# ZECOTEK

TSX VENTURE: ZMS FRANKFURT: W11

CORPORATE PROFILE APRIL 2019

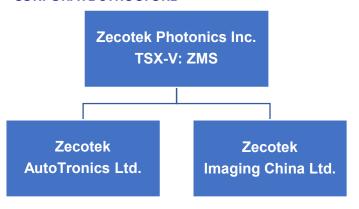
Zecotek Photonics Inc. (TSX-V: ZMS; Frankfurt: W1I, OTCPK: ZMSPF) is a photonics technology company developing scintillation crystals, solid-state photo detectors, positron emission tomography scanning components, lasers, and 3D display and 3D printing technologies for applications in healthcare, scientific and industrial sectors. Founded in 2004, the Company consists of two operating divisions: Zecotek Imaging China Ltd. and Zecotek Autotronics Ltd. Management has focused on building a strong IP portfolio by developing unique technologies for commercial applications in targeted markets and industries. With over 55 patented and patent pending novel photonic technologies, Zecotek commercializes technologies directly and through strategic alliances with leading industry partners including: Hamamatsu Photonics (Japan), Shanghai EBO Optoelectronics Technology Co. Ltd. (China), the European Organization for Nuclear Research (Switzerland), NuCare Medical Systems (South Korea), University of Washington (United States), University of California,

Davis (United States), and National NanoFab Center (South Korea).

#### **INVESTMENT HIGHLIGHTS**

- A portfolio of patent-protected and proprietary photonics technologies in technically challenging and high growth areas.
- Photonics technologies being used by major institutions and corporations, poised to disrupt existing technologies in multi-billion-dollar markets.
- World class strategic partnerships with industry leaders including Hamamatsu Photonics, the European Organization for Nuclear Research (CERN) and EBO Optoelectronics Technology Co.
- A dedicated and highly experienced management team led by Company Founder, Dr. Faouzi Zerrouk.

### **CORPORATE STRUCTURE**



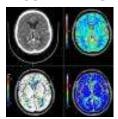
ZECOTEK PHOTONICS INC.	
TSX Venture Exchange:	ZMS
Frankfurt	W1I
ОТСРК:	ZMSPF
Outstanding Shares:	164.9 million
Fully Diluted:	218.2 million
Corporate Headquarters:	Vancouver, BC
Operational Headquarters:	Singapore

#### **BUSINESS STRATEGY**

- Develop, acquire and license key photonics technologies for the positron emission tomography (PET) medical imaging, laser and 3D display markets.
- Protect patents and intellectual property and litigate where and when necessary.
- Commercialize crystals, photo detectors and other value-added components, systems and sub-systems directly or through licenses, joint ventures and strategic alliances.
- Maximize shareholder value through the sale of key technologies and/or operating divisions.

## **KEY PATENTS & TECHNOLOGIES**

#### **ZECOTEK IMAGING CHINA LTD.**



Zecotek has three key patents protected and proprietary imaging technologies with the potential to revolutionize the US\$15 billion medical diagnostics industry:

- 1. LFS scintillation crystals,
- 2. Solid-state MAPD photo detectors and transistors,
- Integrated detector modules (IDM).

Zecotek's LFS scintillation crystals and solid-state MAPD photo detectors offer significant cost and performance advantages over existing imaging technologies in the fields of high energy physics and medical diagnostics. The IDM is a patent pending layered structure made of three principle components: an array of LFS scintillation crystals, an array of MAPD solid-state photo detectors, and a readout system. It is a cost effective and scalable design, ideal for new positron emission tomography scanner configurations and various types of gamma cameras.

Zecotek's own ISO certified LFS Crystal Production Facility officially opened on July 2, 2018 with sufficient capacity to meet Tier 1 client's requirements. The facility uses the Czochralski method with internal modifications to grow large-scale crystal boules. Lutetium fine silicate is heated, and dopant impurity atoms added to create the base for the growing the large boules. By controlling the temperature, rate of pull and speed of rotation of the rod-mounted seed crystals, technicians extract a large, single crystal, cylindrical ingot from the oven approximately 14 days later.

#### **ZECOTEK AUTOTRONICS LTD.**



Zecotek's patented **3D Display technology** represents a new generation of glasses-free 3D displays. A patented data processing module provides for real time capability, with a system capable of transferring data for up to ninety views in full high definition. It is also specifically designed for an automobile console for telemetry and entertainment at the

request of four world leading car manufacturers. Other 3D display products will have applications in the consumer electronics markets.

#### WORLD CLASS STRATEGIC PARTNERS

- Shanghai Optoelectronics Technology Co., China: marketing, sales and distribution of LFS scintillation crystals.
- Hamamatsu Photonics, Japan: world-leading developer and manufacturer of opto-electronic components and systems.
- CERN, Switzerland: one of the world's most respected centres for scientific research; home to the Large Hadron Collider.
- Nucare Ltd., South Korea: manufacture of DAQ boards and modular arrays based on MAPD + LFS + Read out Electronics.
- University of Washington, USA: PET and PET/MRI program owned and funded by Zecotek since 2004.
- University of California, Davis: PET program.
- RAM N.S. Technologies, Israel: executive sales and distribution contract for Israel.

## **RECENT DEVELOPMENTS**

#### November 14, 2018

The Company announces major restructuring, financing and the formation of two independent operating divisions: Zecotek Imaging China Ltd. and Zecotek Autotronics Ltd.

#### October 1, 2018

Malaysian Institute of Microelectronics Systems to manufacture solid-state micro-pixel avalanche photo diodes and transistors (MAPD/T)

## September 11 & 24, 2018

Delivers US\$475,000 of LFS scintillation crystals

## September 4, 2018

New LFS production facility attracting new and old customers

#### July 24, 2018

Restructures to align intellectual property, technology and business function across operating divisions

#### July 10, 2018

EBO Optoelectronics commits to LFS Crystal Production Facility

# July 3, 2018

LFS Crystal Production Facility opened in Shanghai, China

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