

CLEAR SIGNALS. SOUND INVESTMENTS.

## BAYLIN TECHNOLOGIES (TSX:BYL)

Baylin is a diversified leading global wireless technology management company. Baylin focuses on research, design, development, manufacturing and sales of passive and active RF Satellite products and services.



#### FORWARD-LOOKING STATEMENTS



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This presentation includes "forward-looking information" and "forward-looking statements" within the meaning of applicable securities laws. Forward-looking information is not a statement of historical fact. Rather, it is disclosure regarding events, conditions, developments or financial performance that we expect or anticipate may or will occur in the future including, among other things, information or statements concerning our objectives and strategies to achieve those objectives, statements with respect to management's beliefs, plans, estimates and intentions and statements concerning anticipated future events, circumstances, expectations, results, operations or performance. Forward-looking statements can be identified generally by the use of forward-looking terminology, such as "anticipate", "believe", "could", "should", "estimate", "expect", "forecast", "indicate", "intend", "likely", "may", "plan", "potential", "project", "outlook", "seek", "target", "trend" or "will" or the negative or other variations of these words or other comparable words or phrases and is intended to identify forward-looking information or statements, although not all forward-looking information or statements contain these words.

Forward-looking information and statements are based on certain assumptions and estimates made by us in light of the experience and perception of historical trends, current conditions, expected future developments, including projected growth in the antenna and related industries, and other factors we believe are appropriate and reasonable in the circumstances, but there an be no assurance that such assumptions and estimates will prove to be correct. We caution investors against placing undue reliance on this information since actual results may vary materially from the forward-looking information. The assumptions we have made in preparing the forward-looking information and our objectives include: our ability to generate sufficient revenue while controlling our costs and expenses; our ability to manage our growth effectively; the absence of material adverse changes in our industry or the global economy generally; trends in our industry and markets; our ability to manage risks related to expansion; our ability to maintain good business relationships; our ability to develop products and technologies that keep pace with the continuing changes in technology, evolving industry standards, new product introductions by competitors and changing client preferences and requirements; our ability to protect our intellectual property rights; the absence of intellectual property infringement or invalidity claims against us; our ability to manage and integrate acquisitions; our ability to retain key personnel; our ability to raise sufficient capital to support our business growth; our ability to comply with financial covenants in our credit facilities; and our ability to manage risks from operating in foreign countries

The forward-looking information and statements in this presentation are made as of the date of this presentation and, except as required by applicable law, we do not undertake any obligation to update or revise any such forward-looking information or statements, whether as a result of new information, future events or otherwise.

This cautionary statement qualifies all the forward-looking information and statements in this presentation.

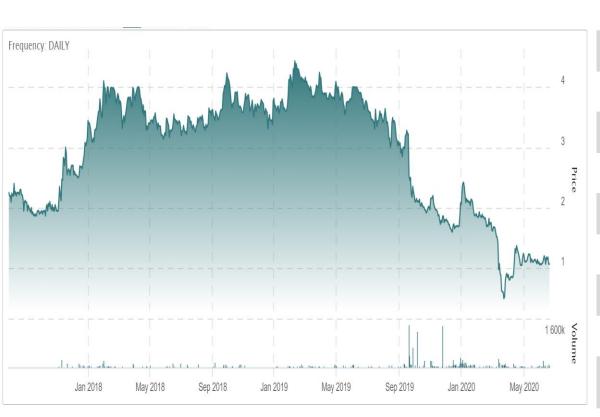
There are a number of non-IFRS measures used in this presentation, including EBITDA (earnings before interest, taxes, depreciation and amortization) and Adjusted EBITDA. For the purpose of this presentation, EBITDA is calculated as operating income plus depreciation and amortization. Adjusted EBITDA is calculated as EBITDA plus: (i) acquisition expenses (including legal, fair value step up of inventory acquired, planned restructuring and litigation relating to acquisition agreements); (ii) expenses to permanently close/relocate a facility or shut down a line of business; and, (iii) expenses relating to corporate re-organizations.. We believe that these non-IFRS measures are appropriate measures of our operating performance or of potential acquisitions. Our calculation of these measures may differ from the methodology used by other issuers and, accordingly, may not be comparable to such other issuers. We believe that these measures are appropriate measures of our operating performance because they facilitate an understanding of operating performance without giving effect to certain non-cash and non-recurring expenses. None of these measures is equivalent to net income or cash flow from operating activities determined in accordance with IFRS.

The market and industry data and technical and other information in this presentation is based on information from independent industry publications, market research, analysts reports and surveys, product information and other publicly available sources. Although we believe these sources to be generally reliable, we have not independently verified any of the data or information from them and, accordingly, we do not guarantee or represent the accuracy or completeness of that data or information and assume no liability for its use.

All figures are presented in Canadian dollars unless otherwise indicated.

## **FINANCIAL SNAPSHOT**





Ticker	TSX:BYL
Shares Outstanding	40.2 million
FD Shares Outstanding <sup>(3)</sup>	40.8 million
Recent Share Price	\$1.07
52-Week Range	\$0.47- \$3.86
Market Capitalization	\$43.1 million
Cash and Cash Equivalents <sup>(1)</sup>	\$13.6 million
Bank Debt <sup>(1) (2)</sup> Debentures	\$37.1 million \$17.25 million
Enterprise Value <sup>(1)</sup>	\$83.8 million
Insider Ownership Largest Investor Management Ownership	~48% ~7%



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# **Diversification** Reduction in major customer concentration from 46% to 30%

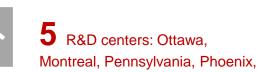


3 Yr. CAGR Revenue 21%; EBITDA 64%





**877** employees







**40+** Number of new institutions added to investor base



4 analysts



**5G** Gained access to mm wave and power technology essential for next gen networks. Active in 5G trials.

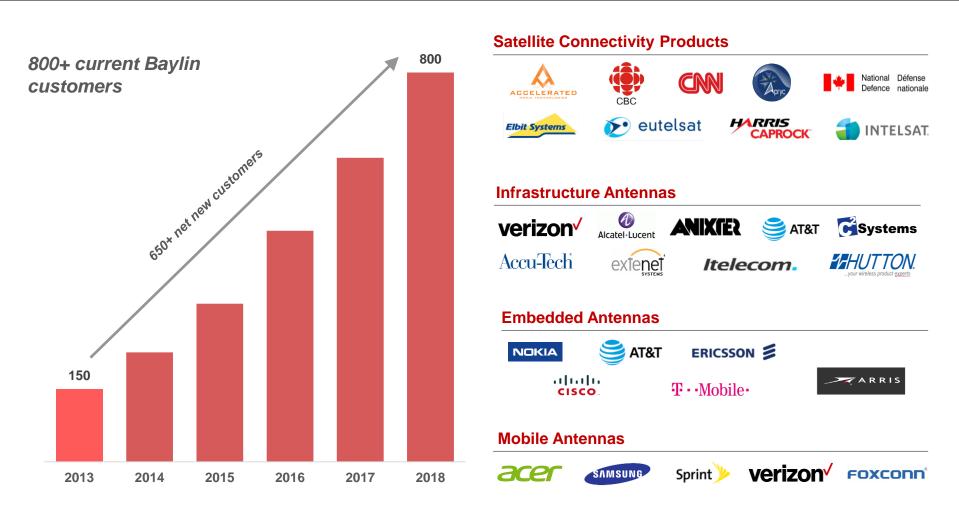




Baylin offers exceptional solutions that enable data to be transmitted across wireless networks

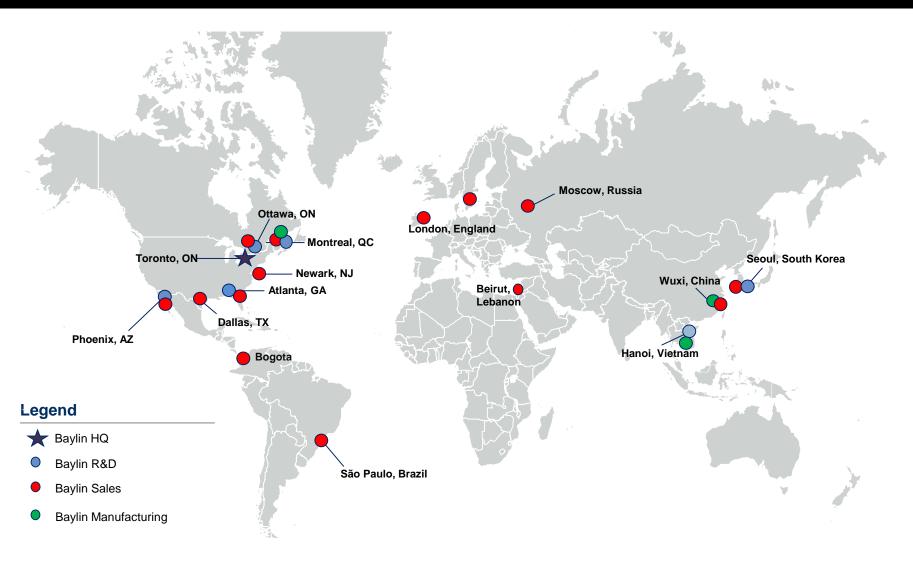
## **GLOBAL, BLUE CHIP CUSTOMER BASE**





## **BROAD GEOGRAPHIC FOOTPRINT**





# **EXPERIENCED BOARD OF DIRECTORS**- **EXECUTIVE STRATEGY COMMITTEE**





Jeffrey C. Royer Chairman Director Since: Sep. 2013



Randy Dewey
Director, President
& CEO
Director Since:
Sep. 2013



Harold Wolkin Vice-Chairman Director Since: Nov. 2013



Barry J. Reiter Lead Director Director Since: Nov. 2013



Don Simmonds
Director

Director Since:
Nov. 2013



David Saska
Director
Director Since:
May 2018



Janice Davis
Director

Director Since:
May 2019

## **BAYLIN MANAGEMENT TEAM**



#### C L E A R SIGNALS. S O U N D INVESTMENTS.

Baylin Executive Management Team



**Randy Dewey** President & CEO

Year Joined: 2015



**Minya Gavrilovic** COO and CTO

Year Joined: 2017



Michael Wolfe Chief Financial Officer

Year Joined: 2017



**Philip Mohtadi** General Counsel

Year Joined: 2019



**Daniel Kim EVP Corporate** Development

Year Joined: 2018

#### **Management Team of Subsidiaries**



Mike Moon President. Asia Pacific Year Joined: 2014

Experience:





**John Dakas** VP Sales. Embedded Antenna Group, Americas / EMEA Year Joined: 2018

**Experience:** 



NOKIA

AT&T



**Brent McMurray** VP Sales, Wireless Infrastructure Group,

Americas / EMEA

Year Joined: 2017



**Experience:** 





John Restivo President, Advantech Year Joined: 2018

Experience:





**Simon Yang** VP Engineering and GM, Arizona

Year Joined: 2018

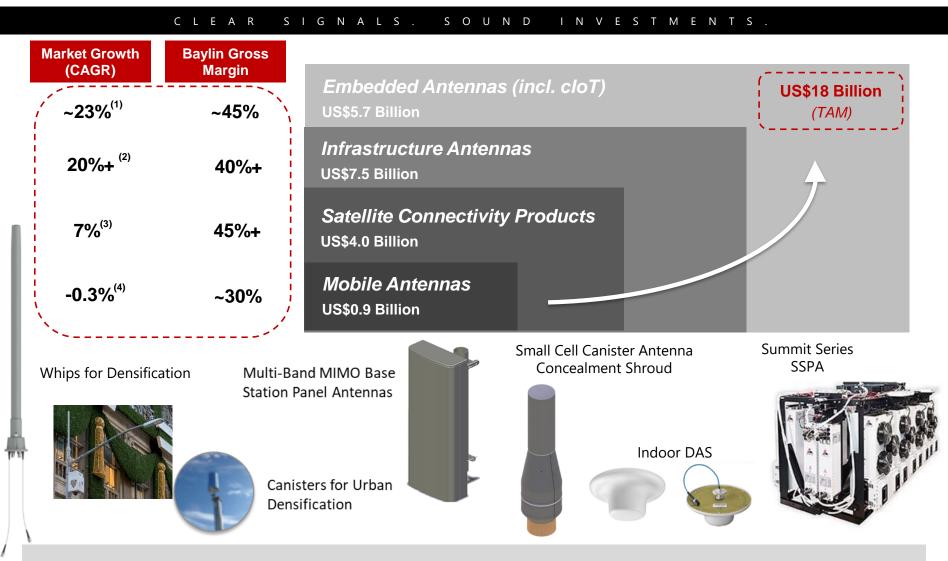


Sadegh Farzaneh VP Engineering and GM, Canada

Year Joined: 2017

## LARGE & GROWING KEY ADDRESSABLE MARKETS





Baylin's more profitable markets, Embedded and Infrastructure, are the largest and the fastest growing

(4) IDC: Worldwide Mobile Phone Forecast, 2018-2022

#### GALTRONICS

## Uniquely Positioned to Contribute to Growth



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## **Embedded Antennas**

~90%

 Percentage of routers that have shifted to embedded antenna solutions since
 Baylin changed the technology to internal solutions in 2007

#### **Growth Drivers**

- Telecom and broadcast companies are outfitting their settop boxes with cellular capabilities, transitioning them into small cell-like devices
- Baylin is one of a few companies with the expertise to capitalize on this opportunity

## Cellular IoT (cloT)

## Unique

 Baylin is one of only a handful of vendors who is certified with global carriers

#### **Growth Drivers**

- Rising demand for extended network coverage and capacity to accommodate a large number of connected devices eg. automotive
- Smart city projects and demand for energy management is driving growth for building automation

## **Growth Drivers Today**



 Wireless providers under increasing pressure to improve coverage and bandwidth

#### **Small Cell**

Growth opportunities driven by LTE network densification

#### New (2019)

#### **Future Growth Driver**

#### **Base Station Antennas**

 Baylin is leveraging its status as an approved supplier to capture market share in this fast-developing market

## **ADVANTECH/ALGA**



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#### Satcom acquisitions add mm capabilities, a key technology in 5G rollout across all infrastructure segments

#### **Commercial**

30+

Years of experience

**4x** 

Increase in RF power requirements due to 4k Ultra HD TV **50%** 

Satellite Broadcasting Operators who have adopted Advantech's new wireless technology

#### **Growth Drivers**

- In Flight Connectivity via SATCOM generates massive demands
- SATCOM on the Sea required for Internet access onboard cargo and fishing ships as a retention tool for crew members
- 5G Cellular Network expansion needs SATCOM for backhaul



## **Critical Infrastructure, Government and Military**

30+

Years of experience

3x

Increase in repeat orders from key NATO programs

**60%** 

Major Military Integrators who use Advantech's technology

#### **Growth Drivers**

- 2% of GDP for military expenditures means 3x increase in military budget for most NATO members
- Major upgrading programs in USA and EU to replace obsolete Telecom gear with Advanced SATCOM hardware to ensure global connectivity





## **Representative End-Markets**



Broadcast



Government & Military



Enterprise & Corporate



Oil & Gas



Maritime & Cruise Ships



Direct-to-Home Satellite



Homelar Security



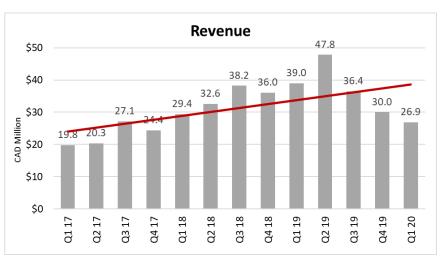
Wireless Communications

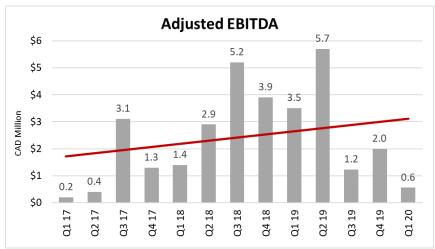


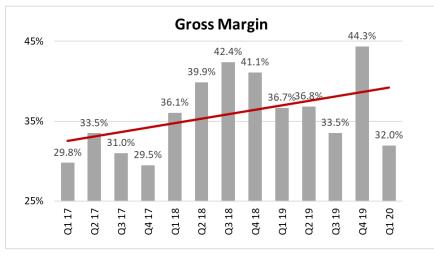


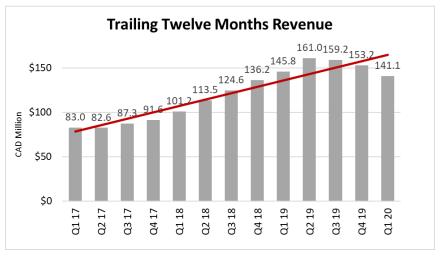
## **QUARTERLY REVENUE GROWTH**















## **2020 OUTLOOK**



- **Synergies** | The acquisitions of Advantech Wireless and Alga Microwave have yielded their first cross selling benefit with a purchase order for our newly launched Summit Series of SSPA's to a Tier 1 North American carrier for 5G backhaul services. Achieving additional cost synergies at our newly renovated manufacturing and design centre will continue to be a key focus in 2020.
- **LEO Evolution** | Multiple players (Amazon, SpaceX, OneWeb, Telesat) plan to launch thousands of low-earth orbit sats (LEOs). This will require hundreds of additional ground stations to provide global network connectivity. Seamless integration between satcom and 4G LTE/5G will be demanded by end users.
- Accelerated product development | in DAS, small cell, base station antenna (BSA), satcom and other 5G applications. Multiple 5G products launched to date.

## **2020 OUTLOOK**



- 3GPP | The next 5G NR (new radio) Release 16 will focus on expansion to new service areas/devices/business models/spectrum URLLC (ultra reliability low latency communications), DSS (dynamic spectrum sharing), vehicle communications (connected and autonomous cars) and LPWA (low power wide area for IoT).
- **FirstNet** | A tier 1 North American carrier is 75% complete in this network build. FirstNet is changing the value proposition for quality and speed of video delivery, especially in rural areas, and has helped accelerate this carrier's 5G buildout.
- **Building Channels** | Strategically partnered with Precision Marketing Inc. (PMi) who will provide exclusive technical sales and support representation in 38 states for Galtronics' world class small cell wireless antenna solutions.

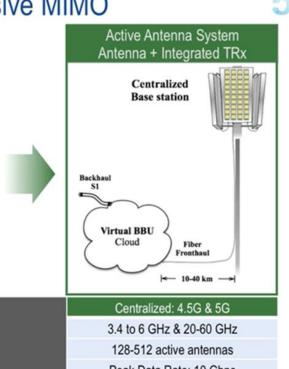
## 2020 OUTLOOK - WHAT IS MASSIVE MIMO?

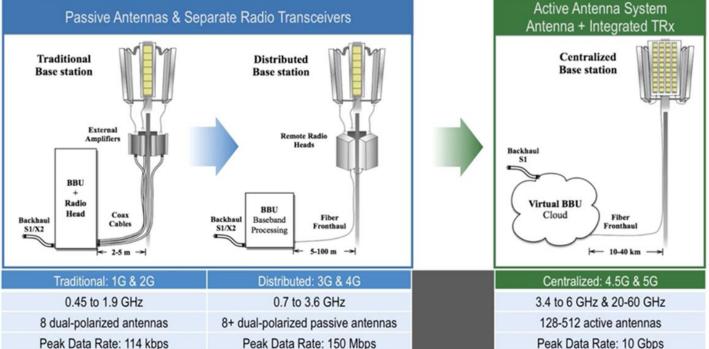


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Massive multiple-input multiple-output (MIMO) utilizes many antennas at the transceiver to improve diversity gain. It also takes advantage of uncorrelated propagation paths for higher efficiency and high throughput and/or to allow simultaneous access for different users. MIMO and beamforming techniques drive improvements in spectral efficiency (the rate of data transfer per given slice of spectrum).

## Cellular Infrastructure Evolution to Massive MIMO





## 2020 OUTLOOK – MMU INDUSTRY FORECAST



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Global Massive MIMO Market is expected to reach US\$5.67 Billion by 2024 from US\$1.09 Billion in 2017 at a CAGR of 24.4%. Other estimates range as high as US\$8-20B.



Source: Maximize Market Research

## 2020 OUTLOOK - MMU



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• MMU program | production beginning Q4 2020. This is the single largest new program BYL has ever invested in. APAC has been given the opportunity to be one of several suppliers to a tier one OEM for deployment of their 5G network, specifically to produce 5G Massive Multi-In-Multi-Out Unit (MMU) antenna modules.

## At a Glance:

- US\$8.1M will be invested over 2019/20
- Cash flow positive beginning in 2021

## **GROWTH STRATEGY**



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#### **Organic**



Focus on innovation in each of Baylin's four key segments. Accelerate development of integrated solutions between mobile and satcom



Expansion into more sophisticated product lines



Continue to complement global direct sales force with the appointment of third-party sales representatives



Leverage prime supplier status with large customers



Leverage product development and channels with strategic partnerships

#### Inorganic

#### Actively seeking acquisitions which provide:



Technological capabilities



New geographical markets



New OEM customers



New verticals



