

A microscopic view of a semiconductor chip, likely a microprocessor, with a magnifying glass focusing on a specific area. The chip is green with various components and traces. The background is a blue-tinted image of a circuit board.

MagnaChip Semiconductor (MX)

MX 3.0:
Profitable Growth with Pure-Play Product Business

MagnaChip 

June 2020

Forward-Looking Statements

Information in this presentation regarding MagnaChip's forecasts, business outlook, expectations and beliefs are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that involve risks and uncertainties. All forward-looking statements included or incorporated by reference in this presentation, including expectations about estimated historical or future operating results, business strategies and plans, future growth and revenue opportunities from new and existing products and customers, and the timing and extent of future revenue contributions by our products and businesses, are based upon information available to MagnaChip as of the date of this presentation, which may change, and we assume no obligation to update any such forward-looking statements. These statements are not guarantees of future performance, and actual results could differ materially from our current expectations. Factors that could cause or contribute to such differences include uncertainties related to market conditions or general economic conditions, such as those caused by or related to the COVID-19 outbreak, recessions, economic instability or civil unrest, the impact of competitive products and pricing, timely design acceptance by our customers, timely introduction of new products and technologies, ability to ramp new products into volume production, industry wide shifts in supply and demand for semiconductor products, industry and/or company overcapacity, effective and cost efficient utilization of manufacturing capacity, financial stability in foreign markets and the impact of foreign exchange rates, unanticipated costs and expenses or the inability to identify expenses which can be eliminated, compliance with U.S. and international trade and export laws and regulations by us, our customers and our distributors, the risk that the pending sale of our Foundry business and the Fab 4 facility to Magnus Semiconductor, LLC or one of its wholly owned subsidiaries is not consummated according to our current expectations or at all, public health issues, and other business interruptions that could disrupt supply or delivery of, or demand for, MagnaChip's products, including uncertainties regarding the impacts of the COVID-19 outbreak that may result in factory closures, reduced workforces, scarcity of raw materials and goods produced in affected locations, as well as reduced consumer and business spending affecting demand for MagnaChip's products due to government and private sector mandatory business closures, travel restrictions or the like to prevent the spread of disease and other risks detailed from time to time in MagnaChip's filings with the SEC, including our Form 10-K filed on February 21, 2020 and our Form 10-Q filed on May 11, 2020 (including that the impact of the COVID-19 pandemic may also exacerbate the risks discussed therein), and subsequent registration statements, amendments or other reports that we may file from time to time with the SEC and/or make available on our website. MagnaChip assumes no obligation and does not intend to update the forward-looking statements provided, whether as a result of new information, future events or otherwise.

Information in this presentation does not take into effect the potential impact of the COVID-19 outbreak on MagnaChip's business operations, financial condition, plans, opportunities, expectations and future results due to the uncertainty regarding the magnitude, duration, and global reach of the situation. This presentation also includes references to certain non-GAAP financial measures. Management believes that non-GAAP financial measures, when viewed in conjunction with GAAP results, can provide a meaningful understanding of the factors and trends affecting MagnaChip's business and operations and assist in evaluating our core operating performance. However, such non-GAAP financial measures have limitations and should not be considered as a substitute for net income or as a better indicator of our operating performance than measures that are presented in accordance with GAAP. A reconciliation of GAAP results to non-GAAP results is included in this presentation.

MX: A Structurally Improved Company



Unlocking longer-term shareholder value by strategic re-positioning

- Pending sale of Foundry business & Fab 4 for approx. \$435M, consisting of \$344.7M in cash and the buyer's assumption of approx. \$90M of statutory severance liabilities
- Deal to close in September/October timeframe



Transformation into streamlined product company with focus on high-growth OLED Display and Premium Power product areas

- #1 independent supplier of OLED display drivers with strategic alignment with world's Top 2 OLED panel makers
- Portfolio of premium power business targeting high-growth markets



Growing business pipeline and solid execution to accelerate profitable growth

MX Transformation to Streamlined Product Company

Build Foundation for Growth 2015

- ✓ Portfolio optimization in OLED and Power

Accelerate Growth 2018

- ✓ OLED DDIC leadership
- ✓ Differentiation of Power products

Accelerate Profitable Growth 2020

- ✓ Align with attractive markets
- ✓ De-lever balance sheet
- ✓ Operational efficiency

Display

- At forefront of market trend
- 28 nm OLED leadership
- Strategic alignment with panel OEMs
- Product optimization: LCD reduction

**Double-digit
growth through
technology
leadership**

Power

- Automotive/EV market
- Smartphone battery FET
- IGBT & Super Junction launch
- Premium product development

Foundry

- 2015 ~ 2019: revenue increased by 25%
- 6" fab divestiture
- BCD/EEPROM expansion
- Customer diversification

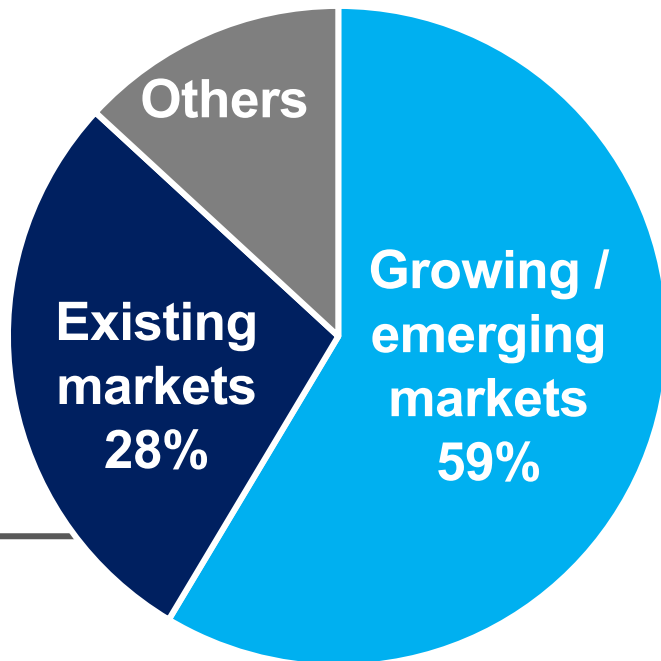
**Pending sale of
Foundry & Fab 4
for approx.
\$435M**

- Proceeds to be used to de-lever and strengthen B/S
- Pending sale expected to close Sep/Oct '20

Capitalizing on Attractive Market Opportunities

Semiconductor Market by Application

2024 = \$534 billion



- **Computing**
(Notebook, Monitor, etc.)
- **Consumer**
(LCD TV, Game, etc.)
- **OLED / Smartphones**
- **Automotive / Industrial**
- **Data Center Server / SSD**
- **Wearable / Virtual Reality**
- **IoT**

Source - OMDIA and MagnaChip estimates

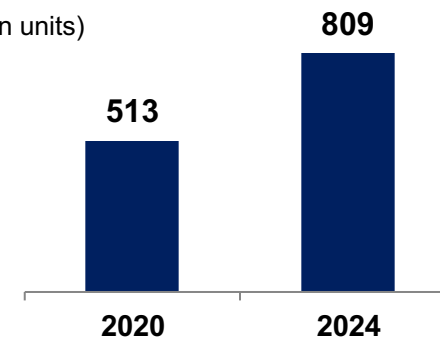
Growing / Emerging Markets

OLED Smartphone

(OLED display shipment)

(CAGR 12%)

(Million units)



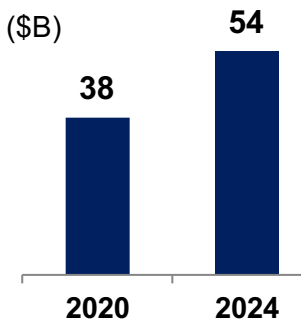
Source – OMDIA(IHS Markit), Apr'20

Automotive

(Semi. Revenue)

(CAGR 9%)

(\$B)



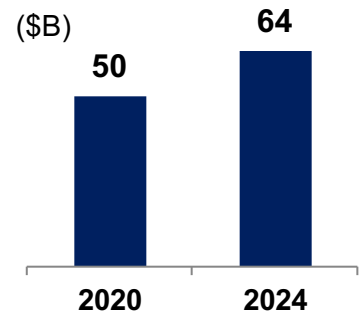
Source – OMDIA(IHS), May'20

Industrial

(Semi. Revenue)

(CAGR 6%)

(\$B)



Source – OMDIA(IHS), May'20

*Results based on OMDIA(IHS Markit), Technology Group, Pure play foundry market tracker, May 2020 and Small Medium Display Market Tracker, April 2020. Results are not an endorsement of MagnaChip Semiconductor. Any reliance on these results is at the third party's own risk. Visit technology.ihs.com for more details.

Strong Momentum in OLED Business



2015-2019 OLED revenue growth: 260%

2019 Display Revenue: \$309M
OLED Revenue: \$267M

Q1'20 Display Revenue: \$77.6M
OLED Revenue: \$69.7M

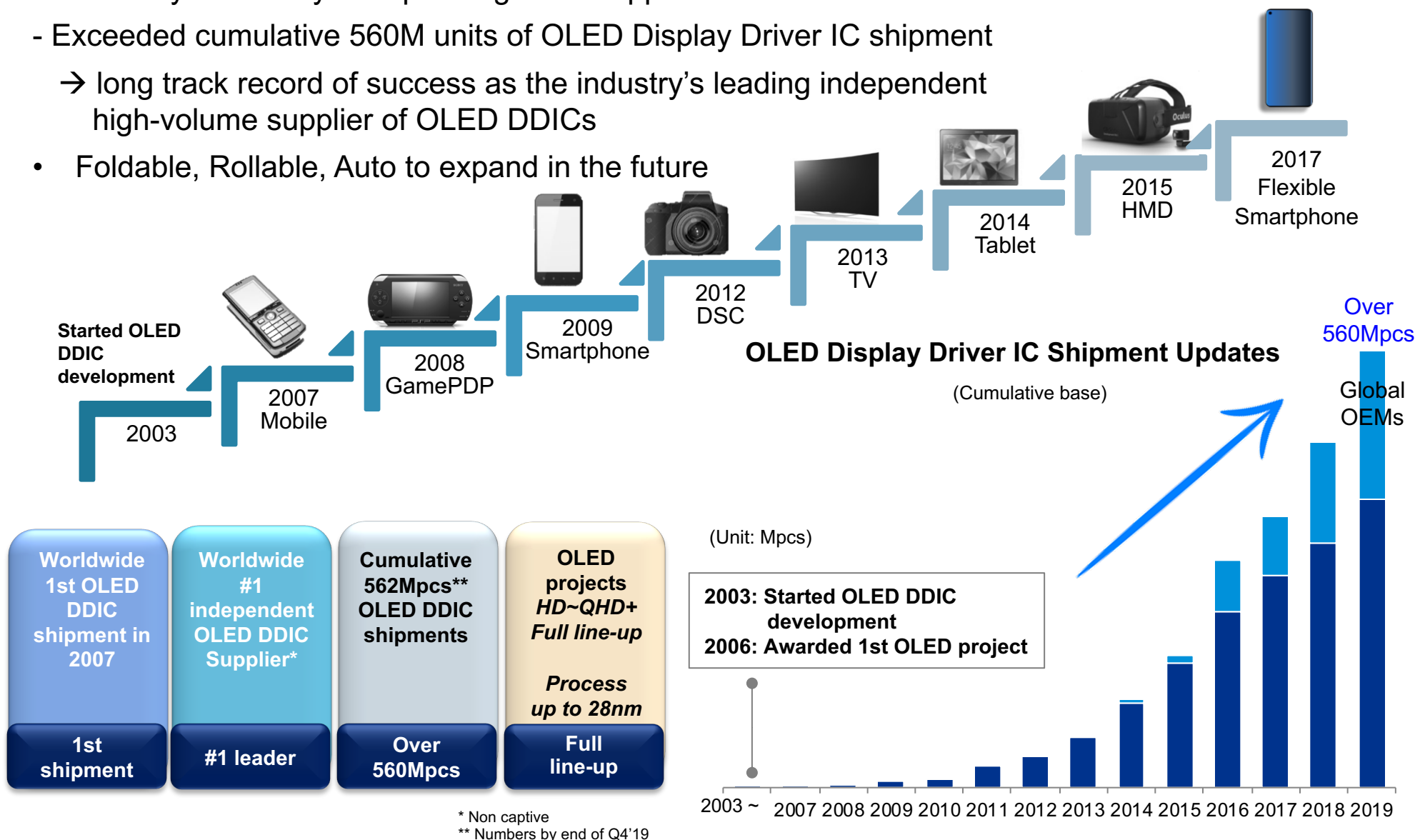
- Largest independent supplier of OLED display drivers
- Pioneer in 28nm OLED drivers with best power consumption and size in industry
- Favorable market trends: 5G, flexible OLED, OLED for automotive, MicroLED
- Q1'20 Highlights
 - 18 OLED smartphone production launches scheduled in 1H'20 (8 launched in Q1)
 - 14 new OLED DDIC design-wins in Q1, richer product portfolio with 16 OLED drivers
 - Flexible Chip-on-Plastic design-win in Q1 tripled from the number of design-wins in 2019
 - OLED for Automotive and MicroLED activities with target production of 1H'21

OLED is Everywhere and Evolves Over Time



First Adopter and Independent OLED Leader

- Over 17-year history of expanding OLED applications
- Exceeded cumulative 560M units of OLED Display Driver IC shipment
 - long track record of success as the industry's leading independent high-volume supplier of OLED DDICs
- Foldable, Rollable, Auto to expand in the future



Leading edge OLED DDICs for new 5G era: Display driver ICs with high frame rate

40nm, 120Hz

28nm, 144Hz

COP* DDIC
solution

COP / COF* DDIC
solution

28nm,
144Hz

Up to 144Hz frame rate supportable
OLED Driver ICs

- Supports up to 144Hz frame rate in FHD+ display
- Supports both COP and COF package solutions
- Enables Narrower Borders
- Support flexible displays
- Designed-win at top-tier Smartphone OEMs' high-end smartphone models
- Under mass production

40nm,
120Hz

Up to 120Hz frame rate supportable
OLED Driver ICs

- Supports up to 120Hz frame rate in FHD+ display
- Supports up to QHD+ resolution display
- Enables low BOM cost
- Designed-win at top-tier smartphone OEMs' high-end smartphone models
- Support flexible displays
- Under mass production

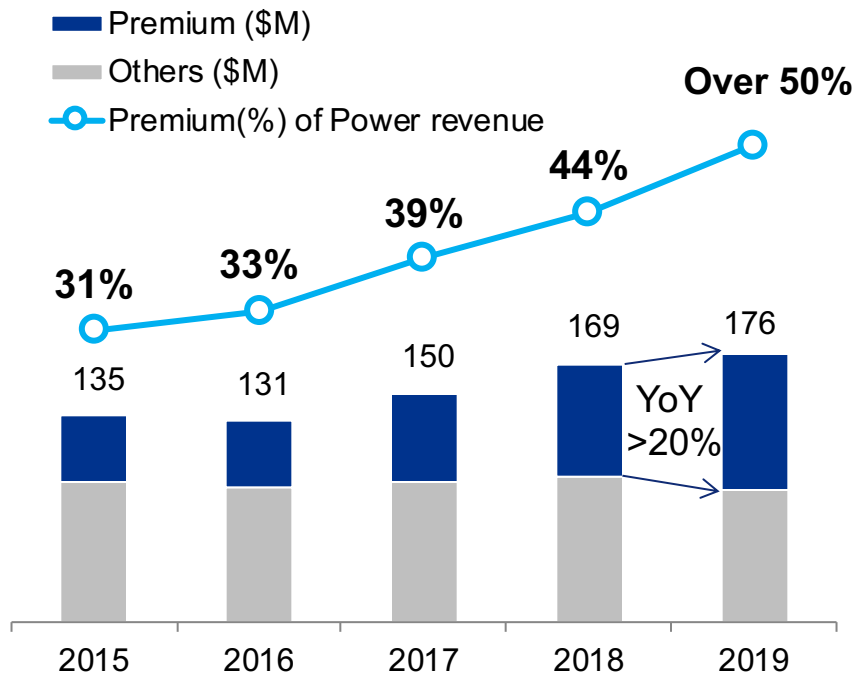
* COP: Chip-On-Plastic / COF : Chip-On-Film

Premium Power Semiconductor Opportunity

Power premium products

- **Super Junction MOSFET, IGBT and Power IC**
 - Advanced technology
 - Higher margin & value added products

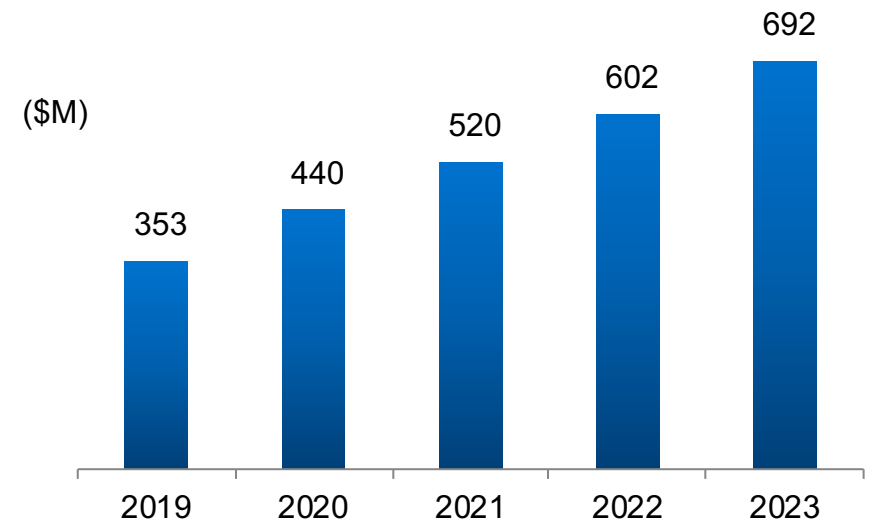
Net sales from premium products



IGBT forecast for xEVs

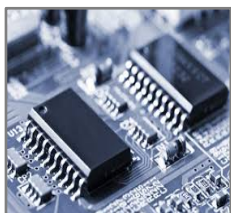
- **IGBT chips for EV application growth**
 - CAGR('19-'23): 18%
 - MX collaborated with major two automotive companies in Korea and China
 - 11 projects(IGBT/FRD chips) under development (MP target: xEV in 2022)

IGBT chip revenue forecast for Hybrid and EV



Source – IHS Markit, 2019

Premium Power Targeting EV Megatrend



2015-2019 Premium Power Revenue growth: 111%

2019 Power Revenue: \$176M

Premium Product: \$89M

Q1'20 Power Revenue: \$33.1M

Premium Product: \$18.7M

Power products portfolio



Power IC AC/DC

- LED BLU driver and LED lighting
- PFC IC / PWM IC
- LCD TV, lighting and SMPS



Power IC DC/DC

- PMIC and linear regulator for SSD
- LED driver for digital signage
- Mobile DC/DC



SJ MOS HV planar MOS

- 200V – 900V
- High performance & optimal R_g
- LCD TV, travel adapter, computing, lighting and Industrial



IGBT

- 650V / 1200V discrete IGBT
- Low $V_{ce(sat)}$, high speed & ruggedness
- Motor drive, solar, welding and consumer appliances



LV MOS MV MOS

- 12V – 150V
- SR MOS and battery protection MOS
- Battery pack, power tool and E-bike

- Moving into automotive, including EV: 10,000-hour qualification process well on track
- Mix improvement towards premium products: Super-Junction, IGBT and Power IC
- Leading provider of battery protection discrete semiconductor products
- Power revenue increased three consecutive years
- Q1'20 Highlights
 - Q1 revenue impacted by COVID-19 outbreak in China
 - Premium product mix increased to over 55%
 - Q2 power revenue to grow by double-digit percentage

A microscopic view of a circuit board with a magnifying glass. The image shows intricate circuitry, including various chips, capacitors, and resistors. A magnifying glass is positioned over the board, highlighting a specific area. The overall color scheme is blue and green, with a semi-transparent blue band across the middle containing the text.

Financial Summary

MagnaChip 

Q1 2020 Highlights



Solid results

- Revenue from total operations of \$197M came in high-end of guidance; continuing operations and discontinued operations revenue of \$120.5M and \$76.5M, respectively
- Non-GAAP Diluted EPS for total operations of \$0.24
- Cash of \$157M, highest in 7 years; Operating cash flow of \$21M



Strong OLED momentum continues

- 18 new smartphone display drivers to launch in 1H 2020; 9 in production in Q1
- 14 new OLED DDIC design wins in Q1, double from Q1'19



Power business was impacted by COVID-19 outbreak in China

- Double-digit growth in Q2 as China recovers








The foundry business and Fab 4 sale transaction remains on track

Solid Execution in Q1 2020

(In \$mil, except share data)	Three Months Ended March 31, 2020			Three Months Ended March 31, 2019		
	Continuing Operation	Discontinued Operation	Total	Continuing Operation	Discontinued Operation	Total
Revenue, standard product business	110.7	86.3	197.0	100.3	57.1	157.4
Revenue, transitional Fab 3	9.7	(9.7)		7.0	(7.0)	
Gross profit	29.1	20.7	49.8	19.0	3.7	22.7
Net Income (Loss)	1.1	7.5	8.6	(9.7)	(10.2)	(19.9)
Adj. EPS - Diluted	0.03	0.21	0.24	(0.28)	(0.30)	(0.58)
Adj. EBITDA	9.9	13.2	23.1	(1.3)	(4.4)	(5.7)
Cash Balance			157.3			151.7
Op Cash Flow			21.1			(11.7)
Free Cash Flow			17.7			(22.9)

- Foundry Service Group is accounted for as a discontinued operation beginning Q1'20.
- Until the deal closes, continuing operation will absorb 100% general corporate overhead: legal, audit, consulting service fees, interest expenses and foreign currency gain/loss in connection with certain inter-company long-term loans
- Discontinued operation's assets and liabilities shown as held-for-sale on balance sheet
- Transitional Fab 3 foundry services are recorded at cost in both continuing and discontinued operations, eliminating sales & costs when combined together, resulting in no margin

Transformation Accelerates Profitable Growth

-  Robust and sustainable revenue growth through focused Product R&D
-  Right-sizing opportunity after ~1,500 employees transferred to buyer upon closing
-  Adjusted operating income to reach 10% in near/mid-term
-  De-lever and strengthen the balance sheet
-  \$21 million in interest expenses saving in near term, improving net income

New Exciting MX 3.0 Phase Begins Soon

Thank You

Appendix: Detailed Financial Summary

(In millions of US dollars, except share data)	Three Months Ended March 31, 2020			Three Months Ended March 31, 2019		
	Continuing Operations	Discontinued Operations	Combined	Continuing Operations	Discontinued Operations	Combined
Revenues:						
Net sales – standard products business	\$ 110.7	\$ 86.3	\$ 197.0	\$ 100.3	\$ 57.1	\$ 157.4
Net sales – transitional Fab 3 foundry services	9.7	(9.7)	—	7.0	(7.0)	—
Total revenues	120.5	76.5	197.0	107.3	50.1	157.4
Cost of sales:						
Cost of sales – standard products business	81.6	65.6	147.2	81.2	53.4	134.7
Cost of sales – transitional Fab 3 foundry services	9.7	(9.7)	—	7.0	(7.0)	—
Total cost of sales	91.3	55.8	147.2	88.2	46.4	134.7
Gross profit	29.1	20.7	49.8	19.0	3.7	22.7
Net income (loss)	\$ (31.1)	\$ 7.3	\$ (23.7)	(21.6)	\$ (12.6)	\$ (34.1)
Adjusted net income (loss)	\$ 1.1	\$ 7.5	\$ 8.6	\$ (9.7)	(10.2)	\$ (19.9)
Adjusted net income (loss) per share – basic	\$ 0.03	\$ 0.21	\$ 0.25	\$ (0.28)	(0.30)	\$ (0.58)
Adjusted net income (loss) per share – diluted	\$ 0.03	\$ 0.21	\$ 0.24	\$ (0.28)	(0.30)	\$ (0.58)
Operating cash flow			\$ 21.1			\$ (11.7)
Free cash flow			17.7			(22.9)
	As of March 31, 2020			As of March 31, 2019		
Cash and cash equivalents			\$ 157.3			\$ 105.8

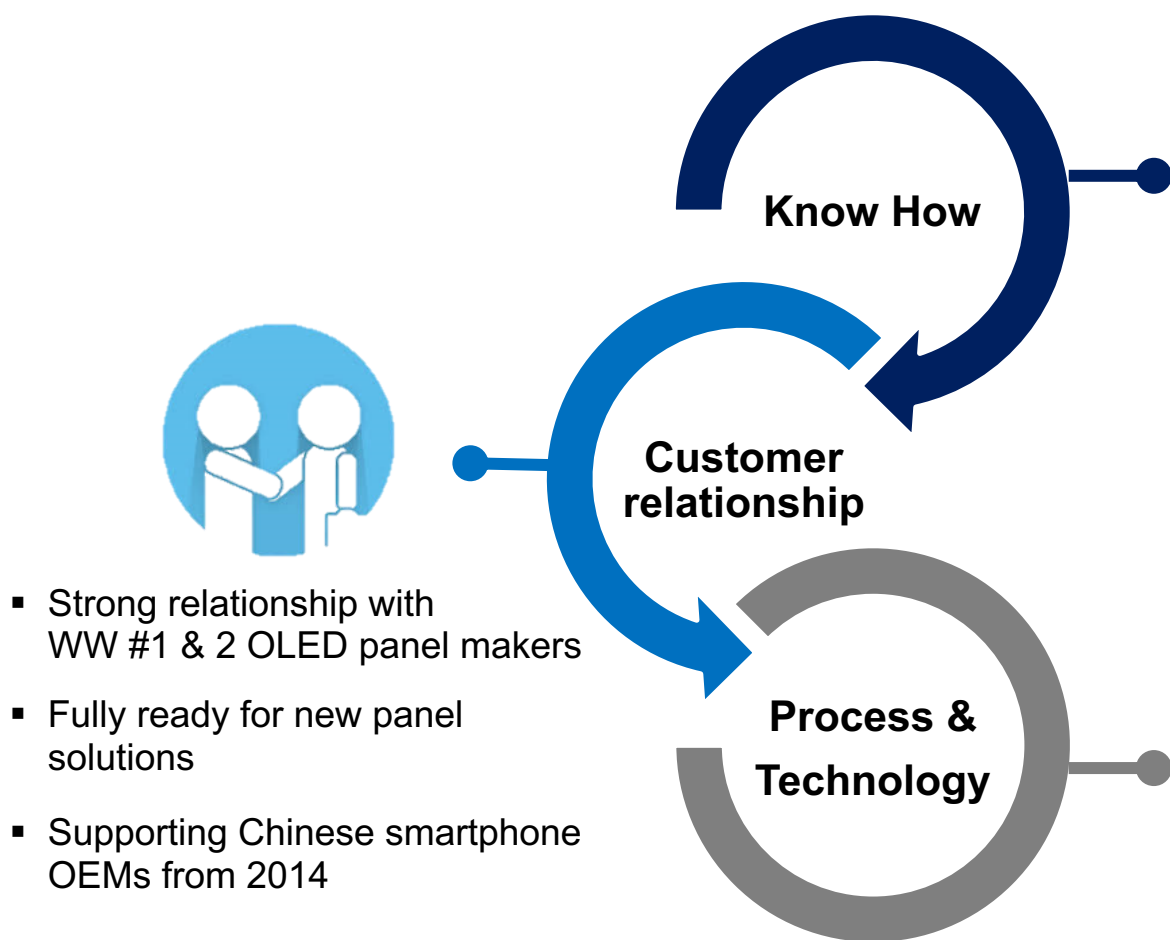
Appendix: Reconciliation of Adjusted EBITDA

(In millions of US dollars)	Three Months Ended March 31, 2020			Three Months Ended March 31, 2019		
	Continuing Operations	Discontinued Operations	Combined	Continuing Operations	Discontinued Operations	Combined
Net Income (Loss)	\$ (31.1)	\$ 7.3	\$ (23.7)	\$ (21.6)	\$ (12.6)	\$ (34.1)
Interest expense, net	4.9	—	4.9	5.1	—	5.1
Income tax expense	1.3	0.4	1.7	0.8	0.0	0.8
Depreciation and amortization	2.6	5.4	7.9	2.6	5.8	8.3
EBITDA	(22.3)	13.1	(9.2)	(13.1)	(6.8)	(19.9)
Adjustments						
Restructuring and other charges	—	2.1	2.1	—	2.9	2.9
Equity-based compensation expense	0.8	0.1	0.9	0.6	0.1	0.7
Foreign currency loss (gain), net	31.0	(2.1)	28.9	10.6	(0.6)	10.0
Derivative valuation loss (gain), net	(0.1)	—	(0.1)	0.1	—	0.1
Loss on early extinguishment of long-term borrowings, net	—	—	—	0.0	—	0.0
Others	0.6	—	0.6	0.6	—	0.6
Adjusted EBITDA	\$ 9.9	\$ 13.2	\$ 23.1	\$ (1.3)	\$ (4.4)	\$ (5.7)

Appendix: Reconciliation of Adj Net Income (Loss)

(In millions of US dollars, except share data)	Three Months Ended March 31, 2020			Three Months Ended March 31, 2019		
	Continuing Operations	Discontinued Operations	Combined	Continuing Operations	Discontinued Operations	Combined
Net Income (Loss)	\$ (31.1)	\$ 7.3	\$ (23.7)	\$ (21.6)	\$ (12.6)	\$ (34.1)
Adjustments						
Restructuring and other charges	—	2.1	2.1	—	2.9	2.9
Equity-based compensation expense	0.8	0.1	0.9	0.6	0.1	0.7
Foreign currency loss (gain), net	31.0	(2.1)	28.9	10.6	(0.6)	10.0
Derivative valuation loss (gain), net	(0.1)	—	(0.1)	0.1	—	0.1
Loss on early extinguishment of long-term borrowings, net	—	—	—	0.0	—	0.0
Others	0.6	—	0.6	0.6	—	0.6
Adjusted Net Income (Loss)	\$ 1.1	\$ 7.5	\$ 8.6	\$ (9.7)	\$ (10.2)	\$ (19.9)
Adjusted Net Income (Loss) per share – basic	\$ 0.03	\$ 0.21	\$ 0.25	\$ (0.28)	\$ (0.30)	\$ (0.58)
Adjusted Net Income (Loss) per share – diluted	\$ 0.03	\$ 0.21	\$ 0.24	\$ (0.28)	\$ (0.30)	\$ (0.58)
Weighted average number of shares – basic	34,893,157	34,893,157	34,893,157	34,194,878	34,194,878	34,194,878
Weighted average number of shares – diluted	35,883,200	35,883,200	35,883,200	34,194,878	34,194,878	34,194,878

Appendix: OLED Key takeaways



- Over 17 years of know-how for OLED DDIC development and process technology (Since 2003)
- MX's OLED DDI sales have increased (+260% growth, 2015 ~ 2019)
- Worldwide #1 independent OLED DDIC supplier (Exceeded 560Mpcs)
- First mover in the OLED driver IC industry
- MX design and IP are optimized for OLED
- Own specialized OLED process technologies and proprietary IPs
- OLED optimized low power and smaller die size
- Smallest OLED DDIC cell in the market
- Advanced OLED oriented process (55nm, 40nm, 28nm and below)
- 1st independent supplier to develop and start mass production of 28nm OLED DDIC product (Q2'19~)