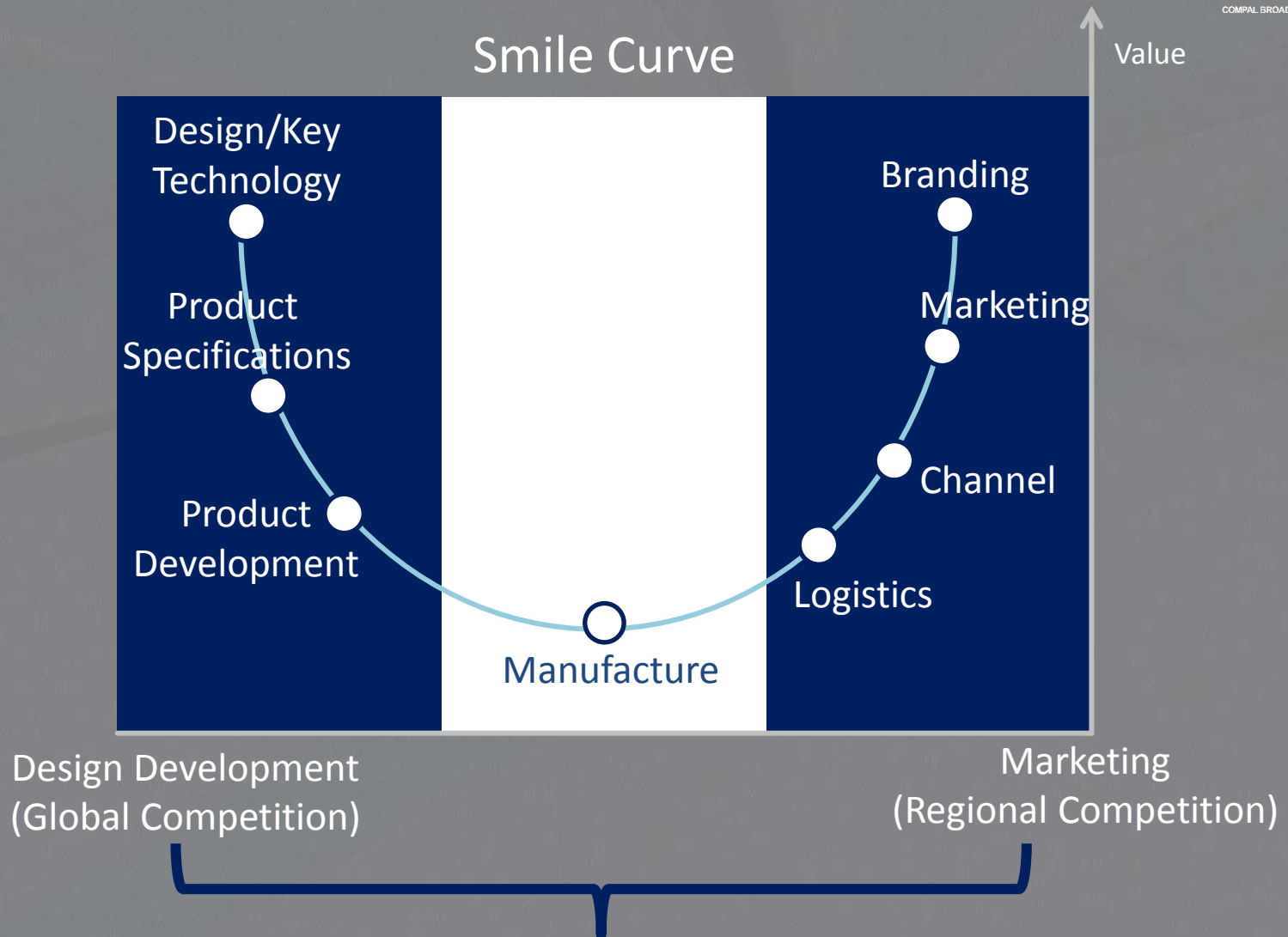
NEXT Generation

Gigabit Broadband
Smart home

2018 - beyond :

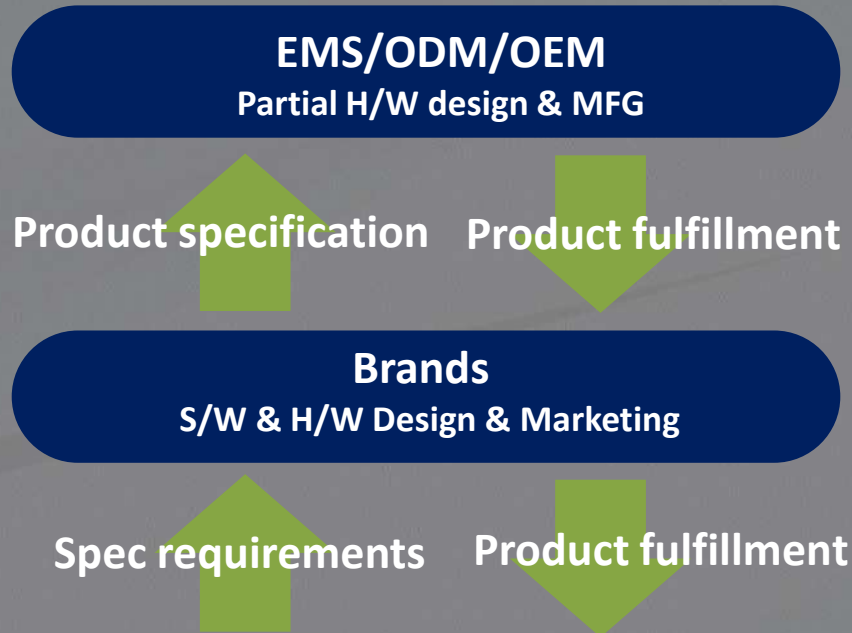
- Continue market expanding
- Focus on Gigabit Broadband & Smart Home markets

Operation Focus and Value



Competitive Advantage – Business Model

Traditional EMS/ODM/OEM Model

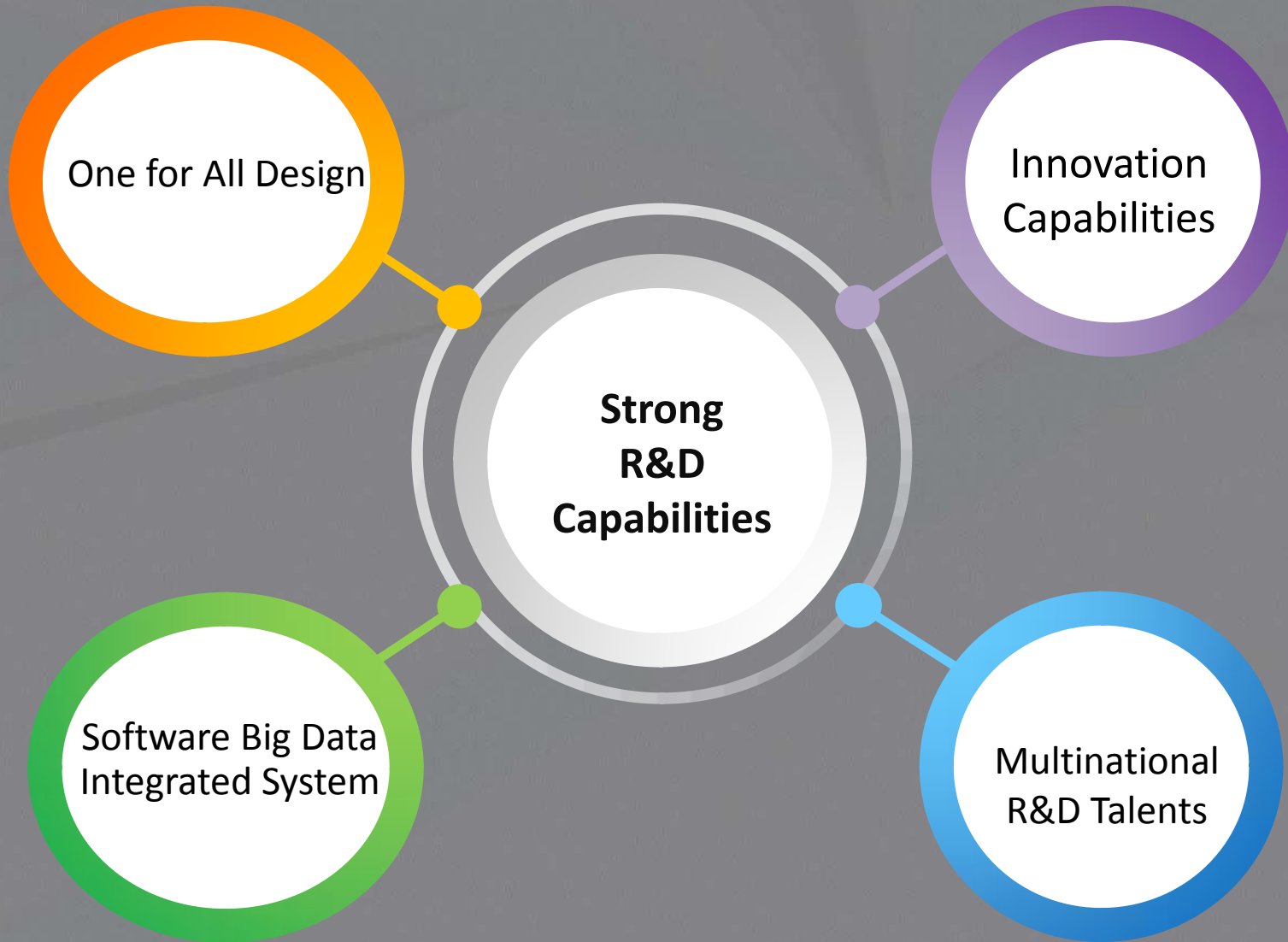


CBN “Go Direct” Model



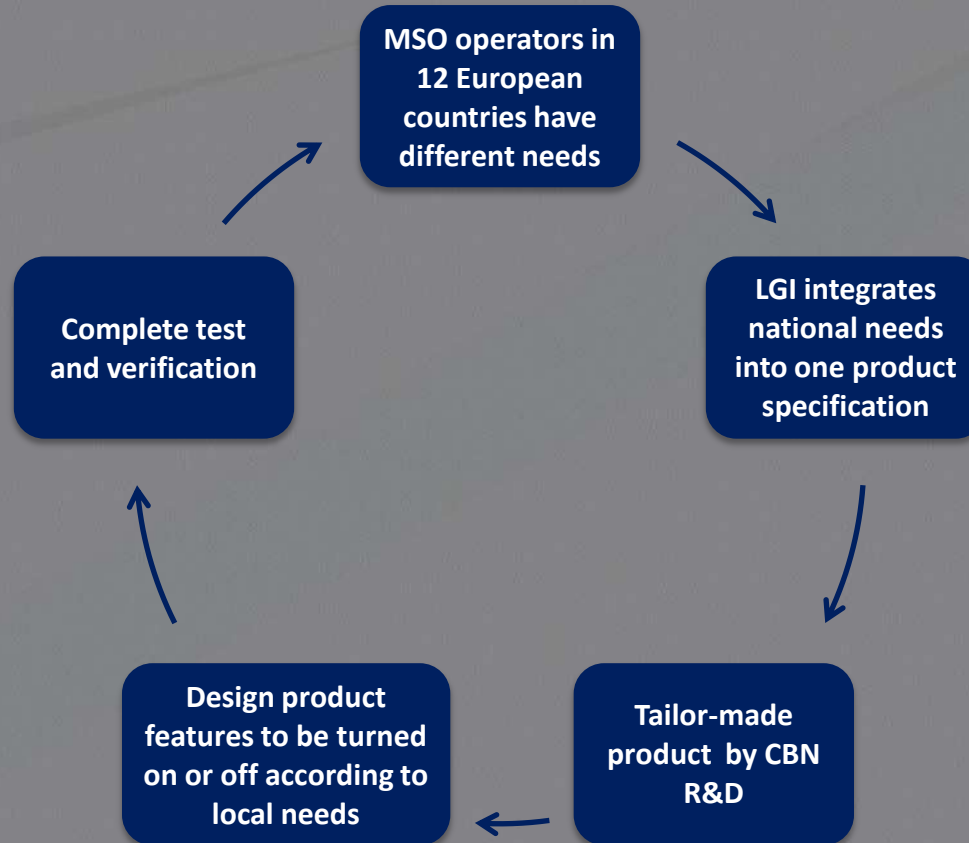
- Direct support and total solution
- Eliminating the inefficiencies & costs of traditional EMS/ODM/OEM models

Competitive Advantage – R&D Capabilities



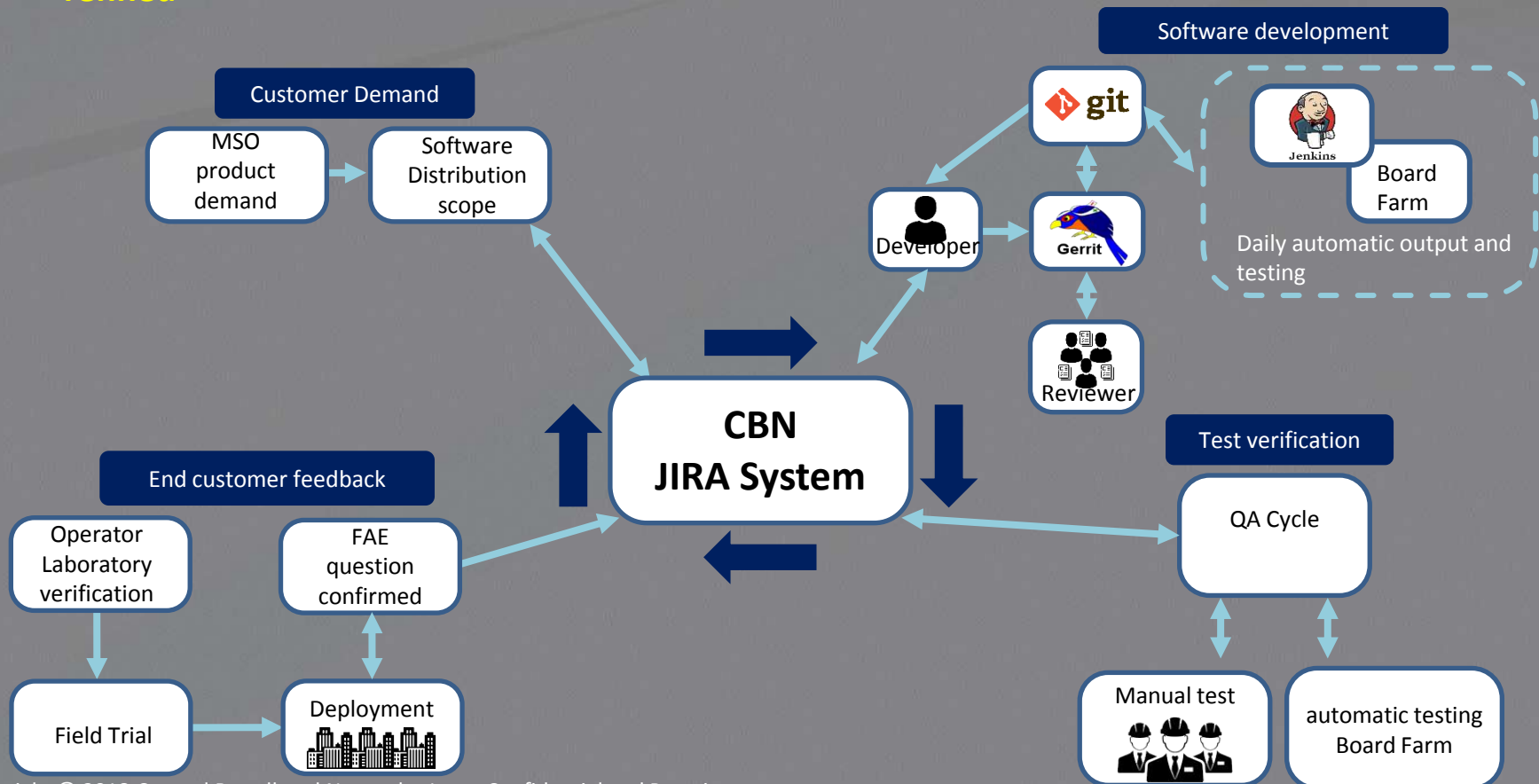
Competitive Advantage – One for All Design

- Launched the first and only Smart Cable Gateway on the market that meets the needs of 12 European countries
- One Smart Cable Gateway can be sold to 12 countries, providing MSO economies of scale and significantly reducing MSO operating costs
- **Tailor-made product service to deepen the customer's adhesion to CBN and establish the entry barrier**



Competitive Advantage – Software Big Data Integrated System

- Integrating JIRA, Git, Gerrit, Jenkins, Board Farm and other tools and Agile development methods, CBN has established a smooth software design and platform to quickly develop, verify and distribute software according to customer needs
- Through the collection of questions from millions of user-side product feedback, a complete and valuable big data database was built on the JIRA system, and the more robust products were refined



Competitive Advantage – Multinational R&D Talents



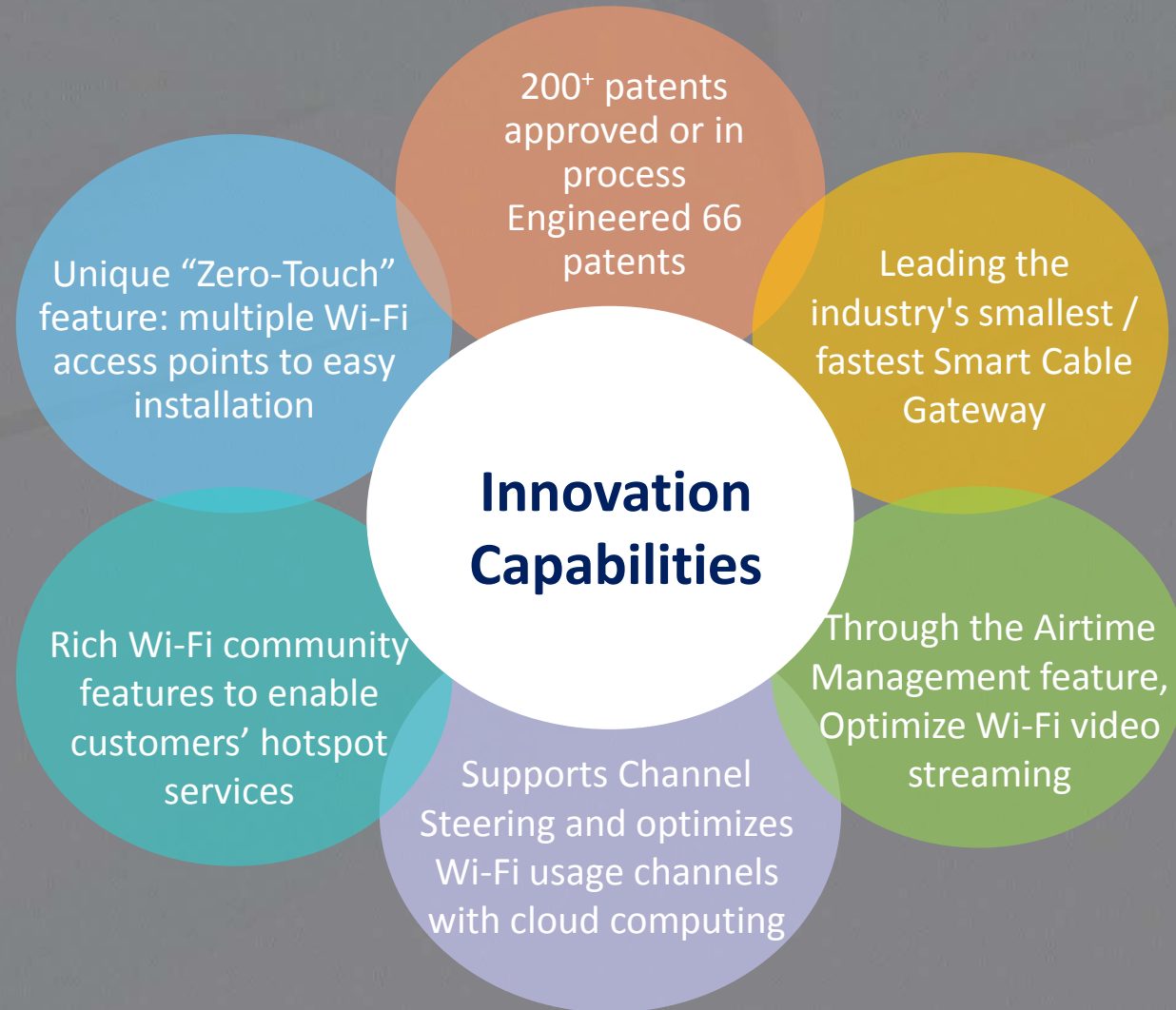
☆ Taiwan R&D team

- Platform development
- Software/hardware integration
- Architecture design
- Test cases development and product integration automation test programs

☆ Overseas R&D team

- Terminal applications
- Customer technical support

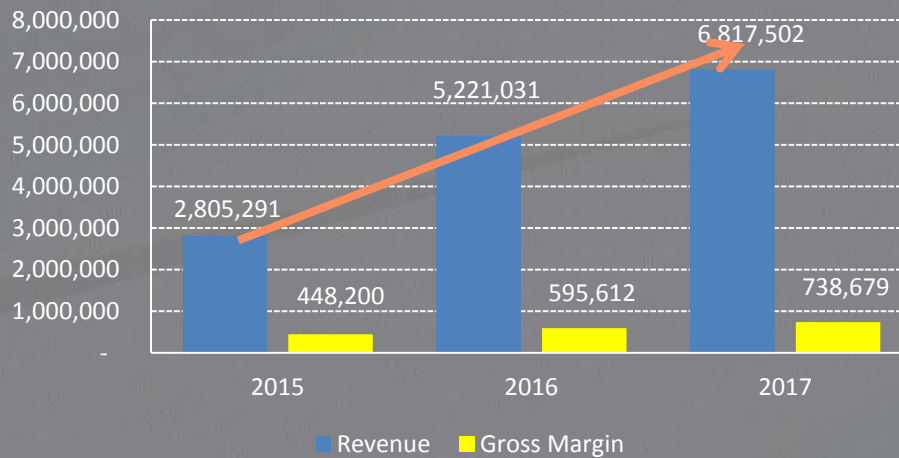
Competitive Advantage – Innovation Capabilities



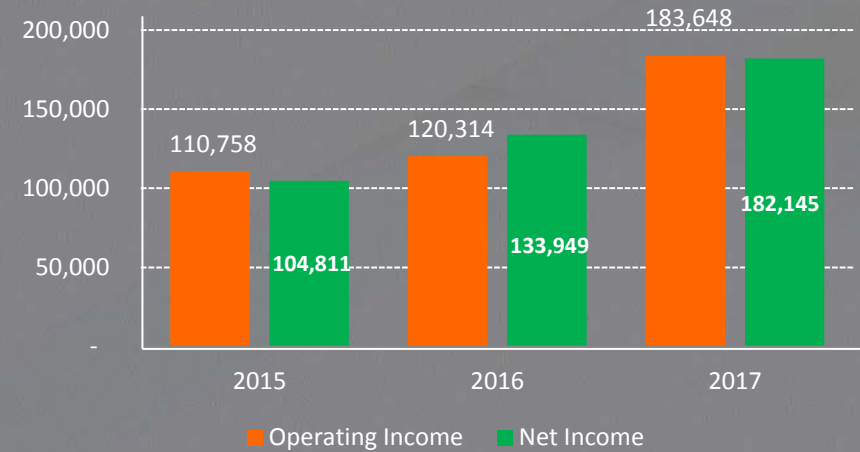
Financial Results

NT\$ Thousands

Revenue & Gross margin growth



Net Profit growth



30% YOY revenue growth rate in 2015 — 2017

EPS & Dividend

Year	Capital (NT\$ K)	Dividend policy(NT\$)			
		EPS	Cash Dividend	Stock Dividend	Total Dividend
2014	250,796	10.06	3	3	6
2015	330,033	3.18	2	0	2
2016	532,525	4.01(Note)	0.5	1	1.5
2017	603,513	3.03	1.8	0	1.8
2018 1H	604,897	1.80	—	—	—

Note: CBN processed a capital increased by cash of 20,000 shares at the end of December 2016, and basic earnings per share was NT\$ 4.01; if the capital increased by cash to be at the beginning of 2016, the earnings per share will be NT\$ 2.52

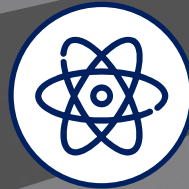
Strategy for Growth

Strategy for Growth



Continue the Smart Gateway momentum

- Deepening the leading position in the EU market
- Accelerate the expansion into the Americas and other markets
- Enhance technical capabilities and value-added services to solid CBN's values in the customer ecosystem



Product portfolio expansion to grow the addressable markets

- 802.11ax Wi-Fi Extender
- UHD IP STB (4K/8K)
- Smart Home Device
- 5G Gateway



Strengthen competitive advantage through vertical integration

- Cloud platform
- Smart Home Ecosystem Solution

2018 – 2020 Product Portfolio



Smart CPE Devices

Smart Cable Gateway



Wi-Fi Extender



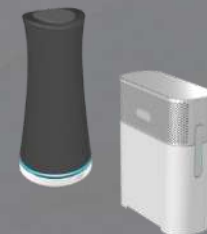
UHD IP-STB
(4K/8K)



Smart Home Device



5G Gateway



Technology Solutions

DOCSIS 3.0

DOCSIS 3.1

FDX DOCSIS 3.1

PacketCable 2.0



NB-IOT



Software



Summary



Deeply entrenched the leading position in the EU cable CPE market



Significant growth opportunity with increasingly diversified customers



Well positioned to benefit from the technology update cycle



Expanded addressable market with product portfolio expansions



Growing profitability with stable dividend policy to shareholders

Q & A





THANK YOU