



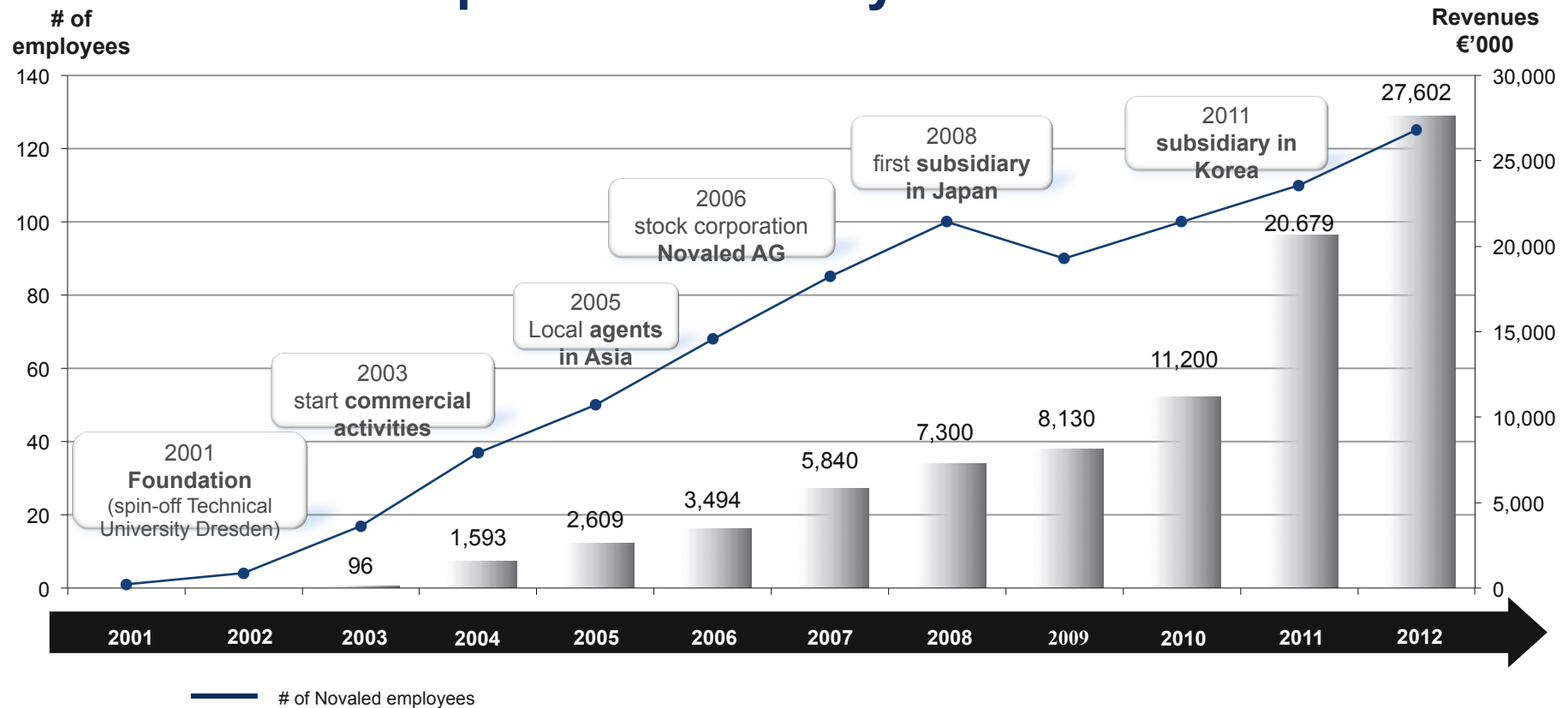
NOVALED: The OLED Growth Story

Harry Böhme
CFO, Novaled AG

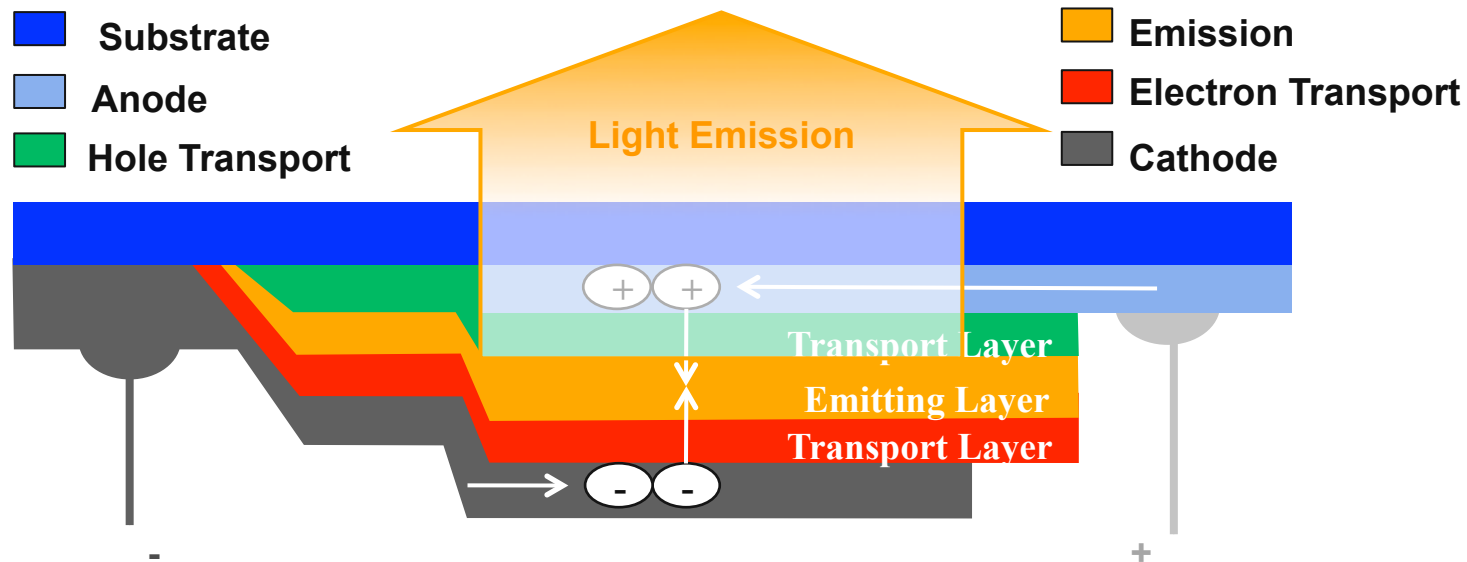
Novaled at a Glance

Foundation and Legal form	<ul style="list-style-type: none">› Founded 2001 by Prof. Karl Leo et. al. as a spin-off of Fraunhofer Society and TU Dresden to commercialize OLED technology› Stock corporation since March 2006
Today	<ul style="list-style-type: none">› A leading provider of customized OLED stack solutions based on the Novaled PIN® technology and material
Turnover and Financing	<ul style="list-style-type: none">› 2012 Revenues: €27,6 Mio (2011: €20,7 Mio)› Profitable since 2011; Venture Capital funded, 3rd round of financing in 2009
IP	<ul style="list-style-type: none">› > 500 patents and patent applications
Personnel	<ul style="list-style-type: none">› A business driven organization with multi-skills in Physics, Optics & Chemistry; Assembly & Manufacturing; Marketing & Sales› Headcount: >135 (2013)
Offices	<ul style="list-style-type: none">› HQ: Dresden, with offices in Korea and Japan

Novaled - A Unique Growth Story



A little bit of Technology: The Standard OLED Stack....



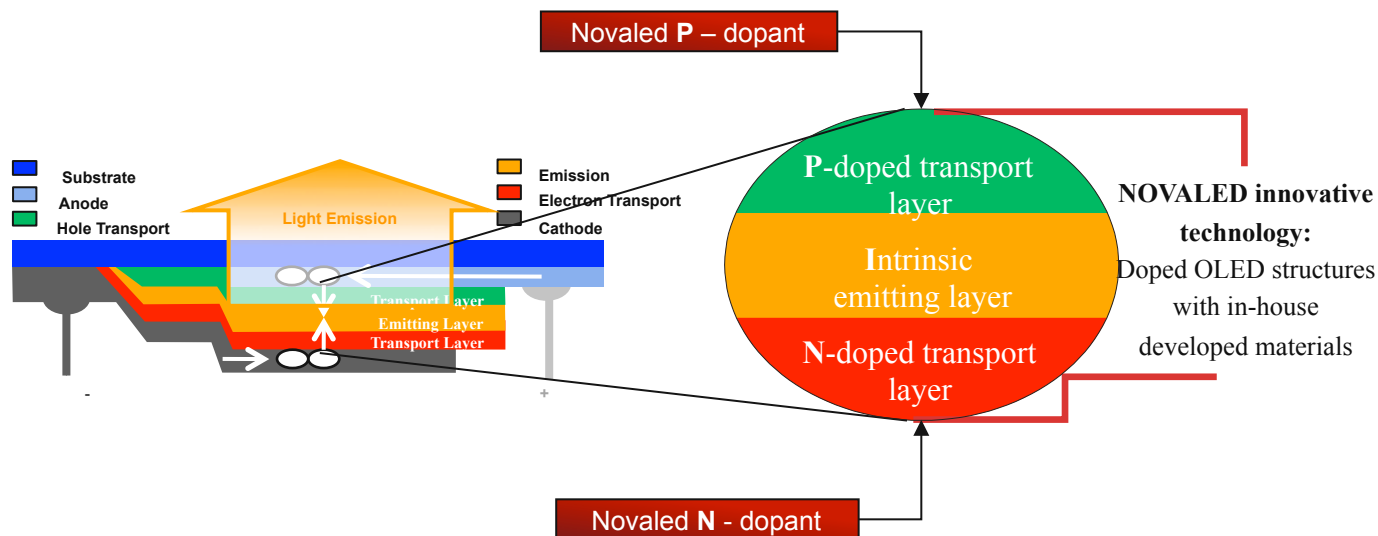
...and what we make of it:

Improved Power Efficiency by Voltage Minimization through PIN approach and Novaled materials

Standard OLED Stack

Novaled PIN OLED® Technology

**Novaled PIN OLED®
Technology Benefits**

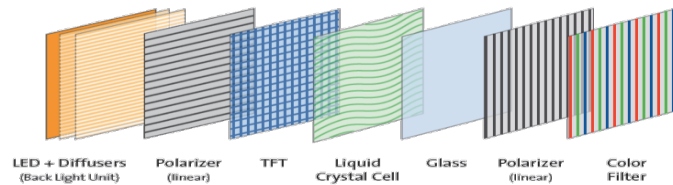


- » Extremely low operating voltage
- » Easy integration on all substrates
- » Very high power Efficiency and long lifetime
- » Freedom in OLED design
- » well adjusted thickness of transport layers without Ohmic losses

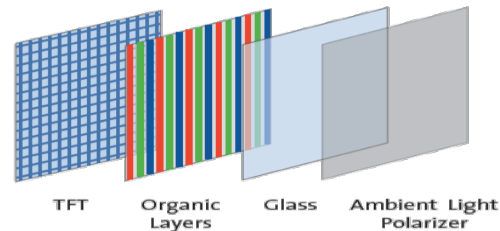
OLEDs Are Superior to Existing Display Technologies

Display Components

LCD



OLED

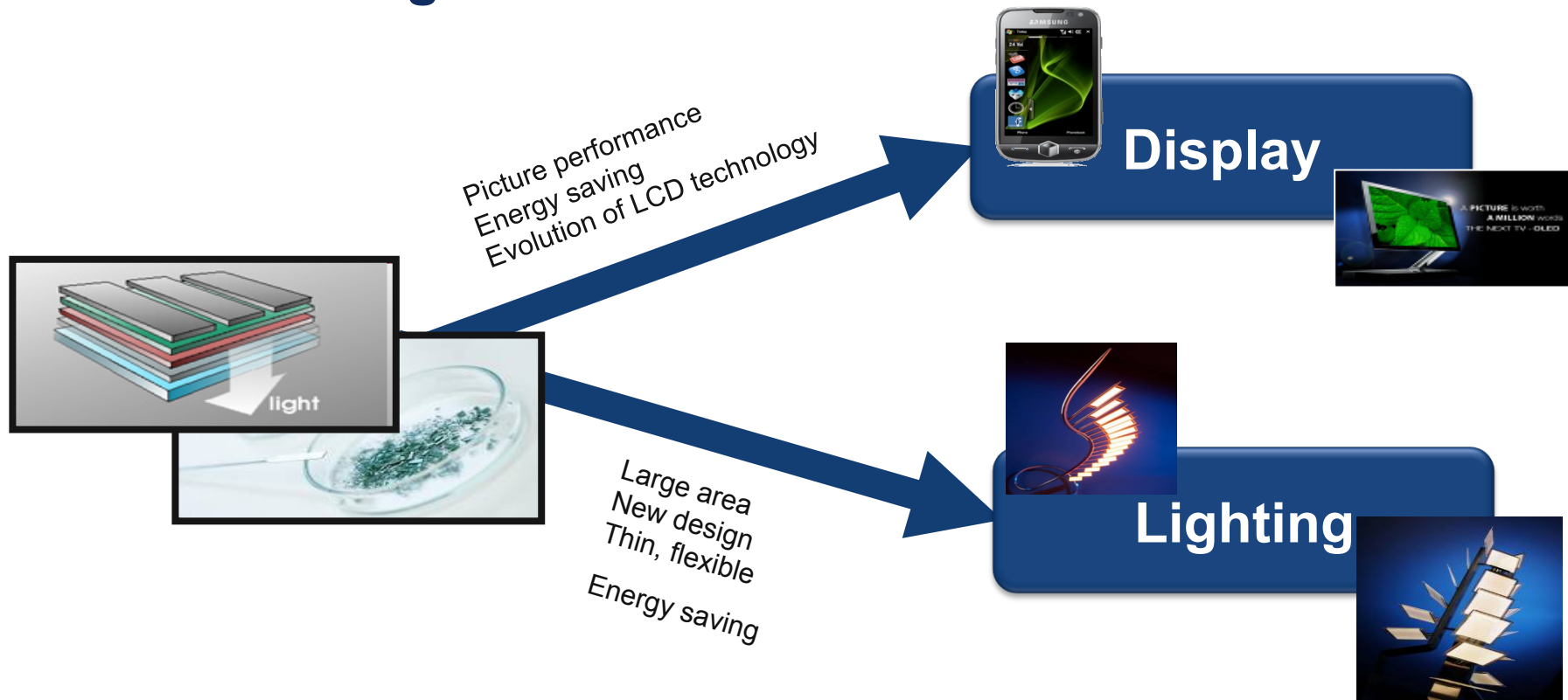


OLED vs. LCD – Key Benefits

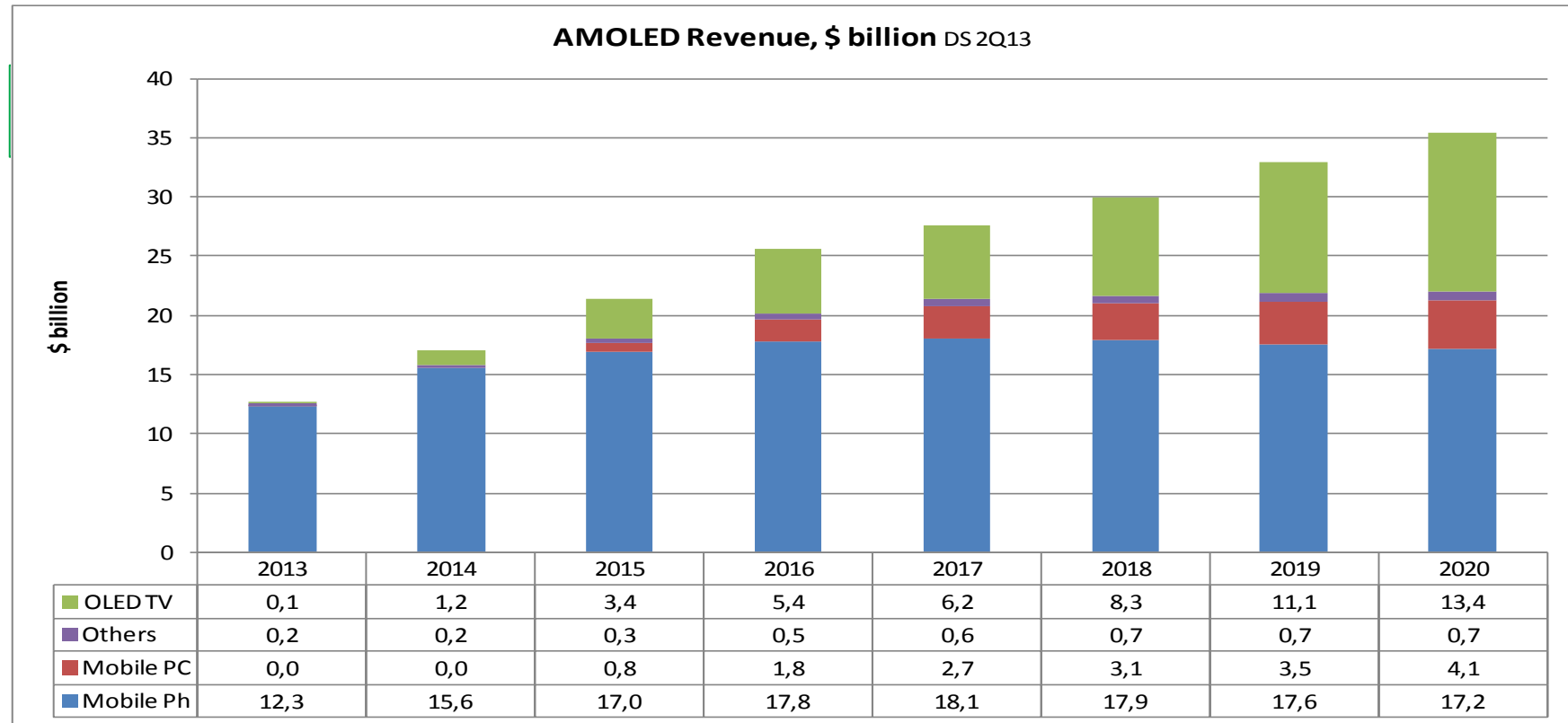
- ✓ Superior picture
- ✓ Lower power consumption
- ✓ Increased product lifetime
- ✓ Thinner form factor
- ✓ Faster response time – ideal for 3D TV
- ✓ Simpler manufacturing

Evolutionary technology for LCD manufacturers

OLED: Addressing Two Markets

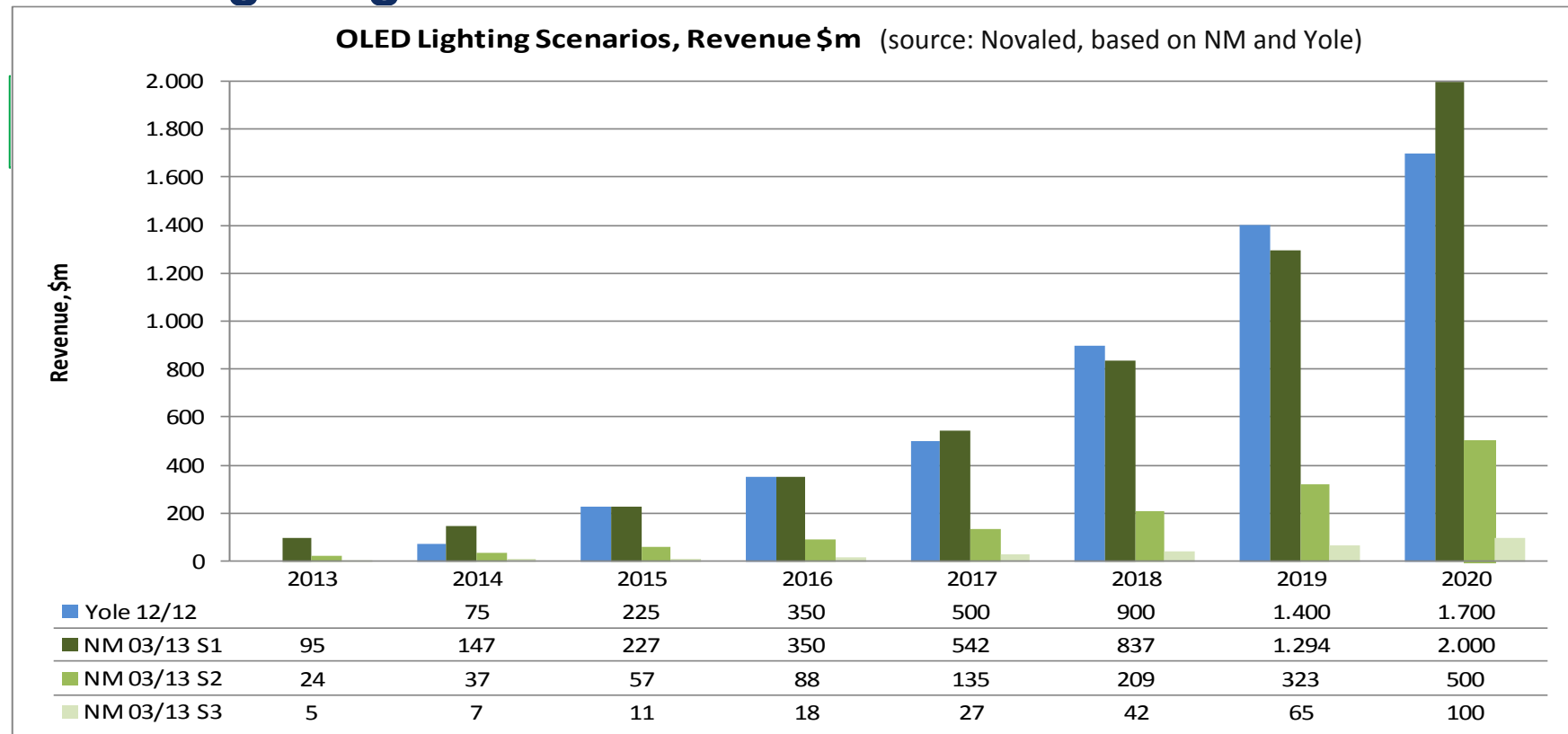


AMOLED revenue – growing ~3x to over \$35 bn by 2020

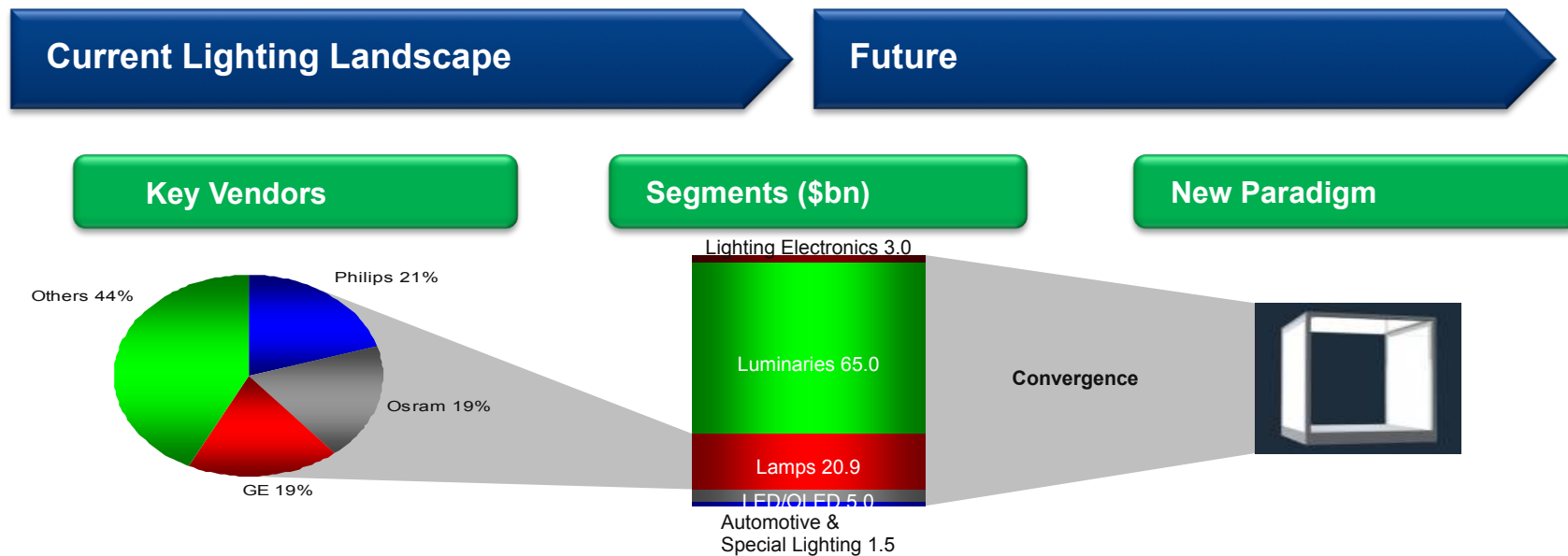




OLED Lighting – Revenue



OLED will Modify the Lighting Value Chain



The Exit

- On August 9, 2013, Cheil Industries, Samsung Electronics, Samsung Ventures, the current Shareholders and Novaled AG signed an Agreement for the sale of the majority of shares in Novaled AG to Cheil Industries and Samsung Electronics
- Closing is expected on Oct. 15, 2013
- The transaction values Novaled at a total enterprise value of €260m including an earn-out-component of €30m



Success Factors

1.) The Team

- 135 young professionals, highly motivated and multi-skilled:
- a combination of know-how in physics and chemistry,
- supported by lean and efficient teams in Marketing and Sales, IP and Business Administration.



Success Factors

2.) The Investors

Leading German and French Venture Capital Companies:



eCAPITAL

Omnes Capital



Techno Start

TechFund



BFH

CDC Innovation



Fraunhofer

Technicolor



KfW

Dresden Fonds

Accompanied in 2011 by Samsung Ventures, who acquired a 10% stake.



Success Factors

3.) Industry Focus

- A strong and early focus on potential manufacturing customers,
- combined with a strong quality management approach (ISO-certified, Member of EFQM).



Success Factors

4.) Exposure to the Financial Community

- High frequency of speeches at national and international financial and technical conferences,
- recognised by numerous awards



Success Factors

5.) Preparation of IPO at Nasdaq

- Since beginning of 2012, the company prepared for an IPO at the NASDAQ as one exit route for existing investors



- **Pros:**
 - High attention from potential investors
 - Preparation process created higher levels of professionalism
- **Con:**
 - Expensive



Creating the OLED Revolution



Thank you for your attention !

Novaled AG

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