

MAY 2020

# INVESTOR PRESENTATION



# SAFE HARBOR STATEMENT

This document contains forward-looking statements. The words “believe,” “may,” “will,” “potentially,” “estimate,” “continue,” “anticipate,” “intend,” “could,” “would,” “project,” “plan,” “expect” and similar expressions that convey uncertainty of future events or outcomes are intended to identify forward-looking statements. Forward-looking statements may address the following subjects among others: the status of filter designs under development, the prospects for licensing filter designs upon completion of development, plans for other filter designs not currently in development, potential customers for our designs, the timing and amount of future royalty streams, the expected duration of our capital resources, our hiring plans, the impact of our designs on the mobile device market, and our business strategy. Forward-looking statements are inherently subject to risks and uncertainties which could cause actual results to differ materially from those in the forward-looking statements, including, without limitation, the following: our limited operating history; our ability to complete designs that meet customer specifications; the ability of our customers (or their manufacturers) to fabricate our designs in commercial quantities; the ability of our customers to sell products incorporating our designs to OEMs; our dependence on a small number of customers; the ability of our designs to significantly lower costs as compared to other designs and solutions; the risk that the intense competition and rapid technological change in our industry renders our designs less useful or obsolete; our ability to find, recruit and retain the highly skilled personnel required for our design process in sufficient numbers to support our growth; our ability to manage growth; and general market, economic and business conditions. Additional factors that could cause actual results to differ materially from those anticipated by our forward-looking statements are under the captions “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in our most recent Annual Report (Form 10-K) or Quarterly Report (Form 10-Q) filed with the Securities and Exchange Commission. Forward-looking statements are made as of the date of this document, and we expressly disclaim any obligation or undertaking to update forward-looking statements.

We may refer to information regarding potential markets for products and other industry data. We believe that all such information has been obtained from reliable sources that are customarily relied upon by companies in our industry. However, we have not independently verified any such information.



SOLVING CRITICAL RF  
PROBLEMS BY PROVIDING  
DIFFERENTIATED SOLUTIONS  
FOR THE LARGEST SEGMENT<sup>1</sup>  
OF THE RFFE (RF FRONT-END)  
MARKET



# GROWTH DRIVEN BY PROVEN INDUSTRY-LEADING TECHNOLOGY

## UNPARALLELED DISRUPTIVE TECHNOLOGY

- **ISN®**: proprietary software platform revolutionizes filter design
  - Enables high-performance, low-cost and fast time-to-market
- **XBAR®**: revolutionary BAW (bulk acoustic wave) resonator
  - Critical for 5G filters

## DIVERSIFIED GROWTH PLATFORM

- **Multiple revenue streams**
  - ISN-enabled 4G filter solutions, standard IP library, **break-out royalty growth** from XBAR and other high frequency-enabled 5G products
- **Foundry Program**
  - ISN-generated filter designs from stable, low-cost supply chain



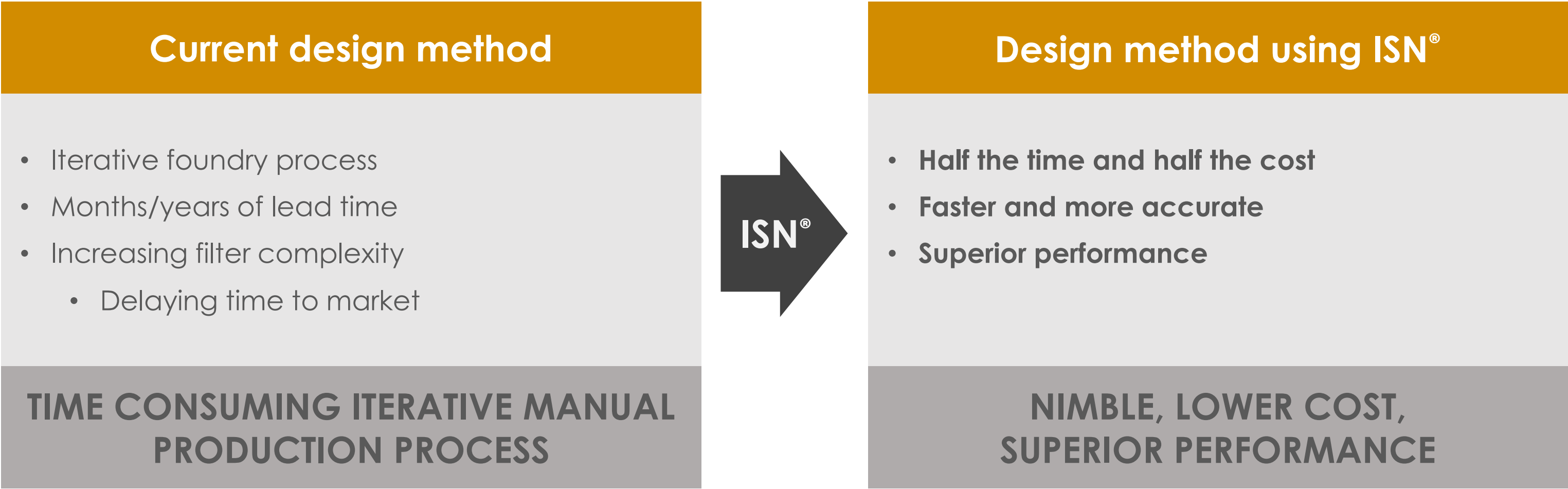
TECHNOLOGY ADDRESSES FASTEST GROWING FILTER MARKETS



# THE CORNERSTONE FOR RESN TECHNOLOGY

## RESONANT'S ISN<sup>®</sup>

- **ISN** revolutionizes filter design
- Enables **low-cost** SAW fabrication with **superior performance** and **faster time-to-market**
- No comparable acoustic wave filter design tool exists



# XBAR® MEETS 5G AND WIFI REQUIREMENTS

## RESONANT'S XBAR® AND DEEP IP PORTFOLIO

### XBAR: RESN's revolutionary BAW resonator structure developed using ISN®

- Manufactured using standard SAW processes
- Higher native operating frequency (3-7 GHz)
- 4x wider operating bandwidth, up to 24%
- Delivering bandwidth and throughput (HD video)
- Enables more network capacity
- Delivers the 5G consumer experience



### IP Portfolio

- >200 patents pending or issued
- >50 patents pending covering XBAR and related high frequency technologies
  - First 3 XBAR patents issued

**BREAKTHROUGH TECHNOLOGY POISED TO DISRUPT THE INDUSTRY**

# DIVERSIFIED REVENUE STREAMS

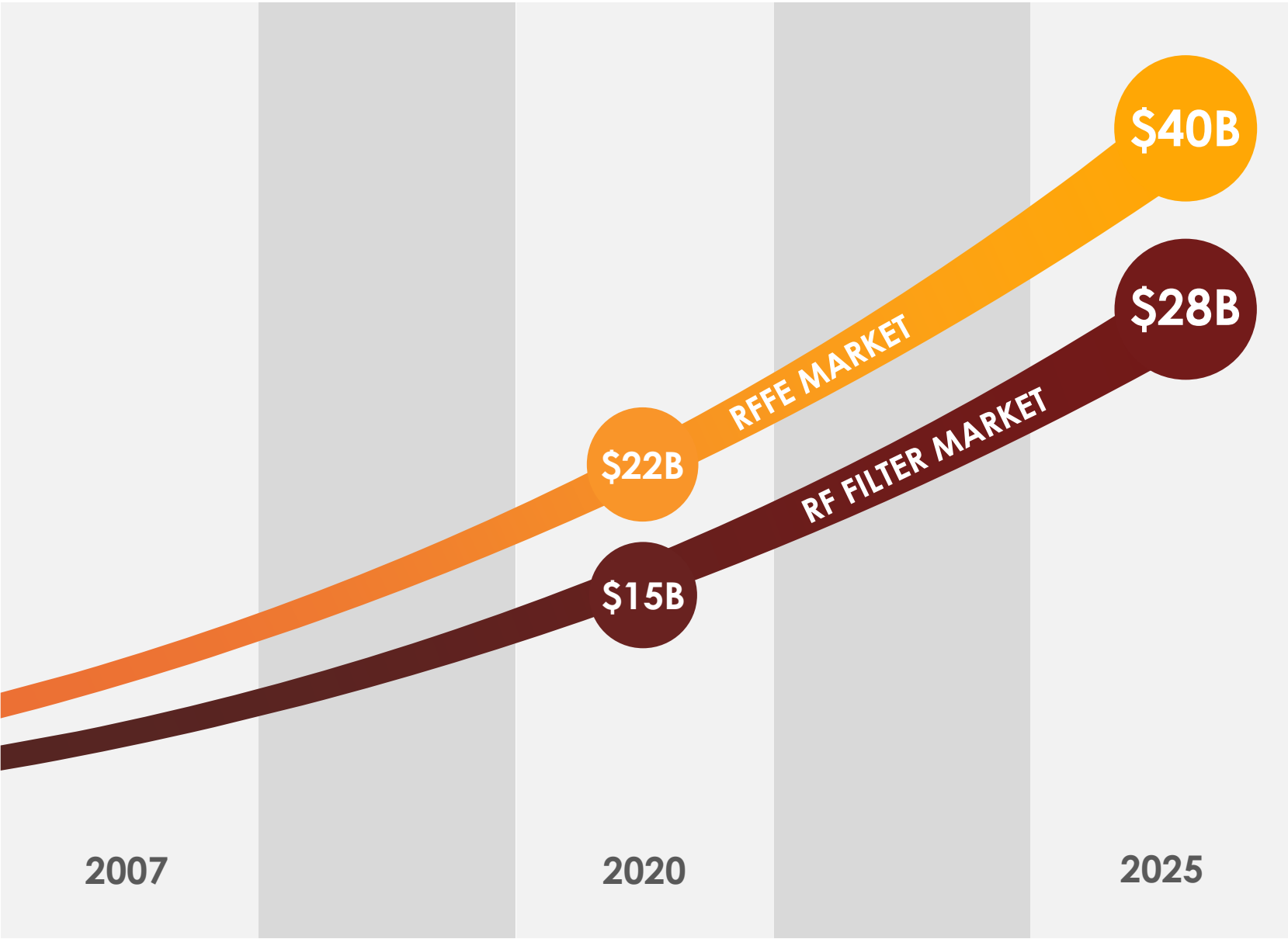
## TARGETING HIGH-GROWTH MARKETS

### COMPLEMENTARY REVENUE STREAMS:

- 1 Custom & library designs:  
Royalty per unit shipped
- 2 Cutting-edge, off-the-shelf  
designs: Prepaid royalty
- 3 Foundry supply chain:  
Licensing revenue and  
white label sales

LEVERAGING DIVERSIFIED PRODUCT PORTFOLIO,  
REVENUE STREAMS, AND ENGAGEMENTS

RFFE Components Market



# DIVERSIFIED REVENUE STREAMS

## HIGH-GROWTH MARKETS | 5G

### XBAR®

- Filters in development with industry leader
- High-bandwidth, high-power needed for 5G applications
- Low-cost manufacturing techniques
- First non-mobile samples expected in first half of 2020

5G

### MARKET REALITY

- Increased number and more complex filters
  - More than 100 filters<sup>1</sup> per phone
  - Fastest growing segment of the RFFE market, 15 billion today to \$28 billion in 2025<sup>2</sup>

### SOLUTION

#### XBAR®

- Proprietary technology, >60 patents filed & issued
- Demonstrated industry-leading performance
- Solutions for mobile and infrastructure

DELIVERING DESIGNS THAT MEET THE EXACTING DEMANDS FOR ENTIRE WIRELESS SPECTRUM



RESONANT®

<sup>1</sup> Sources: Projections based on Yole Developpement, Navian, Resonant Management estimates.

<sup>2</sup> Sources: Yole Developpement.



# DIVERSIFIED REVENUE STREAMS

## HIGH-GROWTH MARKETS | 4G

### Disruptive supply chain – Foundry Program

- Low-cost solutions with high performance

### Multiple revenue streams from existing players and new entrants

- Foundry partners leveraging Resonant's off-the-shelf designs, ISN tools, and services

# 4G

### MARKET REALITY

Transition to 5G drives continued 4G RFFE market growth

- Majority of mobile filters remain 4G
  - Market will commoditize
  - Re-farming of 4G spectrum
  - 4G provides backstop for 5G coverage

### SOLUTION

#### Infinite Synthesized Networks (ISN®)

- High volume of designs
- Off-the-shelf designs and foundry model
  - Low cost and high-quality

COMMODITIZING OF 4G FILTERS REQUIRES NEW SUPPLY CHAIN MODEL

# FOUNDRY PROGRAM

## TRANSFORMING THE MOBILE FILTER SUPPLY CHAIN

- Growing addressable market
  - Enables new market entrants access to high-quality, low-cost RF filters
- Stable and experienced supply chain
  - 5 filter companies currently comprise 80% of fab market<sup>1</sup>
- Leverage Resonant's design portfolio
  - Complex duplexers and quadplexers
  - Fast and predictable delivery times



# MOMENTUM ACCELERATES

## NOTABLE TRACTION IN THE MARKET

### WORLD'S LEADING RF FILTER MANUFACTURER

- In 2019, the world's leading RF filter provider entered into a \$9M commercial agreement with Resonant for the rights to develop multiple designs using Resonant's XBAR technology
- Upon signing the agreement, the customer completed a \$7M investment in Resonant

“**XBAR technology** is expected to achieve **higher frequency and superior performance** to other filter technologies, in **particular for new 5G filter requirements**

SVP of Customer

RESONANT CONTINUES TO TARGET  
WIFI/CPE AND INFRASTRUCTURE (SMALL  
CELL) APPLICATIONS FOR XBAR

### TIER 1 CHINESE FOUNDRY

- In January 2020, Resonant signed multiple license agreements for prepaid royalties and upfront payments with a new China-focused filter foundry partner
- Customer licensing Resonant's Process Monitoring Tool (PMTx) module of ISN

“**Resonant's technology and expertise** will help us build our complete technology **foundation** for providing full filter technology foundry service to global fabless and OEM customers

CEO of Foundry Partner



# EXECUTIVE TEAM



**George B. Holmes**

Chairman  
& CEO

30+ years leadership in  
sales & marketing and  
management



**Marty McDermut**

CFO

30+ years in financial and  
accounting management;  
CPA



**Dylan Kelly**

COO

20+ years in engineering,  
product marketing and  
manufacturing



**Bob Hammond**

Co-CTO  
& Co-Founder

20+ years in advanced  
product development  
Ph.D. Caltech



**Neal Fenzi**

Co-CTO  
& Co-Founder

20+ years in engineering,  
operations and marketing  
positions at STI; BSEE

