



CHALLENGE US  
TO TAKE YOU FURTHER

The logo for "Challenge us to take you further" is located in the top right corner. It consists of a white, stylized, curved shape that resembles a crescent moon or a swoosh, positioned above the text "CHALLENGE US TO TAKE YOU FURTHER" in a white, sans-serif font.

# THE #1 WIRELESS HAULING SPECIALIST POSITIONED TO LEAD IN A GROWING MARKET

Investor Presentation // August 2020

# DISCLAIMER

*This presentation contains statements that constitute “forward-looking statements” within the meaning of the Securities Act of 1933 and the Securities Exchange Act of 1934, as amended, and the safe-harbor provisions of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements are based on the current beliefs, expectations and assumptions of Ceragon’s management about Ceragon’s business, financial condition, results of operations, micro and macro market trends and other issues addressed or reflected therein. Examples of forward-looking statements include: projections of demand, revenues, net income, gross margin, capital expenditures and liquidity, competitive pressures, order timing, growth prospects, product development, financial resources, cost savings and other financial matters. You may identify these and other forward-looking statements by the use of words such as “may”, “plans”, “anticipates”, “believes”, “estimates”, “targets”, “expects”, “intends”, “potential” or the negative of such terms, or other comparable terminology.*

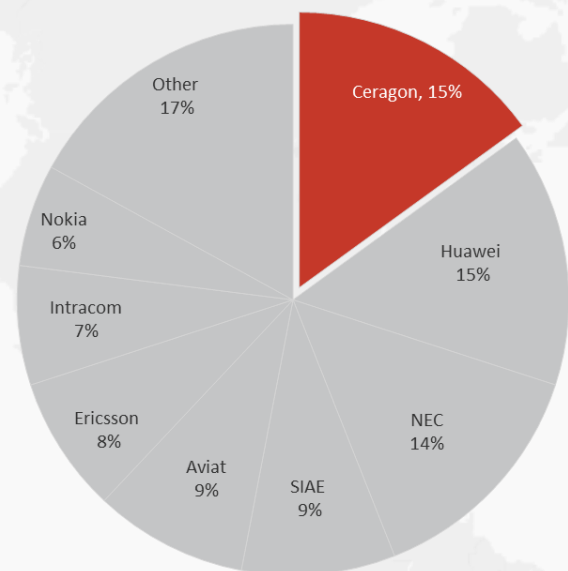
*Although we believe that the projections reflected in such forward-looking statements are based upon reasonable assumptions, we can give no assurance that our expectations will be obtained or that any deviations therefrom will not be material. Such statements involve risks and uncertainties that may cause future results to differ materially from those anticipated. These risks and uncertainties include, but are not limited to, the effects of general economic conditions, the effect of the COVID-19 crisis on the global markets and on the markets in which we operate, including the risk of a continued disruption to our and our customers’, providers’, business partners and contractors’ business as a result of the outbreak and effects of the COVID-19 pandemic and of an adverse effect on our and our customers’ financial performance, cash flow, revenue and financial results, available cash and financing, and our ability to bill and collect amounts due from our customers as a result thereof; the risks relating to the concentration of a significant portion of Ceragon’s expected business in certain countries and particularly in India, where a small number of customers are expected to represent a significant portion of our revenues; risks associated with any failure to meet our product development timetable; the risk that the rollout of 5G services could take longer or differently than anticipated and such other risks, uncertainties and other factors that could affect our results, as detailed in our press release that was published earlier today and as further detailed in Ceragon’s most recent Annual Report on Form 20-F and in Ceragon’s other filings with the Securities and Exchange Commission.*

*Such forward-looking statements, including the risks, uncertainties and other factors that could affect our results, represent our views only as of the date they are made and should not be relied upon as representing our views as of any subsequent date. Such forward-looking statements do not purport to be predictions of future events or results and there can be no assurance that it will prove to be accurate. Ceragon may elect to update these forward-looking statements at some point in the future but the company specifically disclaims any obligation to do so.*

# CERAGON AT A GLANCE

## INNOVATIVE MARKET LEADER 4G & 5G NETWORK ENABLER

Customers who choose based on value of technology select Ceragon



2019 BEST-OF-BREED MARKET SHARE

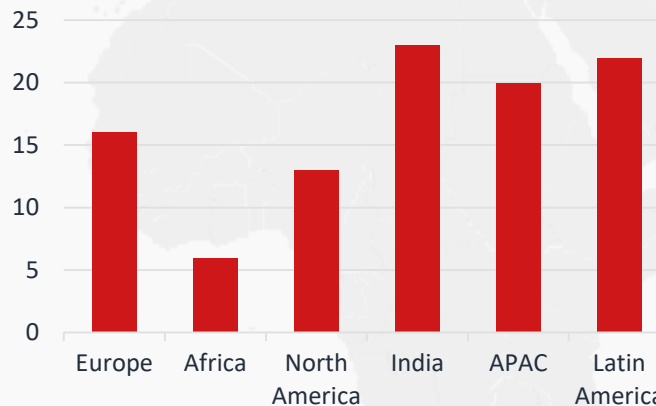
Source: Ceragon estimates based on SkyLight Research. March 2020  
\*Others include vendors with less than 2% share

## GLOBAL COMPANY

Significant activity in each region



% of revenue Last 12 months  
BALANCED REVENUE MIX



## COMPANY SNAPSHOT

<b>+2,000</b>	TOTAL CUSTOMERS
<b>+1M</b>	SYSTEMS DEPLOYED
<b>+140</b>	COUNTRIES WITH SYSTEMS DEPLOYED
<b>1,000+</b>	EMPLOYEES GLOBALLY
<b>\$0.99-\$3.25</b>	52 WEEK LOW/HIGH <sup>(A)</sup>

(A) Source: Nasdaq as of 7/31/2020

# WE DO WIRELESS HAULING

## CRITICAL TECHNOLOGY FOR 4G AND 5G NETWORKS



WIRELESS HAULING – AN ALTERNATIVE TO FIBER DEPLOYMENT  
 AN ESSENTIAL PART OF ANY NETWORK EVOLUTION FOR FASTER AND MORE COST-EFFECTIVE DEPLOYMENTS

Connects approximately 50% of all cell sites globally (current & forecast)

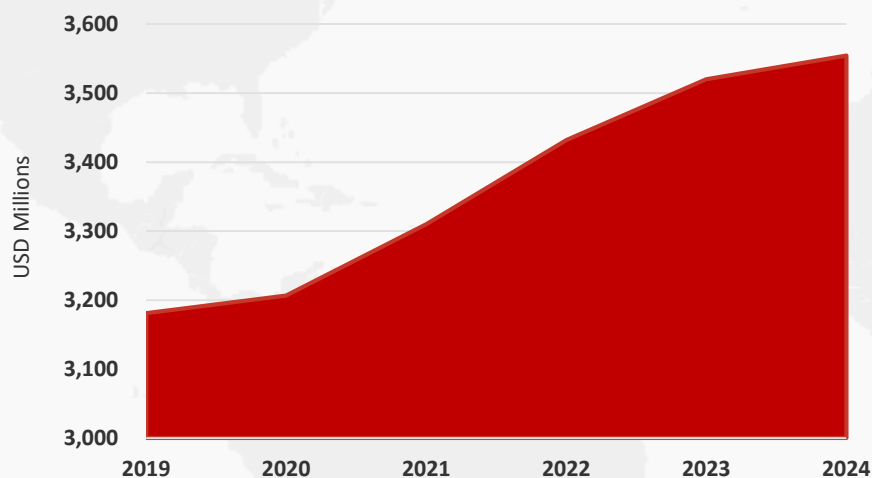
# INVESTMENT HIGHLIGHTS

## POSITIONED TO LEAD IN THE GROWING 5G MARKET

### 5G A GROWING MARKET

Market growth driven by 5G opportunities for service providers

Microwave & millimeter-wave global revenues forecast



Source: Dell'Oro – 2020

### CERAGON POSITIONED TO LEAD AND TAKE MARKET SHARE

- Leading wireless hauling specialist
- Unique technology
- Anytime-anywhere extensive services
- Global presence
- Financial and business resilience

# COVID-19 IMPACTS THE 5G MARKET: SHORT TERM RISK, LONG TERM GAIN

## BROADBAND: THE NEW ESSENTIAL UTILITY

- Telecom and broadband services are the new lifeline
- There is a surge in network capacity demand
- Some service providers are taking action to ramp up their network infrastructure
- 5G use-cases are becoming a reality – even sooner than anticipated
- Already driving increased demand for Ceragon's leading wireless hauling solutions and services
- Possible short-term slowdown due to global recession, lockdowns affecting supply chain, and operators temporarily reducing 5G network investments



# THE GROWING 5G MARKET

## 5G EXPECTED TO CREATE OPPORTUNITIES FOR SERVICE PROVIDERS

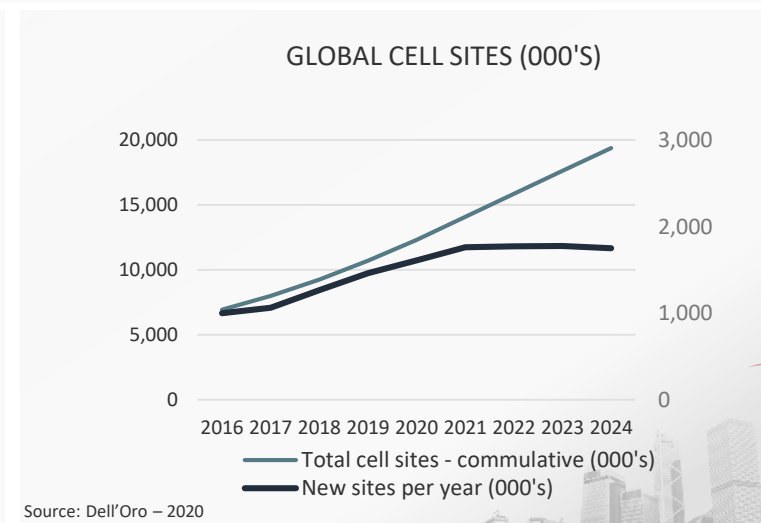
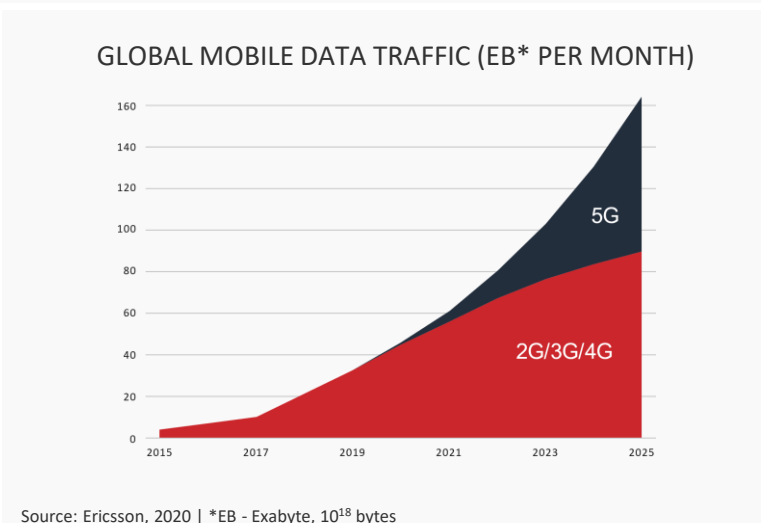
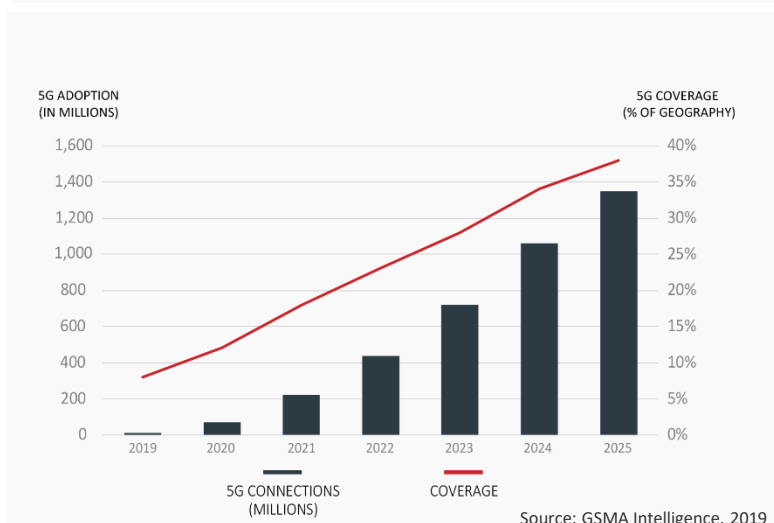
New revenue streams via new service offerings & additional target markets



5G to drive growth in number of connections

Combined with significant growth in traffic

Accelerating deployment of new cell sites



# 5G OPERATOR OPPORTUNITIES DRIVE MARKET GROWTH...

...WHILE CREATING NETWORK CHALLENGES OF A DIFFERENT SCALE THAN 4G

5G EXPECTED TO CREATE OPPORTUNITIES FOR SERVICE PROVIDERS

New revenue streams via new service offerings & additional target markets



## NETWORK TRENDS

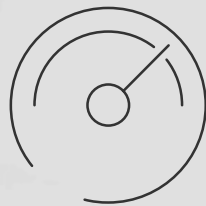


New Services

New Network Architectures

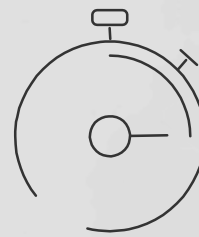
New Cellular Spectrum

## NETWORK CHALLENGES



x100

PROVIDE MORE CAPACITY



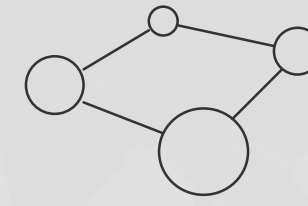
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REDUCE LATENCY



x4

NETWORK SLICING FOR SERVICE ORCHESTRATION



x5

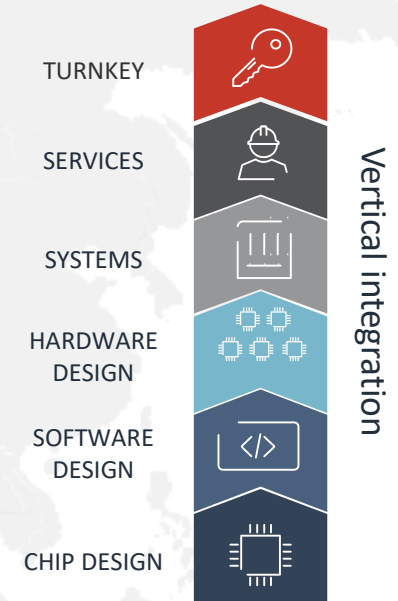
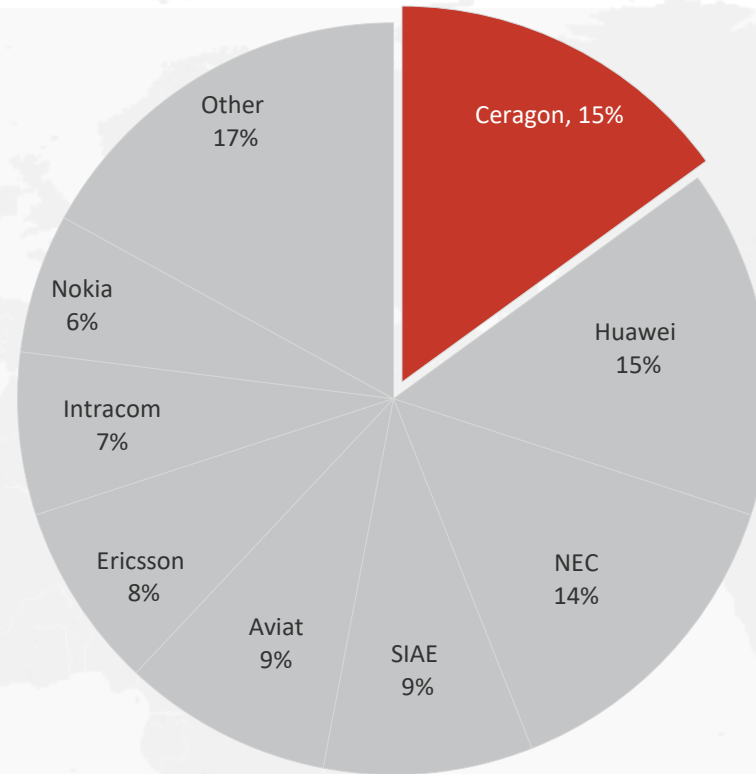
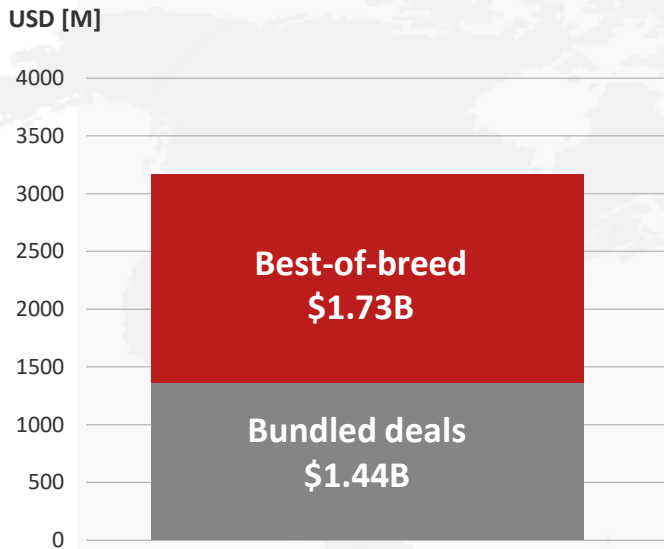
DEPLOY MORE SITES



# GROWING 5G NETWORK COMPLEXITY DRIVES OPERATORS TO ADOPT BEST-OF-BREED\* VENDOR STRATEGIES

## 'BEST-OF-BREED' LEADERSHIP THROUGH UNIQUE VERTICAL INTEGRATION

BEST-OF-BREED MARKET SEGMENT REVENUE - 2019



Source: Ceragon analysis based on Skylight research. March 2020  
Others include vendors with less than 2% share

\* Service providers seeking the best wireless hauling solution as primary factor in their vendor selection. Open-RAN as a major driver

# BEST-OF-BREED LEADERSHIP DRIVERS

BUILT ON VERTICAL INTEGRATION

## CHIPSET

UNIQUE MULTICORE TECHNOLOGY



### 4G DUAL CORE



### 5G OCTA CORE



## ALL - OUTDOOR NETWORK

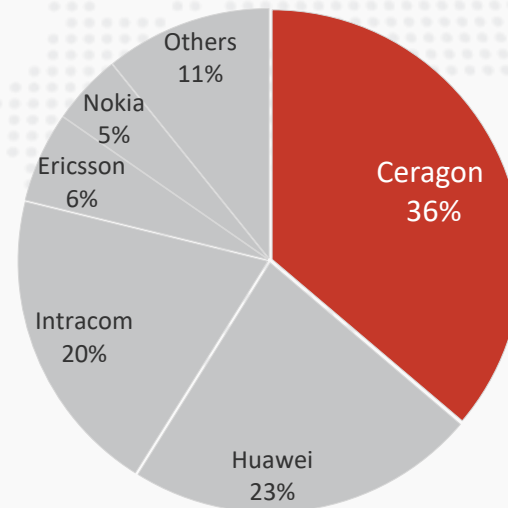
BEST-FIT FOR NETWORK EXPANSION

FAST DEPLOYMENT | SIMPLE SITE ACQUISITION

ENABLER FOR NETWORK DENSIFICATION

LOWEST TCO | FAST TIME TO REVENUE

2019 ALL-OUTDOOR UNIT MARKET SHARE



Source: SkyLight Research. March 2020

## DISAGGREGATED WIRELESS HAULING

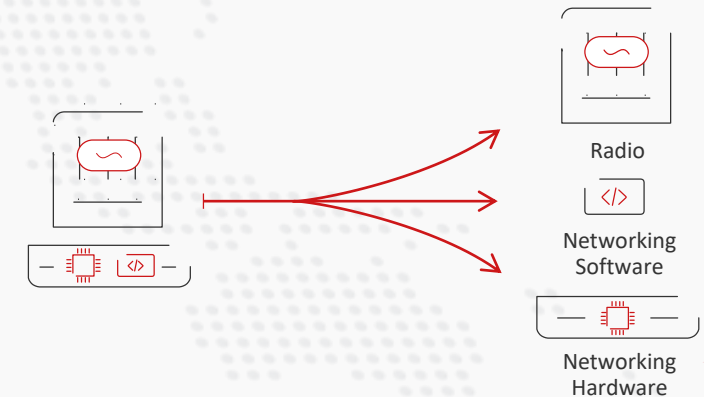
PIONEERING OPEN NETWORKS  
IN THE HAULING DOMAIN

LOW TOTAL NETWORK INVESTMENT

FAST NETWORK ROLLOUT

SIMPLER NETWORK EVOLUTION

NO VENDOR LOCK-IN

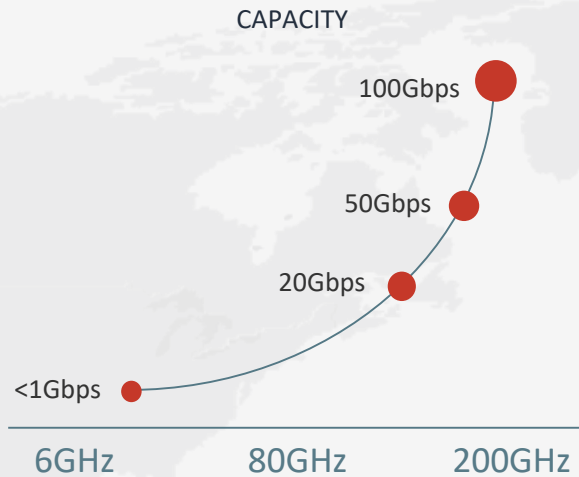


# UNIQUE TECHNOLOGY

## BUILT ON VERTICAL INTEGRATION

Vertical integration

### HIGHEST INDUSTRY RADIO CAPACITY AT ANY SPECTRUM



- Any network hauling scenario
- Any network capacity
- Low latency, compact nodes

Eliminate dependency on fiber  
Save time and money

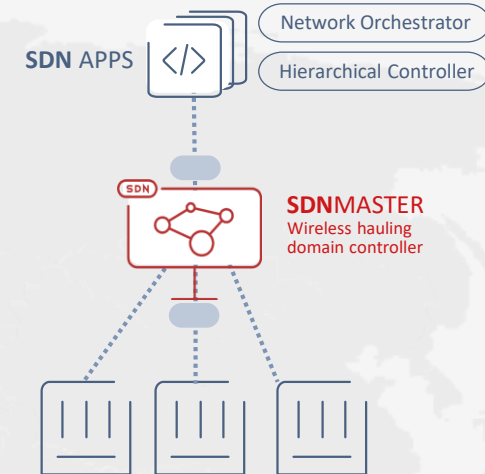
### DISAGGREGATED WIRELESS HAULING



- Low total network investment
- Fast network rollout

Open network approach adopted  
by major Tier 1 operators

### SOFTWARE DEFINED NETWORKING



- Faster time to market for new 5G services
- Simple network slicing

Network agility – Today!

# COMPLETE NETWORK LIFECYCLE SUPPORT

BUILT ON VERTICAL INTEGRATION



## PLAN

- Network planning & design
- Network topology optimization



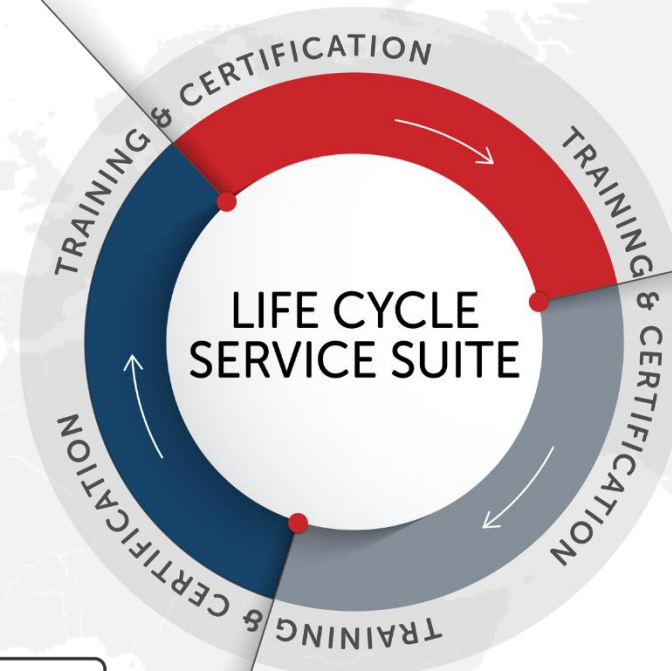
## DEPLOY

- Network rollout planning
- Network rollout execution and support



## OPERATE

- Customer support
- Preventive maintenance
- NOC operation
- Predictive Analysis
- Infrastructure management & opt



Vertical integration





# SERVING CUSTOMERS WORLDWIDE

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## PRESENT EVERYWHERE TO CAPITALIZE ON 5G

5G

Tier-1 Operator



Digicel



Claro



proximus

cellnex



eurona



smartfren.



OPTUS

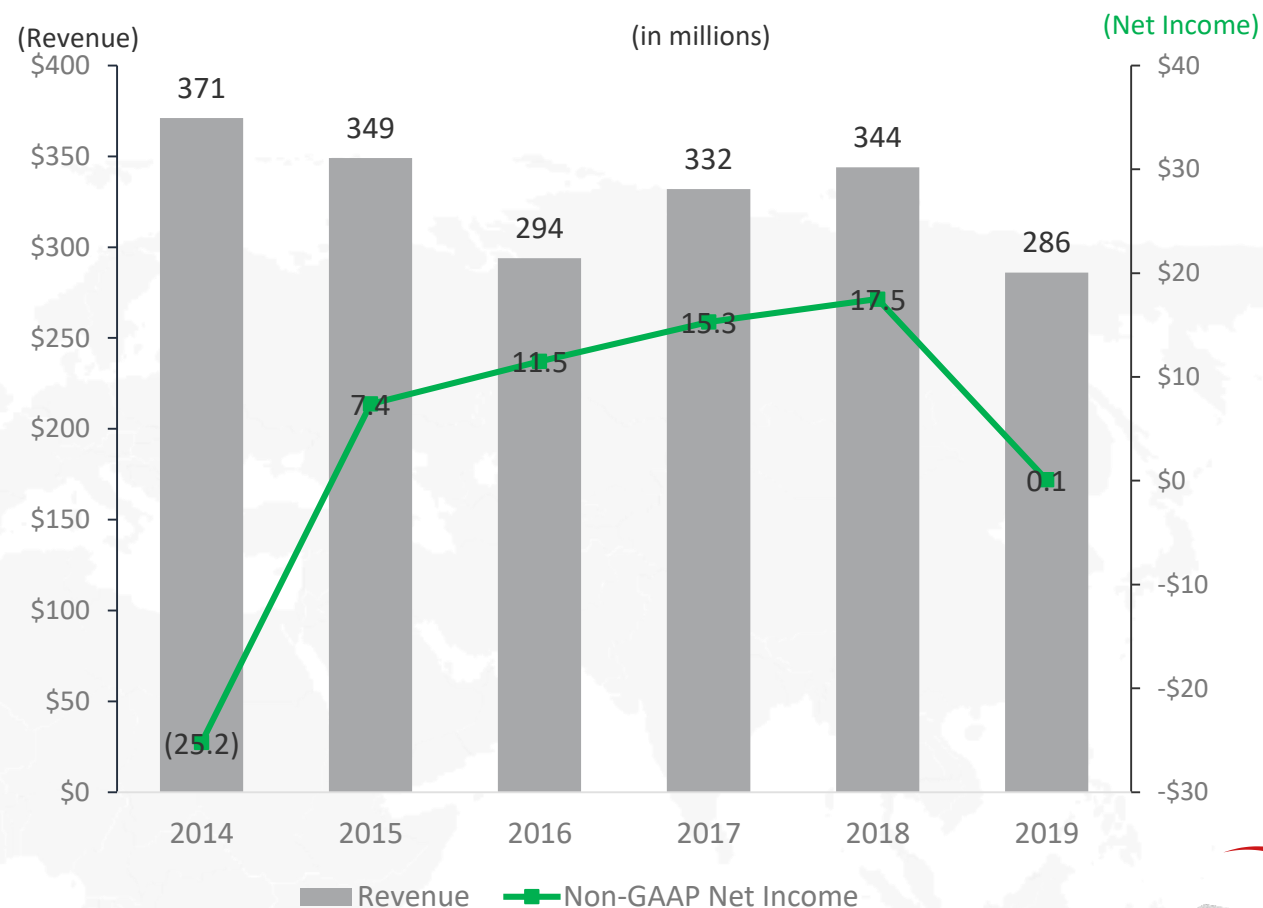


telecom mauritius

FINANCIALS

# TRACK RECORD OF EXECUTION

- Consistently profitable from 2015-2018
- 2019 results negatively impacted by lower revenue from India and \$3.3 million in one-time items
- Focus on maximizing gross profit dollars
- Strong H1 bookings (book-to-bill above 1), generally healthy backlog
- H1 2020 revenues negatively impacted by COVID-19; current indications point to a return to a more normal run rate expected in H2 though unknown factors related to the COVID-19 environment may impact the timing of revenues and ongoing projects
- Supply chain disruptions and overall uncertainty temper long-term optimism



Note: Financial metrics are presented on a non-GAAP basis.

## STRONG BALANCE SHEET

- **Positioned to weather challenges**
- Positive cash flow of \$4 million from operations and investing activities
- Short-term bank debt: >\$20.3 million unused borrowing capacity
- On July 1, extended credit line from a consortium of banks for another year; raised from \$40 million to \$50 million
- Credit facility to be used as a business tool to accommodate short-term increase in working capital needs

	(U.S. dollars in millions) (Unaudited)
	a/o June 30, 2020
Cash & cash equivalents	35.2
Short-term loans	19.7
Inventory	53.6
AR	97.5
DSOs	136



# CHARACTERISTICS OF OPERATING MODEL

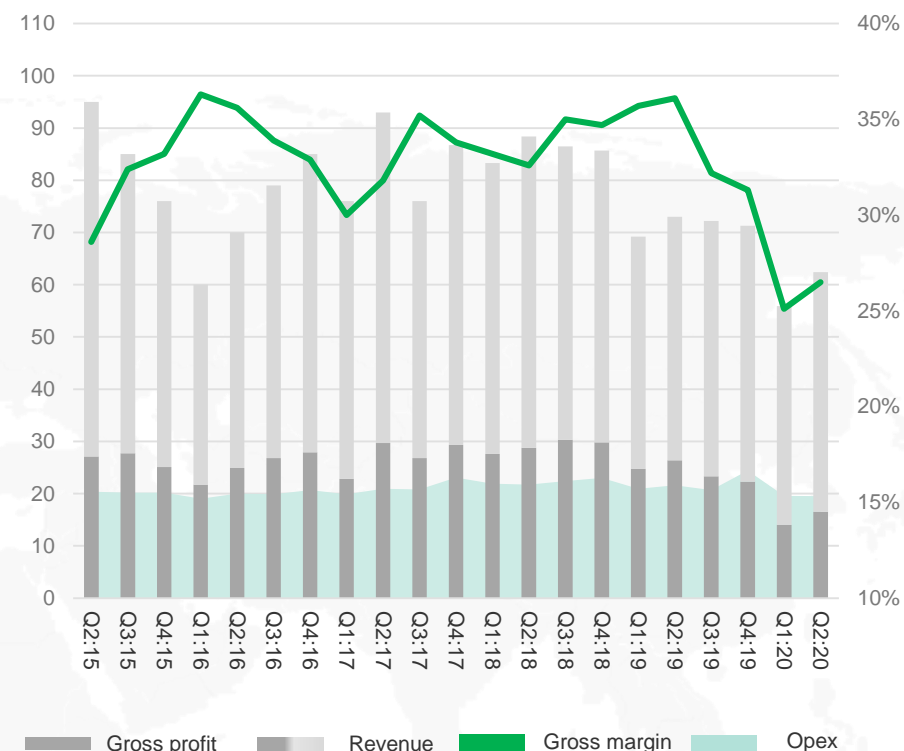
## Good management of controllable elements

- Deals accepted based on contribution to gross profit dollars
- Tendency toward trade-off between revenue and gross margin
- Stringent control of operating expenses

## Quarter-to-quarter fluctuations due to nature of business

- Geographic mix of revenues
- Shifts in local regulations and market environment
- Timing of revenue recognition for elements of each project depends on equipment delivery schedules
- Also: currency fluctuations, interest rates, seasonality, order lumpiness, changes in raw material and component costs
- Q2 low gross-margin driven by relatively low revenue as well as less favorable regional and sub-regional mix, increasing costs of sourcing and increased supply chain expenses of the current environment

## Quarterly Operating Model



Note: Financial metrics are presented on a non-GAAP basis.

# SUMMARY

# POSITIONED TO CAPITALIZE ON ACCELERATED, MULTI-YEAR EVOLUTION TO 5G

- + Leading player in a market which is expected to accelerate growth
- + Differentiated, technologically-advanced platforms that give operators a time-to-market, flexibility and capacity advantage
- + Competitive strengths position us to obtain major share of highest-value opportunities and to gain overall market share
- + Financial stability enables continuous innovation and design-to-cost investment
- + 2020 started with strong bookings in H1 from multiple 2019 design wins and new COVID-19 driven interest

A large, stylized red graphic element, resembling a thick, curved arrow or a signal wave, is positioned in the center of the image, pointing towards the right.

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