



Universal Display Corporation

**2017 Corporate
Responsibility Report**



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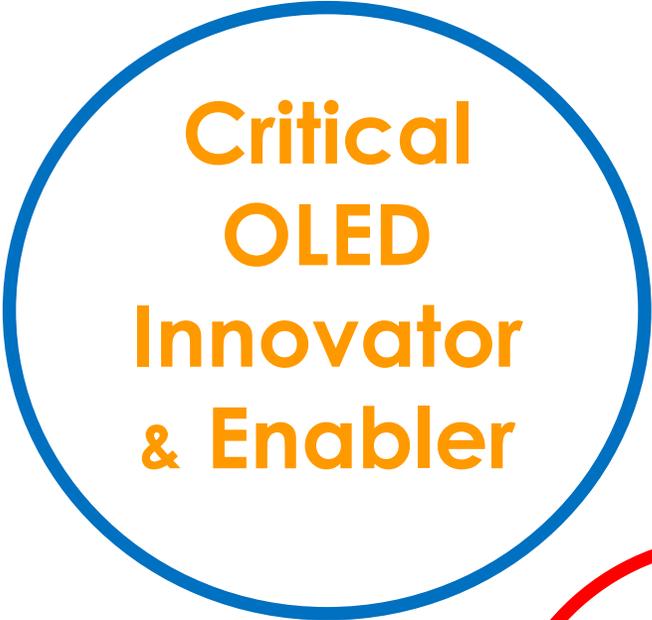
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Our Company



Universal Display Corporation (UDC)



**Critical
OLED
Innovator
& Enabler**



**OLED Materials
Supplier & IP
Licensor**



**4,800+
Global
Patents***



**Highly
Energy-
Efficient
PHOLED**



*4,800+ Pending and Issued Patents Worldwide as of August 9, 2018



Our Company

Headquartered in Ewing NJ, with offices around the world, [Universal Display Corporation \(UDC\)](#) is lighting up the OLED (organic light emitting diode) revolution with its proprietary OLED technology and highly-efficient state-of-the-art phosphorescent materials. Founded in 1994, UDC is a key enabler in the OLED ecosystem. The Company is a leading IP innovator, technology developer, materials supplier and patent licensor for the rapidly growing OLED display and lighting markets. UDC's OLED technology can be found in virtually every full-color commercial OLED product in the marketplace from smartphones and IT to wearables and TVs to VR/AR, automotive, signage and solid-state lighting fixtures.

Universal Display's Mission

UDC's mission is to be a key enabler in the OLED ecosystem and help grow the OLED industry with its broad and deep experience and know-how, proprietary OLED technologies and energy-efficient UniversalPHOLED® (phosphorescent OLED) emissive material systems.

FAST FACTS

Corporate Headquarters: Ewing, NJ, U.S.

Subsidiaries: UDC, Inc., UDC Ireland Limited, Adesis, Inc., Universal Display Corporation China, Ltd., Universal Display Corporation Hong Kong, Limited, Universal Display Corporation Japan GK, Universal Display Corporation Korea, Y.H., and we have a representative office in Taiwan.

Founded: 1994

Revenue: ~\$336 million (CY 2017)

Employees: ~220 (CY 2017)

Nasdaq Symbol: OLED

Patents: ~4,800+ (issued & pending patents worldwide, as of August 9, 2018)



Our UniversalPHOLED® Supply Chain

UDC, Inc. is a fabless company, meaning that we do not own the production factories that manufacture our commercial PHOLED products. Our proprietary phosphorescent OLED materials (UniversalPHOLED emitters) are exclusively made for us by **PPG**. We regularly visit our production partner's manufacturing sites (Monroeville, PA and Barberton, OH) to check the quality, safety, working conditions and efficiency of its production processes. *PPG's Sustainability Report* can be found at <http://sustainability.ppg.com/>.



Image source: Samsung.

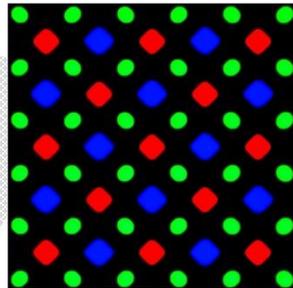
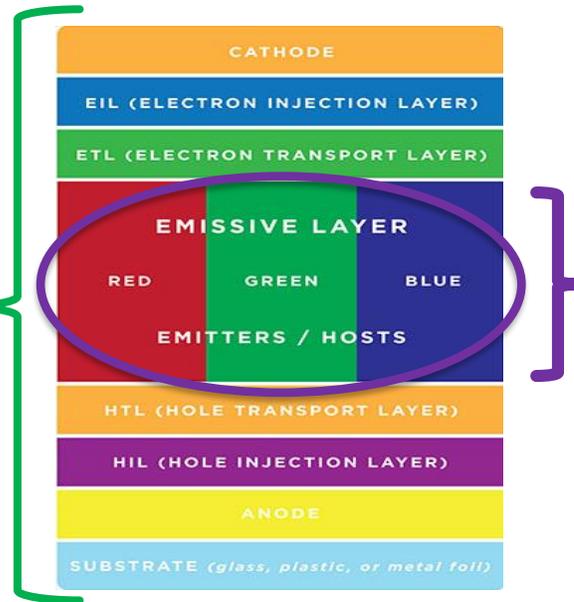


Image source: DisplayMate.



Note: For illustrative purposes only.



Our UniversalPHOLED Supply Chain

UDC and PPG share the following values, which are to:

- Operate safe, healthful workplaces that value diversity, promote teamwork and reward performance.
- Conduct business and operations in an ethical and compliant manner.
- Minimize the impact of our operations on the environment.
- Deliver inventive products and solutions that help our customers maximize the performance of their assets, minimize environmental impact and preserve and protect the environment.
- Partner with suppliers and customers to create value.
- Deliver positive change in the communities where we operate.

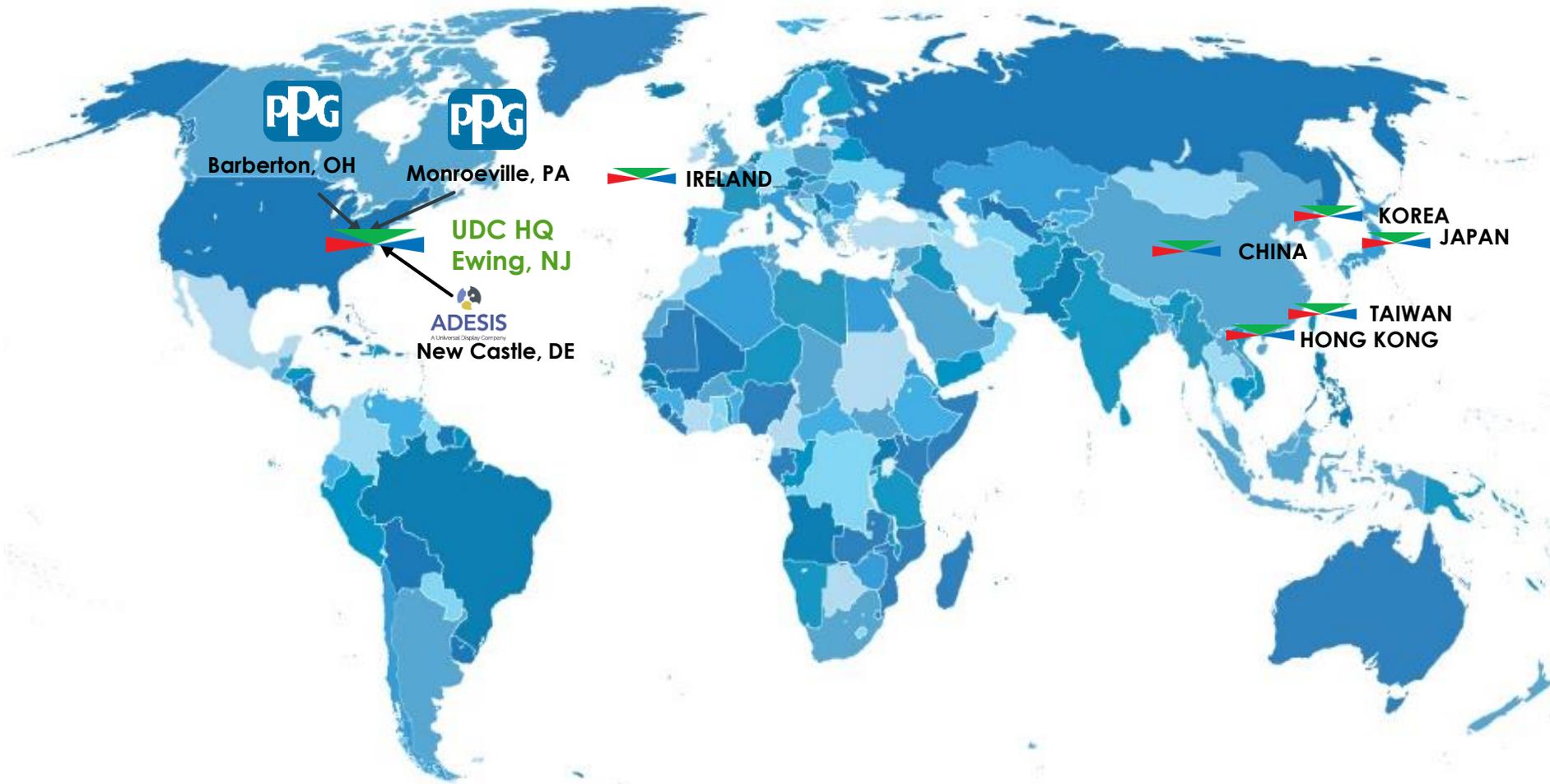
More information can be found on PPG's website:

<http://www.sustainability.ppg.com/sustainability/vision-values.aspx>



Our Global Presence

UDC is headquartered in Ewing, New Jersey, with international offices in China, Hong Kong, Ireland, Japan, South Korea, and Taiwan, and our wholly-owned subsidiary Adesis, Inc. is based in New Castle, Delaware. Our proprietary UniversalPHOLED® materials are made at our manufacturing partner PPG's Monroeville, PA and Barberton, OH facilities.





Our Innovation

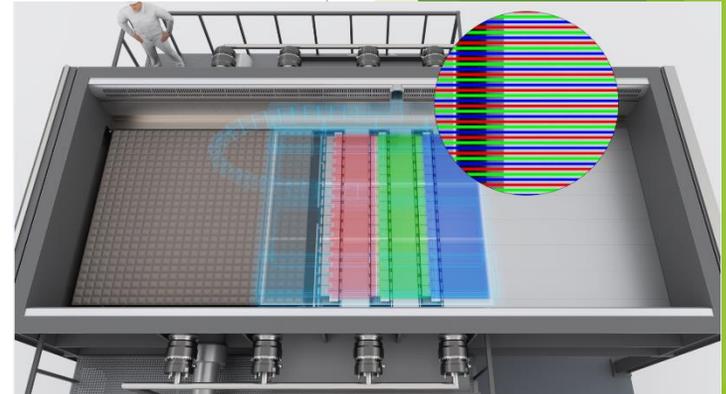


Our Innovation

Universal Display Corporation is on a committed path of continuous innovation and next-generation solutions. Across the Company, we are continually building and expanding our core competencies to accelerate our material and technology initiatives. This includes:

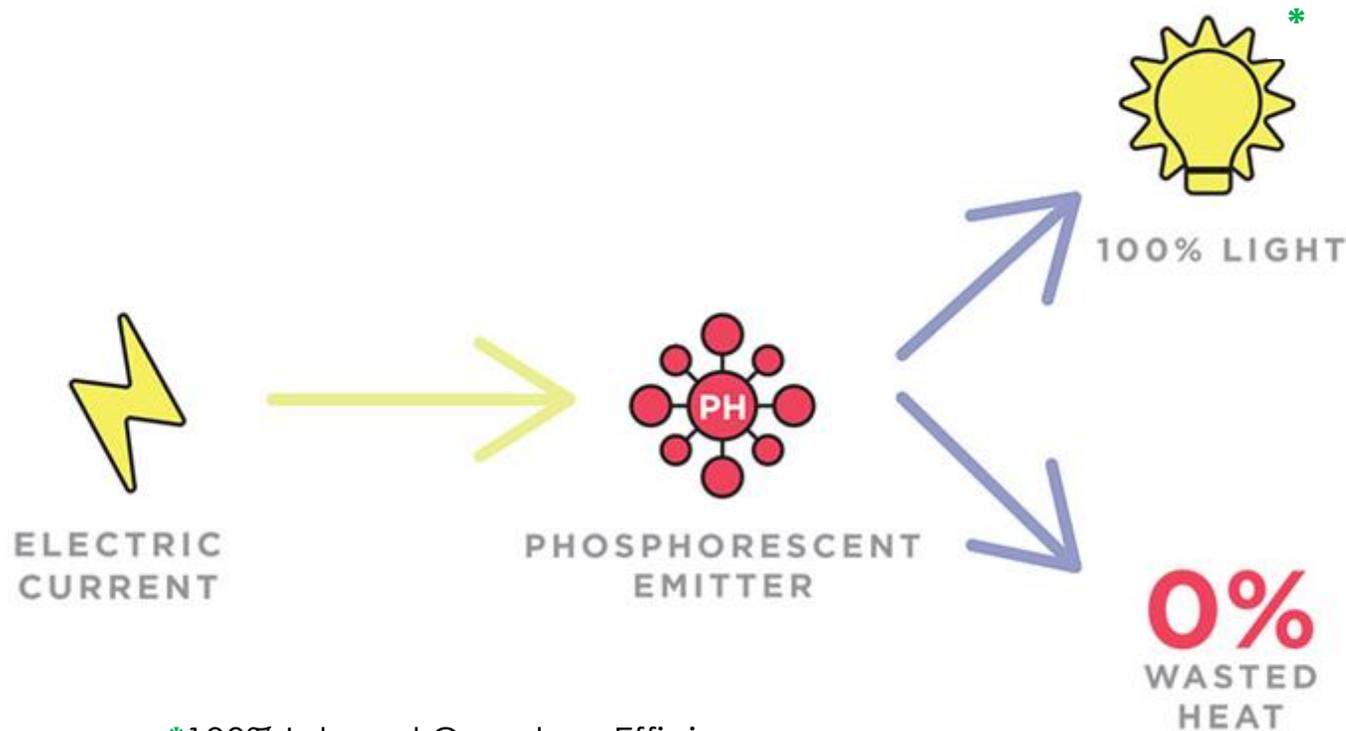
- Growing our R&D pipeline
- Further expanding our global partnerships
- Increasing our technical field capabilities and research areas
- Fortifying our new product development engine
- Continuing to make great strides in broadening the breadth and depth of our proprietary energy-efficient phosphorescent technology and materials portfolios, including state-of-the-art red, green, yellow and blue PHOLED emitters and host materials
- Advancing our next-generation manufacturing technologies, such as organic vapor jet printing (OVJP)
- Designing novel OLED device designs and system architectures

We believe that these and our other strategic initiatives will strengthen and support our focus of enabling our customers' successes, and therefore, our long-term success.



Energy-Efficiency: UniversalPHOLED®

The discovery of UDC's proprietary phosphorescent technology was a major breakthrough in the OLED industry. With efficiencies that are **up to four times higher** than with conventional fluorescent OLED materials, UDC's patented and award-winning phosphorescent OLED technology and UniversalPHOLED materials are proven and integral to enabling **low power consumption** in OLED displays and lighting.



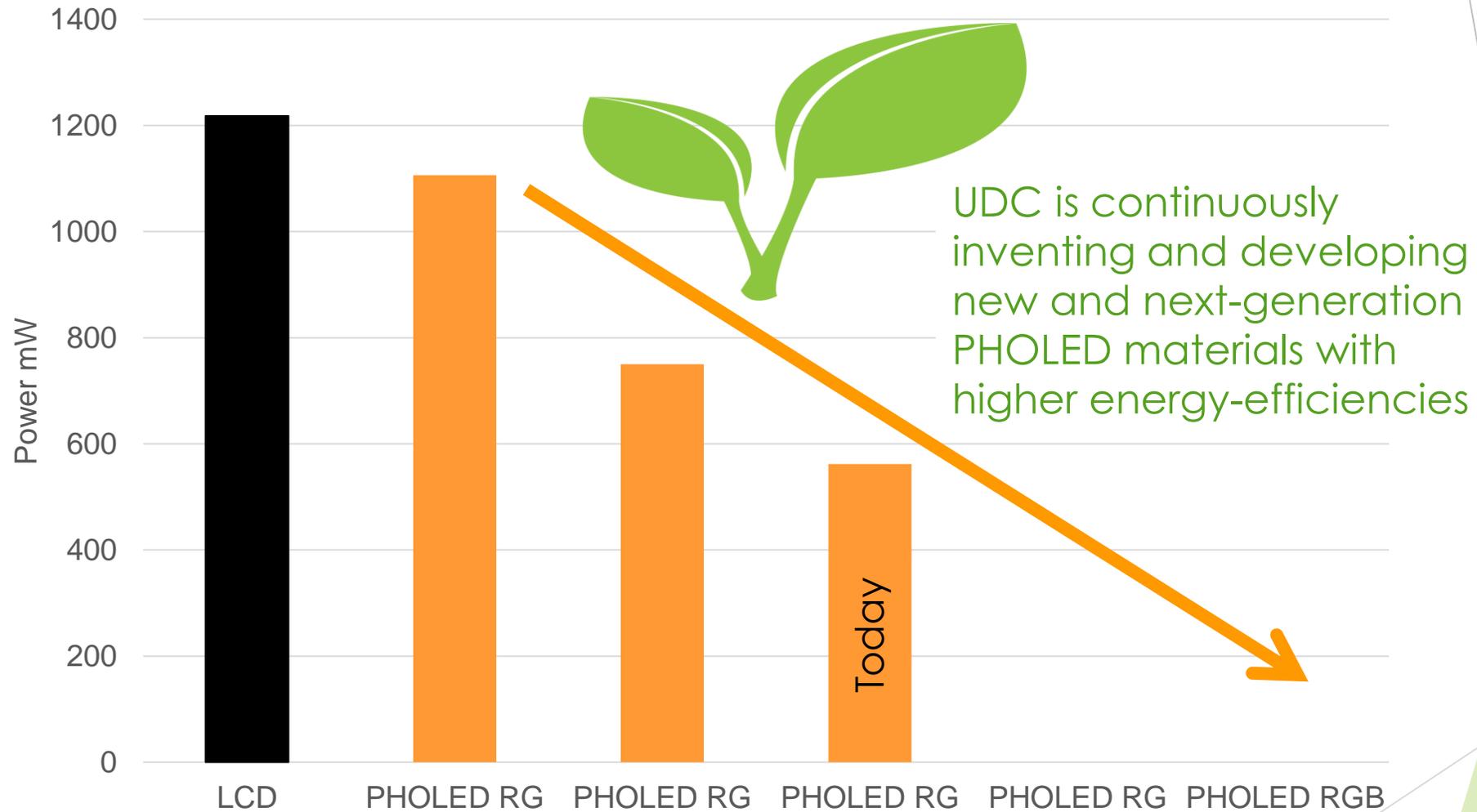
Phosphorescence:

- Enables energy efficiency
- Reduces requirements for heat dissipation components
- Increases lifetime
- Lowers product cost

*100% Internal Quantum Efficiency
[M. A. Baldo et. al., Nature, 395, 151 \(1998\)](#)



Energy-Efficient PHOLED Power Roadmap

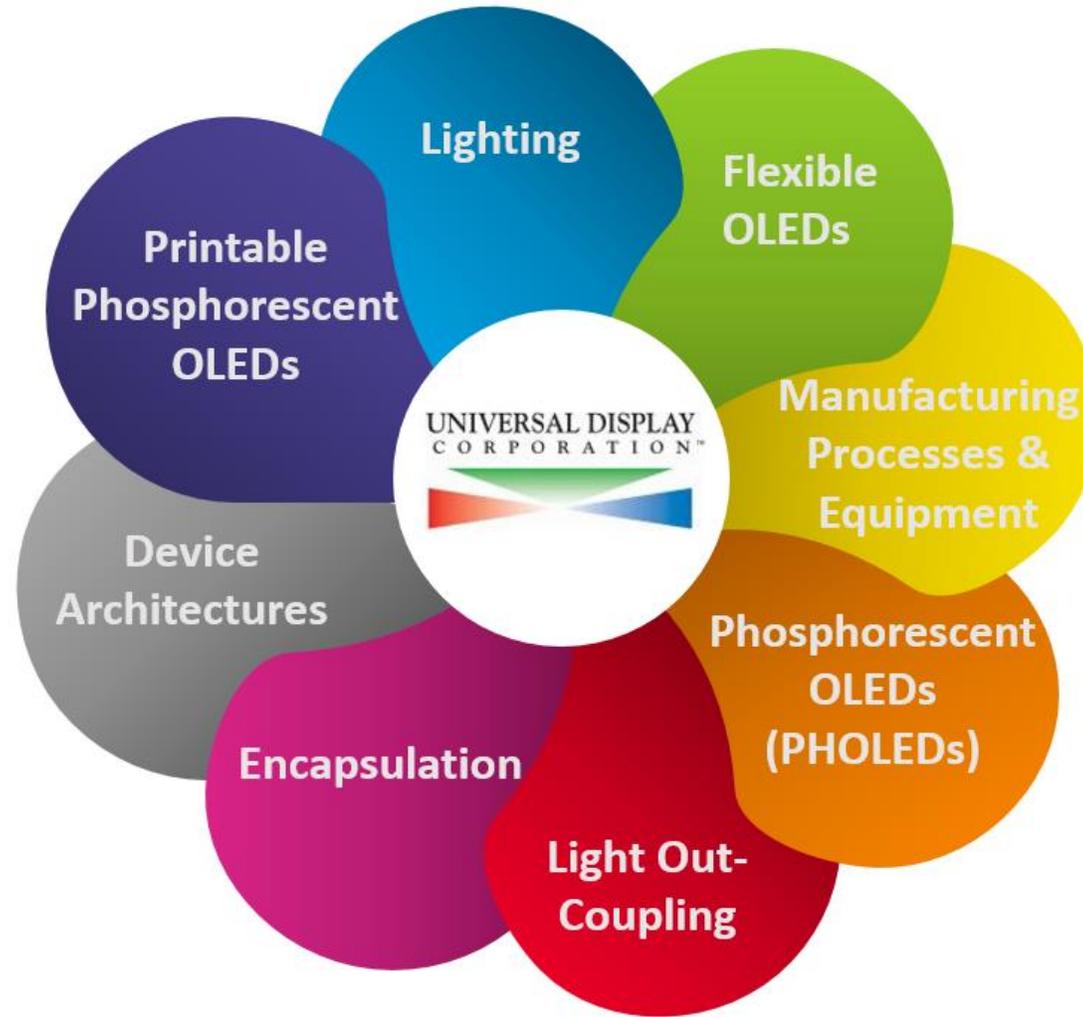


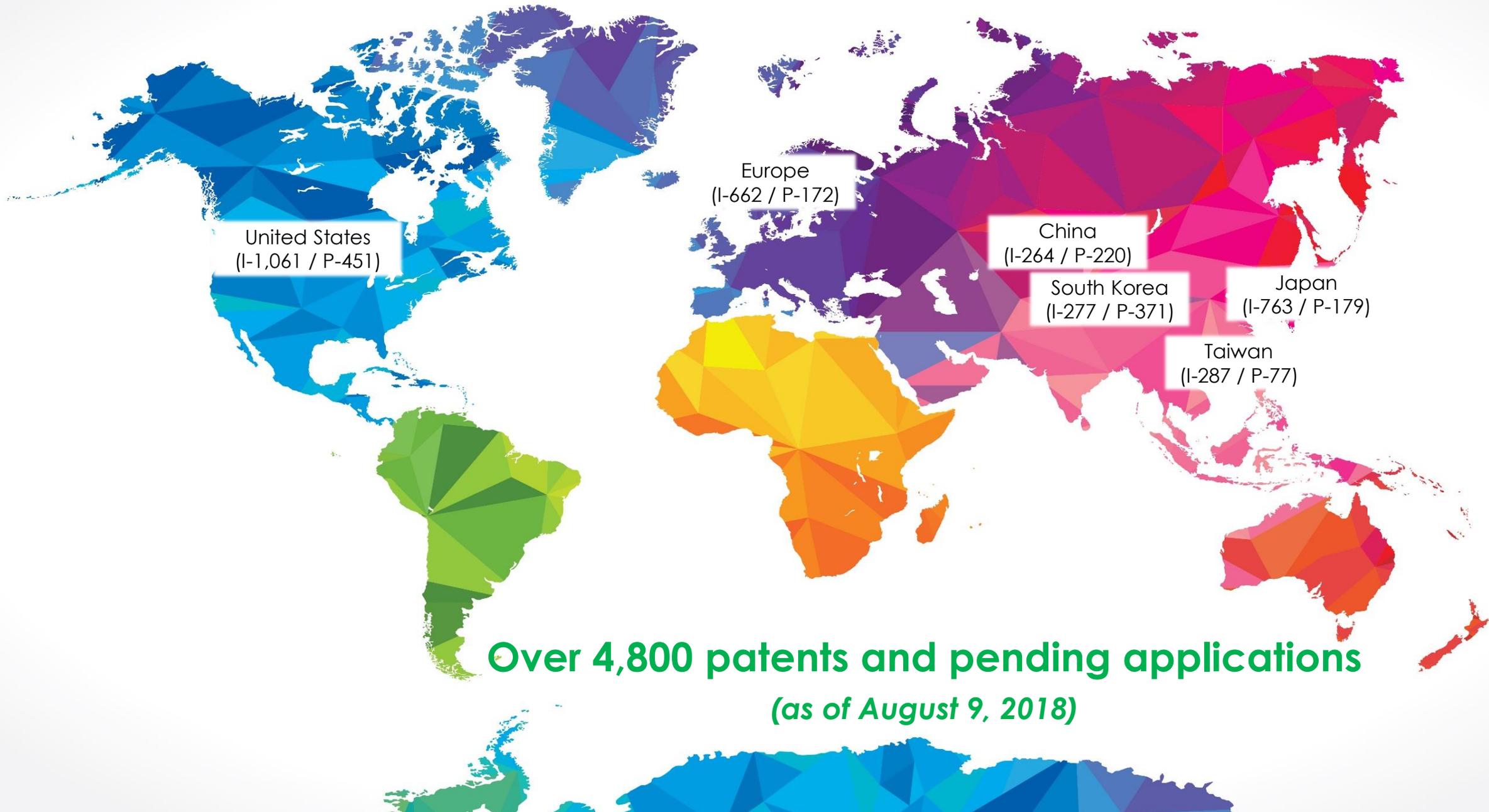
Note: Based on a 5.0" OLED display and comparable contrast LCD operating at 600 cd/m² with video (50% pixels on)
LCD data source: DisplayMate - iPhone 7 AMLCD (August 2017)
PHOLED data is based on UDC estimates



Our Proprietary OLED Technology

We develop and license enabling technologies that are at the heart of consumer OLED products worldwide, from smartphones to TVs to lighting products. We believe that our extensive portfolio of patents, trade secrets and non-patented know-how enable our leadership position in the OLED ecosystem. Our R&D innovations allow us to continuously bolster the depth and breadth of our global OLED intellectual property framework, which currently stands at over 4,800 issued and pending patents worldwide (as of August 9, 2018).





Over 4,800 patents and pending applications
(as of August 9, 2018)

UNIVERSAL DISPLAY CORPORATION™

Our People



adesis inc





Our People

At Universal Display Corporation (UDC), we know that our team of brilliant employees and their commitment to excellence are critical to the Company's continued success. With a team of approximately 220 scientists, engineers, technicians and business professionals from 20 different countries, spanning 5 different continents, UDC has a global workforce that is highly diverse, both geographically and culturally.

Equal Employment Opportunity

WE ARE AN EQUAL OPPORTUNITY EMPLOYER. We consider applicants for all positions without regard to race, gender, age, color, religion, creed, disability, national origin, ancestry, citizenship, military status, veteran status, atypical heredity cellular or blood trait, genetic information, sexual orientation, gender identity, marital status, family status, domestic partner or civil union status or membership in any other protected group. We are committed to creating a workplace that encourages and embraces diversity and inclusion. Our culture of diversity and inclusion means that we value and respect one another for our differences at all levels. We believe that a diverse workforce made up of people with different ideas, strengths, interests and cultural backgrounds drives employee and business success.



Our People

Compensation and Benefits

UDC's compensation philosophy is to provide market-competitive pay and benefits by rewarding employees for strong individual and business performance. In addition to base salary, the Company's total compensation package may also include incentive pay, such as cash bonuses and stock-based compensation.

Our comprehensive benefits program, which varies by country, helps employees meet their healthcare, financial, time-off, and retirement needs.

Our financial benefits include flexible spending accounts, Company-provided short and long-term disability, group life term insurance, and a 401 (k) plan with an automatic 3% non-elective Company contribution for all eligible employees. Domestic employees can share in the Company's growth through the Employee Stock Purchase Plan (ESPP). The ESPP allows employees to purchase common stock of Universal Display Corporation at a 15% discount through convenient payroll deductions.

We offer generous paid time-off programs, including holidays, vacation, sick time and leave.

We offer our international employees comparable benefits, though there are some variances by country based on Company policies, applicable laws and local practices.



Our People

Ethics and Compliance

We are committed to providing a workplace where everyone is treated with respect and dignity. [UDC's Code of Ethics and Business Conduct](#) sets forth the detailed elements of our ethics policy. This policy outlines our commitment to maintain a culture of ethical conduct, integrity, and legal compliance.

Employee Engagement

Listening to and involving our people in shaping the business is key to the success of the Company. In 2017, we conducted our first employee engagement survey to gather feedback on a range of topics. More than 80% of UDC's employees* worldwide completed the survey. While employees responded favorably to the survey, there remain areas of opportunity to drive improvements.

*did not include Adesis, Inc. (acquired in 3Q16).



Our People

Universal Display Corporation Employees (as of December 31, 2017)

Employees	TOTAL	UDC, Inc.	Adesis
Global Employees (Full-Time)	222	155	67
Employees in the U.S.	206	139	67
% Employees in U.S.	92%	89%	100%
% Employees outside the U.S.	8%	11%	0%
% Female Employees	24%	22%	27%
% Male Employees	76%	78%	73%

Universal Display Corporation Executive Management Team



Steven V. Abramson
President, Chief Executive Officer and Director



Sidney D. Rosenblatt
Executive Vice President, Chief Financial Officer, Treasurer, Secretary and Director



Julia J. Brown
Senior Vice President and Chief Technical Officer



Janice M. DuFour
Vice President of Technology Commercialization and General Manager, PHOLED Material Sales Business



Mauro Premutico
Vice President, Legal and General Manager, Patents and Licensing

A top-down view of a diverse group of people's hands stacked in a circle, symbolizing unity and community. The hands are of various skin tones and are wearing different colored sleeves and watches. The text "Our Community" is overlaid in the center in a bold, yellow, sans-serif font.

Our Community



Our Community

Community Participation

UDC fosters a culture of giving that makes a positive difference to our local community. Company-sponsored activities throughout the year include clothing and food collection drives, weekly meal donations to a local soup kitchen, and onsite blood drives.

Education

As a leader in the OLED ecosystem, UDC has been engaged in our local community, including giving students visibility into the display industry, and supporting those who demonstrate excellence in the STEM fields. We host on-site tours and talks with students from local schools and participate in the Research Experience for Undergraduates (REU) program, sponsored by the Princeton Institute for the Science and Technology of Materials (PRISM) and the Princeton Center for Complex Materials (PCCM). In 2017, Universal Display instituted the *UDC Innovative Research Award in Organic Electronics* and the *UDC Pioneering Technology Award in Organic Electronics* in South Korea. These UDC award grants recognize outstanding individuals or teams that have demonstrated innovative ideas or research initiatives impacting the organic electronics industry. The winners are selected by IMID (International Meeting on Information Display) and KIDS (Korean Information Display Society).

Employee Charitable Match Program

Our Charitable Match Program encourages and supports the causes and organizations that are important to UDC, Inc.'s employees. Through the Program, UDC, Inc. matches monetary donations dollar-for-dollar to eligible nonprofit organizations, up to a total of \$1,000 per year for each full-time employee.



Our Quality Management Systems





Quality Management Systems (QMS) Policy

Provide high-quality products on-time to meet customer expectations.

Heighten awareness and compliance with customer, regulatory, and statutory requirements.

Operate a secure, safe, healthy, and environmentally responsible workplace for our employees and our community.

Listen to feedback from customers and other interested parties in order to better meet their needs.

Evolve our processes and systems so they continually improve.

Distribute, plan and prioritize resources to manage risks and achieve maximum business benefits.

Policy as of October 5, 2017



Quality Assurance

Raw materials

- Network of qualified suppliers for custom raw materials
- Comprehensive product specifications and supply chain management through PPG
- In Asia, Europe and U.S. for cost-effectiveness

PPG

- State-of-the-art manufacturing and analytical capabilities at PPG's Monroeville, PA and Barberton, OH sites
- Produced to tight product specifications
- Exclusive UDC-PPG supply partnership since 2000; 15+ years expertise in PHOLED process development and manufacturing

UDC, Inc./ UDC Ireland

- 100% device qualification using ISO9001:2015 systems to ensure consistent, high-quality performance
- State-of-the art R&D and device qualification facilities (chemistry and device)
- Stored in secure inventory facilities

Mission: Produce, device-quality (QC), and deliver high-quality, consistent PHOLED materials on-time, every time

9001:2015
REGISTERED



14001:2015
REGISTERED

**UniversalPHOLED®
Material Business**

Quality Management System

**Universal Display
Corporation's Ewing Site**

Environmental Management System



UNIVERSAL DISPLAY
CORPORATION™



Our Environment, Health & Safety



Environmental Health and Safety (EHS) Policy

Protect our employees, community, and the environment by committing to pollution prevention and creating an incident- and injury-free workplace.

Analyze and investigate incidents and data trends for continual improvement.

Notify management and affected parties of potential hazards immediately, to drive prompt and effective actions.

Exceed or meet all statutory and regulatory requirements, as well as the needs and expectations of all interested parties.

Leverage risk management systems to establish meaningful, measurable objectives.

Our Performance





Our Organizational Profile*

Name of the organization	Universal Display Corporation Innovation & Solutions
Activities, brands, products, and services	Universal Display Corporation is a world leader in the invention, research, development and commercialization of state-of-the-art OLED technologies and materials.
Location of headquarters	375 Phillips Blvd., Ewing, NJ 08618, USA
Location of operations	Global Presence pg. 8
Total Patents	4,800+ (as of August 9, 2018)
Ownership and legal form	Universal Display Corporation is a Pennsylvania corporation listed on the NASDAQ Stock Market under the ticker symbol OLED. 2017 10-K/Annual Report
Markets served	2017 10-K/Annual Report
Scale of the organization	2017 10-K/Annual Report
Information on employees and other workers	2017 10-K/Annual Report Our People pgs. 15-20
Supply chain	2017 10-K/Annual Report
Significant changes to the organization and its supply chain	2017 10-K/Annual Report None.
External initiatives	ISO 9001 ISO 14001
Membership of associations	Next Generation Lighting Industry Alliance (NGLIA), NJ Technology Council (NJTC), OLED Association, OLED Lighting Coalition



Our Workplace*

Global Employees (Full-Time)	222
% Employees in U.S.	92%
% Employees outside U.S.	8%
% Female Employees	24%
% Male Employees	76%
% Female Leaders (Director +)	25%
% Male Leaders (Director +)	75%
% Females in Tech Roles	17%
% Males in Tech Roles	83%
% U.S. Veterans	5%
Employee attrition rate	8.7%
Average service years	6.5 years
Employee headcount growth (year-end 2017/year-end 2016)	10%
Employee Benefits	Careers Compensation and Benefits, pg. 18
Annual Code of Conduct Training	All employees are responsible for complying with our Code of Ethics and Business Conduct. Each year, employees certify their compliance by signing that they have read and understand the policies and confirm their commitment to following them. New employees are required to read the Code at the outset of their employment and attest in writing they have done so.
Anonymous Reporting Policy	We are committed to creating an environment where we can report suspected violations, participate in investigations and engage in any other legally-protected activities without fear of retribution or retaliation. That's why our Company prohibits retaliation of any kind against employees for raising an ethical or legal concern or for participating in an investigation in good faith.
Employee Performance Reviews	Annually
Race and Ethnicity Statistics (U.S. only):	
% White	71%
% Asian or Pacific Islander	20%
% Hispanic	1%
% Black/African American	8%
% Two or More Races	0%

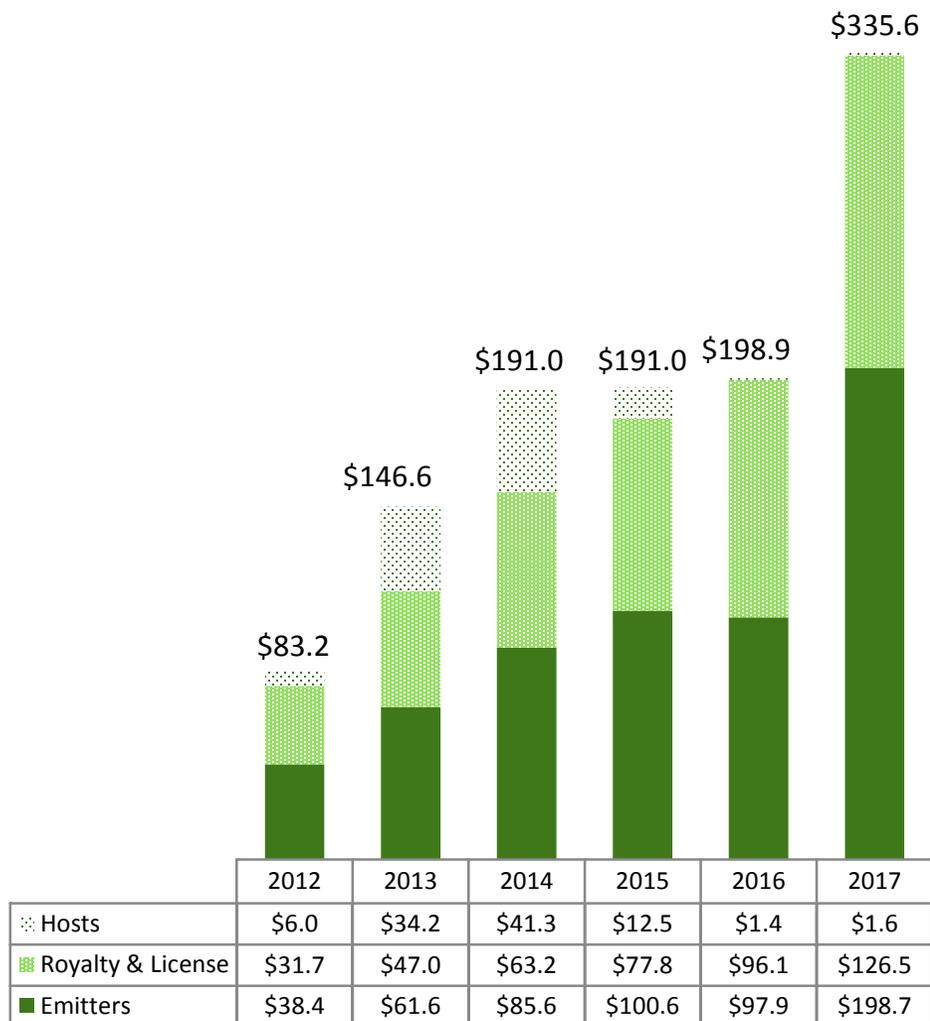


Our Governance*

# of Board of Directors	8
% Independent Board Members	63%
Separate CEO and Board Chairman	President and CEO: Steven V. Abramson
	Chairman of the Board: Sherwin I. Seligsohn
% Female Board Members	25%
Independent Audit Committee	Governance Codes and Guidelines
Nominating and Governance Committee	Governance Codes and Guidelines
Compensation Committee	Governance Codes and Guidelines
Code of Conduct	Governance Codes and Guidelines
Values, principles, standards, and norms of behavior	Governance Codes and Guidelines
Mechanisms for advice and concerns about ethics	Governance Codes and Guidelines
External reporting of compensation of board of directors & senior executives	2018 Proxy Statement
Clawback Policy	2018 Proxy Statement
Public Policy	
Total financial contributions to political parties, politicians, and PACs	\$0
Lobbying and Political Expenses	\$0



Our Revenues* (in \$millions)



2017 Financial Profile*

Total Revenue \$335.6M

% of Total Revenue

South Korea 86%

China 7%

Japan 3%

Other non-U.S. locations 1%

United States 3%

Operating Income \$146.2M

Net Income \$103.9M

Diluted Earnings Per Share \$2.18

Cash Dividend Per Share \$0.12

Unless noted, all information is based on 2017 data
***See [2017 10-K/Annual Report](#) for more detailed information**



UDC has a vision to achieve excellence for its EHS program through employee involvement at all levels, with robust management systems and focus on continuous improvement. Management leadership and employee engagement in all processes and programs is central for our exemplary compliance record. In addition to Management Leadership & Employee Engagement, key elements of our EHS Management system include Worksite Analysis, Hazard Prevention & Control, Training, and Pollution Prevention & Control. UDC is committed to conduct all aspects of operations in a manner that protects not only its employees, visitors and contractors but people, property and the environment of the communities in which UDC operates.

Our Environment, Health and Safety*

reference to Ewing, NJ HQ only

Environment and Health & Safety Management certifications	ISO 14001
Environment and Health & Safety Policy	EH&S Policy - pg. 28
Formal health and safety policy commitment	Yes
Managerial responsibility for health and safety issues	Yes
EHS teams and management review committee	Yes
EHS Risk and Opportunity Management	Yes
Procedures for hazard identification and risk assessment	Yes
Regular health and safety training programs for employees	Yes
Operating guidelines or procedures that are relevant for the industry	Yes
Targets to reduce health and safety incidents	Yes
Emergency preparedness procedures	Yes
Performance monitoring and measurement	Yes
Reporting on health and safety programs and performance	Yes
Environmental Management System	EH&S Policy - pg. 28
Managerial or board level responsibility for environmental issues	Yes
Identification of products, activities, and services that have significant impacts on the environment	Yes
Compliance with environmental regulation	Yes
Objectives, targets and deadlines	Yes
Training and awareness programs for employees	Yes
Internal and external communication on environmental management issues	Yes
Monitoring and measurement	Yes
Environmental performance records	Yes
Corrective actions to stimulate continual improvement	Yes
Internal/external environmental, health and safety audits	Yes



Our Environment, Health and Safety*

reference to Ewing, NJ HQ only

Workplace Safety

Lost Time Injury and Incident Rate	0
Total Recordable Incident Rate (TRIR)	0.7
# of Employee fatalities resulting from operational accidents	0
# Contractor fatalities resulting from operational accidents	0
#of Incidents of non-compliance (health & safety of product & incidents resulting in a fine or penalty)	0

Consumption

Total Space, sq. ft.	55,000
Total Energy Consumption, kWh (in millions)	7.2
Electricity consumption, kWh (in millions)	5.3
Natural Gas consumption, kWh (in millions)	1.9
Total Water Consumption, gallons (in millions)	1.1

Waste Management

Hazardous Waste, tons (estimated)	21
Trash, tons (estimated)	53
Non-hazardous Waste, tons (estimated)	6
Single stream recycling, tons (estimated)	120
Environmental fines, penalties & settlements, \$	None



About this Report

Safe Harbor Statement

All statements in this document that are not historical, such as those relating to Universal Display Corporation's technologies and potential applications of those technologies, the Company's expected results as well as the growth of the OLED market and the Company's opportunities in that market, are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. You are cautioned not to place undue reliance on any forward-looking statements in this document, as they reflect Universal Display Corporation's current views with respect to future events and are subject to risks and uncertainties that could cause actual results to differ materially from those contemplated. These risks and uncertainties are discussed in greater detail in Universal Display Corporation's periodic reports on Form 10-K and Form 10-Q filed with the Securities and Exchange Commission, including, in particular, the section entitled "Risk Factors" in Universal Display Corporation's annual report on Form 10-K for the year ended December 31, 2017. Universal Display Corporation disclaims any obligation to update any forward-looking statement contained in this document.

Boundary and Scope

Unless noted, this report covers our 2017 fiscal year (ending December 31, 2017). Financial data is reported in U.S. dollars. The information and data in this report includes Universal Display Corporation and its subsidiaries, unless otherwise stated. The policies and programs described in this report were in effect at the time this report was prepared, unless otherwise stated, and Universal Display Corporation disclaims any obligation to update this report to reflect future changes that may be made to such policies or programs. Additional information about our operations and financial statements is available in our [2017 10-K/Annual Report](#).