



Corporate Presentation

March 2015

# 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 (particularly as a new public company); our ability to complete designs that meet customer specifications; the ability of our customers (or their manufacturers) to fabricate our designs in commercial quantities; 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.

# Corporate Overview



**NASDAQ: RESN**

**Headquarters: Santa Barbara, CA**

**Employees: 20 (at 12/31/14)**

**IPO 5/29/14 @ \$6/share**

**Resonant** is a late-stage development company creating innovative filter designs for radio frequency (RF), front-ends for the mobile device industry.

**Resonant** uses a fundamentally new technology called Infinite Synthesized Networks®, or ISN®, to configure and connect acoustic resonators, which are the building blocks of RF filters.

## At February 27, 2015

Share Price	\$10.40
Market Cap	\$71.8 M
Shares Outstanding	6.9 M
Public Float	5.2 M
Insider Ownership	15.2%
Fully Diluted Shares Outstanding*	8.7 M

\*Includes 1.04M warrants + 759K options/RSUs

# Investment Summary

We have invented a disruptive circuit design platform



## Infinite Synthesized Networks (ISN)

- New method of designing RF filters that can displace conventional filters
- Can combine multiple RF filters into one

## Target Market: Mobile Devices

- Lower costs, smaller sizes, improved performance
- Fewer components would dramatically simplify the mobile device supply chain

## Unique Intellectual Property

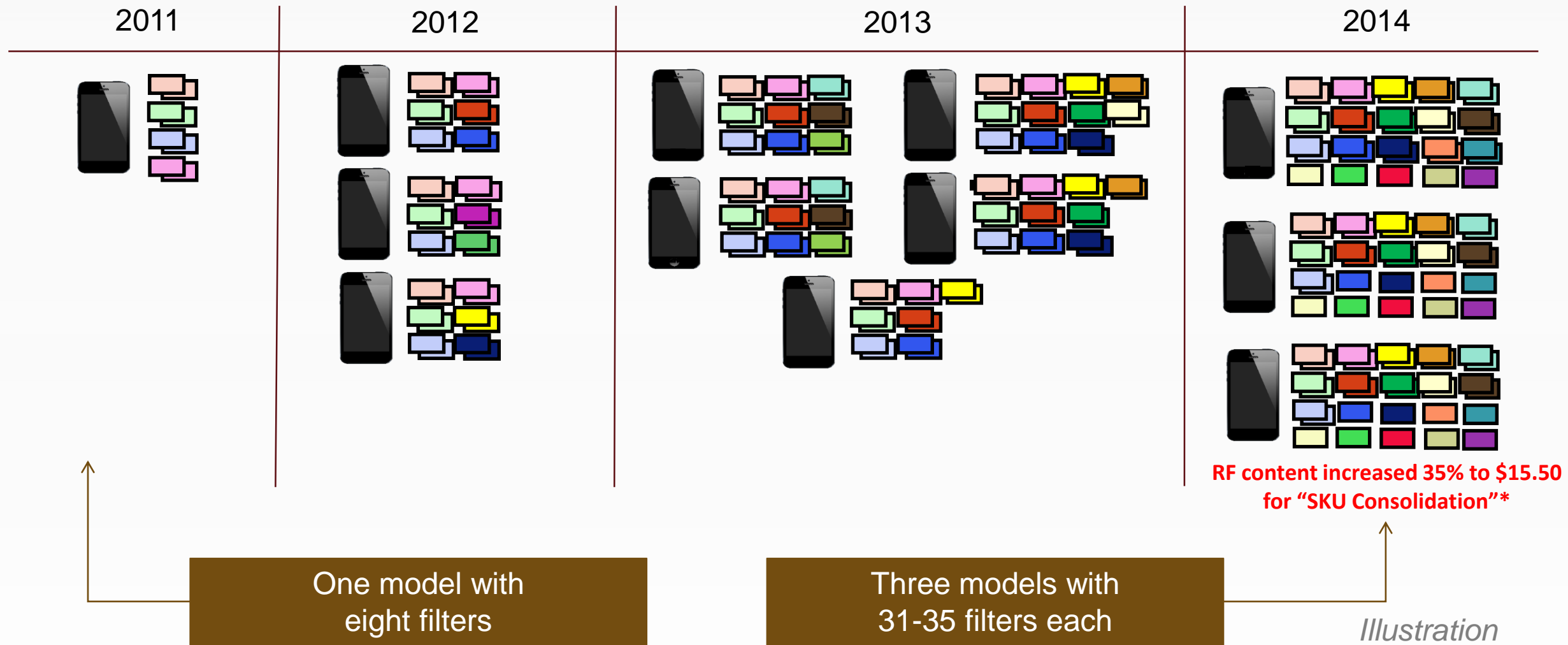
- Biggest fundamental change to mobile device filter design in 80+ years
- Aggressively patenting all elements of the ISN system

## Licensing Business Model

- Developing 1st commercial designs in collaboration with leading supplier of front-end market
- In discussions with other potential licensing partners

# The Challenge: Need for A Greater Number of Mobile Data Filters

As carriers use more data bands, mobile devices need more filters



# State of the Filter Industry

Filter circuit design has not advanced significantly in 80+ years



## Current process



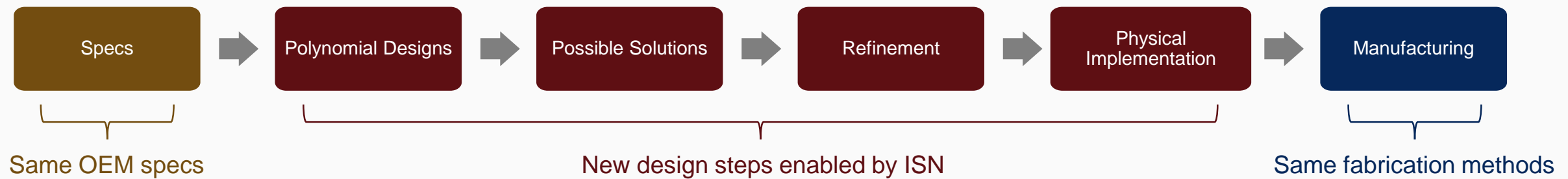
Mobile device suppliers are trying to solve a 21<sup>st</sup> century problem with a design based on 1920s technology

# Our New Design Paradigm

ISN<sup>®</sup> is a comprehensive suite of circuit design methods and tools



## ISN enables several new design steps



Our team created ISN from 2005 through 2010 at Superconductor Technologies, Inc. (STI)

- STI makes the world's highest-performance RF filters (for telecom base stations)
- We found that ISN designs could also work with non-superconducting materials
- We spun Resonant out of STI in July 2012

# Commercialization Strategy

We are pursuing two RF filter markets



## Single Band Designs: Improve Existing Filters

- Traditional surface acoustic wave (SAW) filters struggle in “hard bands”
- Therefore, manufacturers use more expensive bulk acoustic wave (BAW) filters
- ISN can improve SAW filters to work in difficult bands

## Tunable Designs: From Many Filters to One

- A filter that can “tune” to multiple bands could replace several existing filters
- This would result in significant size and cost savings
- We believe ISN can create such a “tunable” filter



# Single Band Designs

Single Band

Tunable Designs

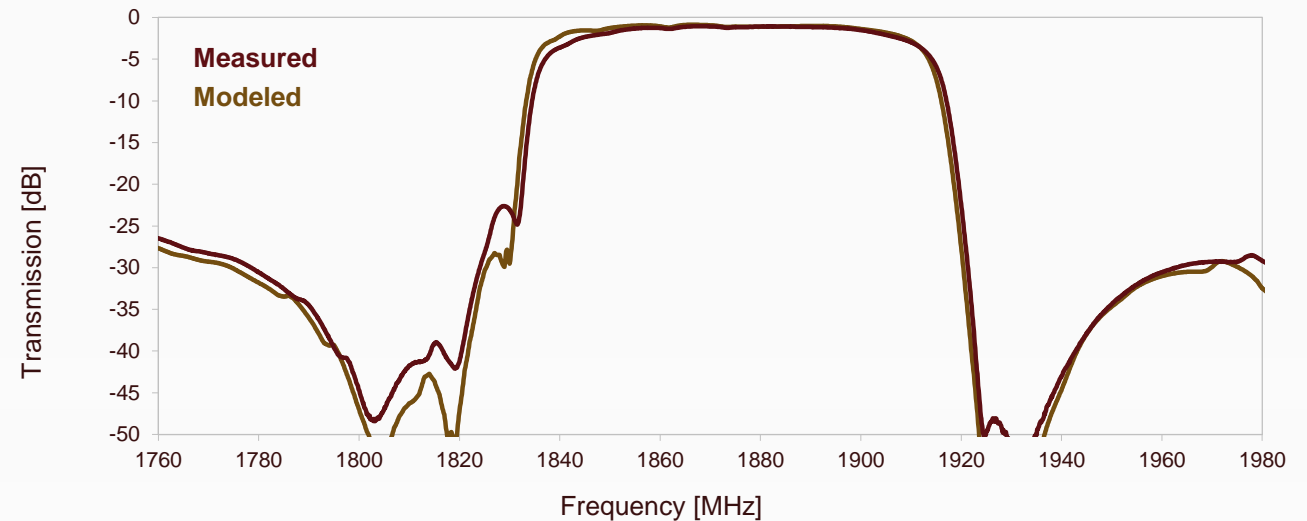


Initial filters show great promise on both performance and price

Our initial SAW  
demonstration duplexer...



... had almost perfect alignment with what our  
ISN model predicted



Avg. Cost of BAW Duplexer*	\$0.62
Avg. Cost of SAW Duplexer*	\$0.28
Difference (Enabled Margin)	\$0.34

Projected Filter Market:  
20 billion units in 2014  
Growing to 35 billion units by  
2017\*

\* Navian Research, 2013



# Our First Single Band Design

- We are collaborating with a leading supplier for the front-end market
- Three years of diligence before entering development agreement
- In Q1 2015, we delivered a completed duplexer design to our first customer for consideration
- They can elect to license our design under pre-negotiated financial terms; otherwise, we are able to license the design to other potential customers

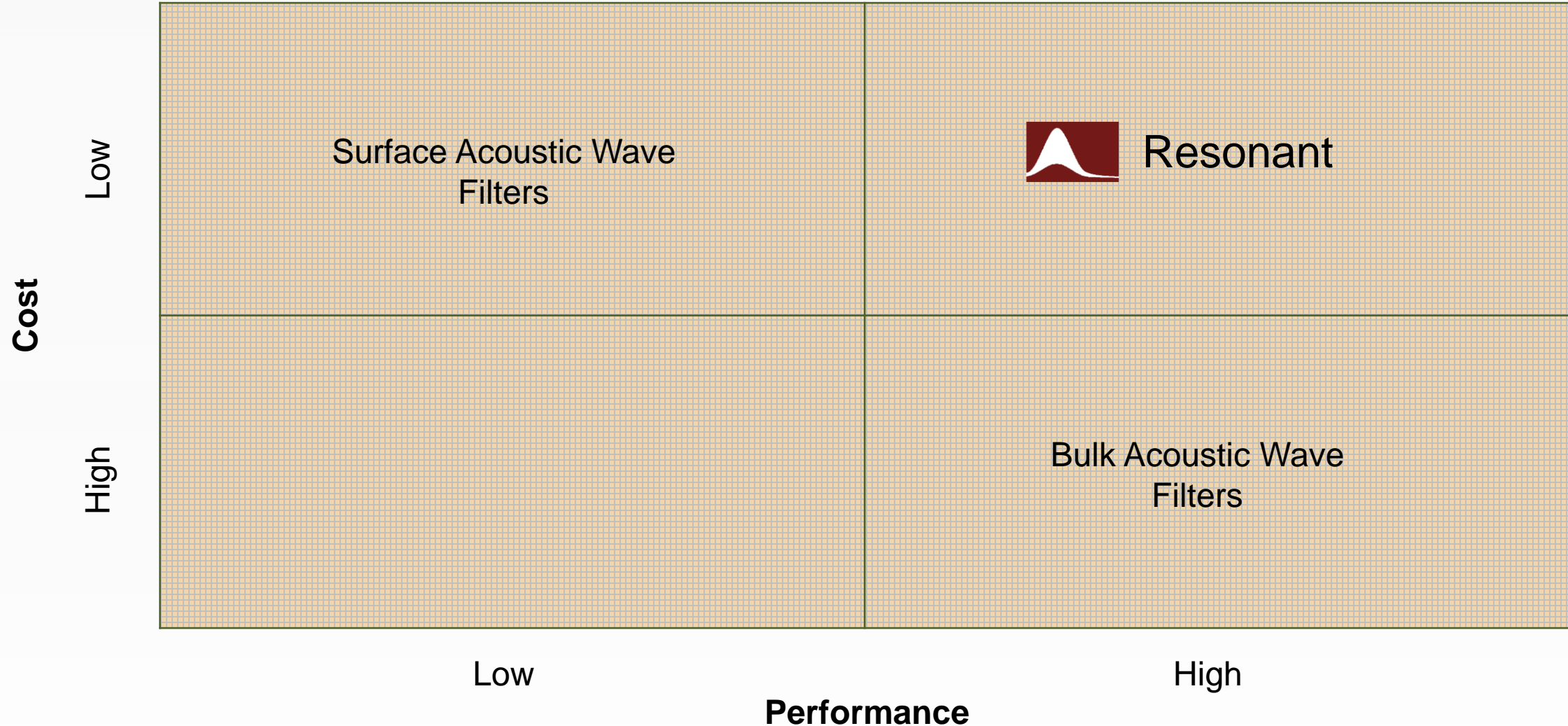
# Technology Landscape

Single Band

Tunable Designs



We will work to partner with key players in the RF filter marketplace



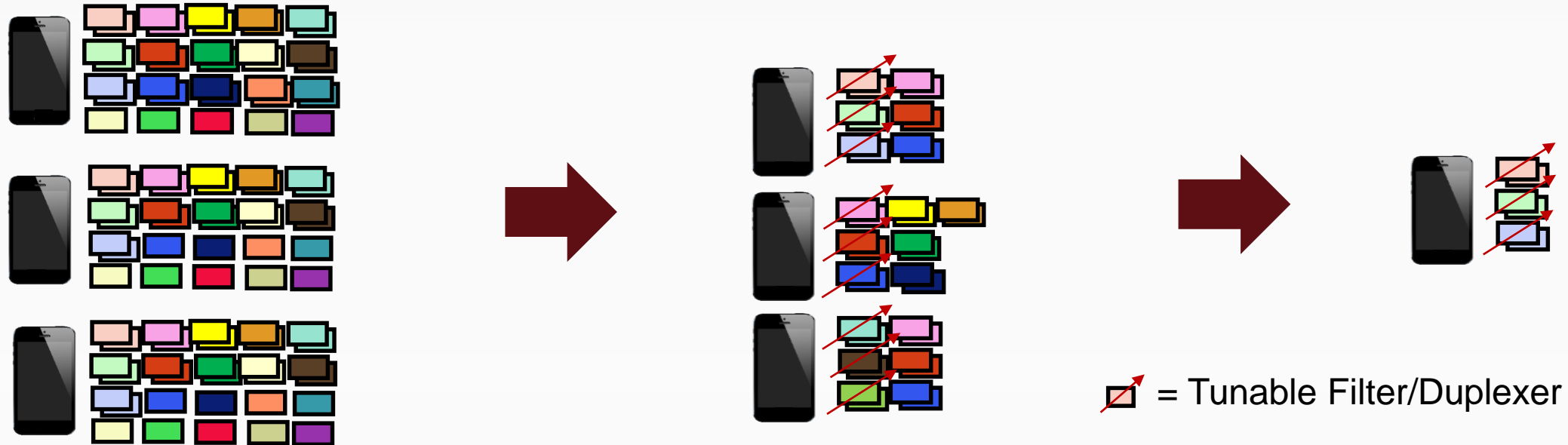
# Tunable Filter

Single Band

Tunable Designs



We plan to reduce front-end filters using tunable filters



Cost Filter Set (2017)*	\$1.85
Cost of Tunable Filter (Projected)	< \$1.00
Difference (Enabled Margin)	> \$0.85

We may also be able to reduce the number of power amplifiers and switches, which would result in a greater enabled margin

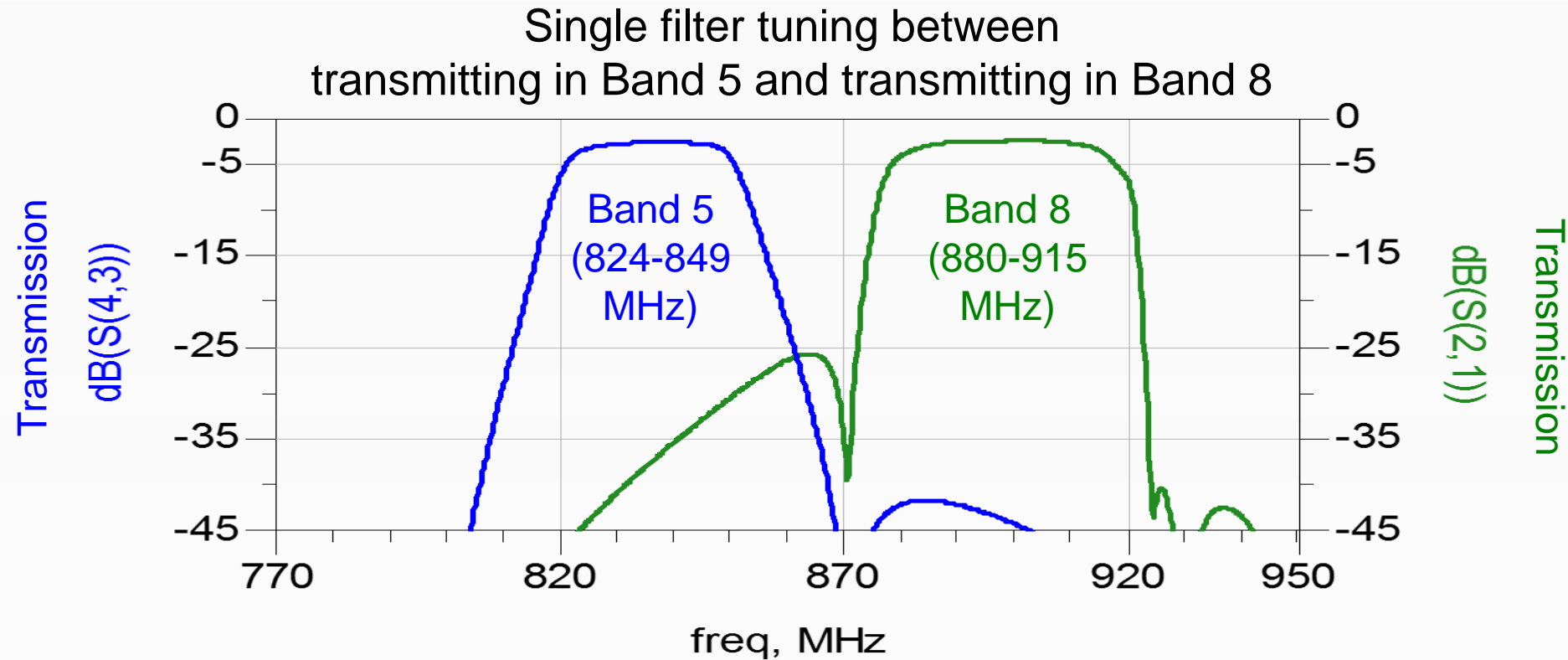
\* Navian Research, 2013

# Our Initial Results

We have demonstrated a prototype two-band tunable filter

Single Band

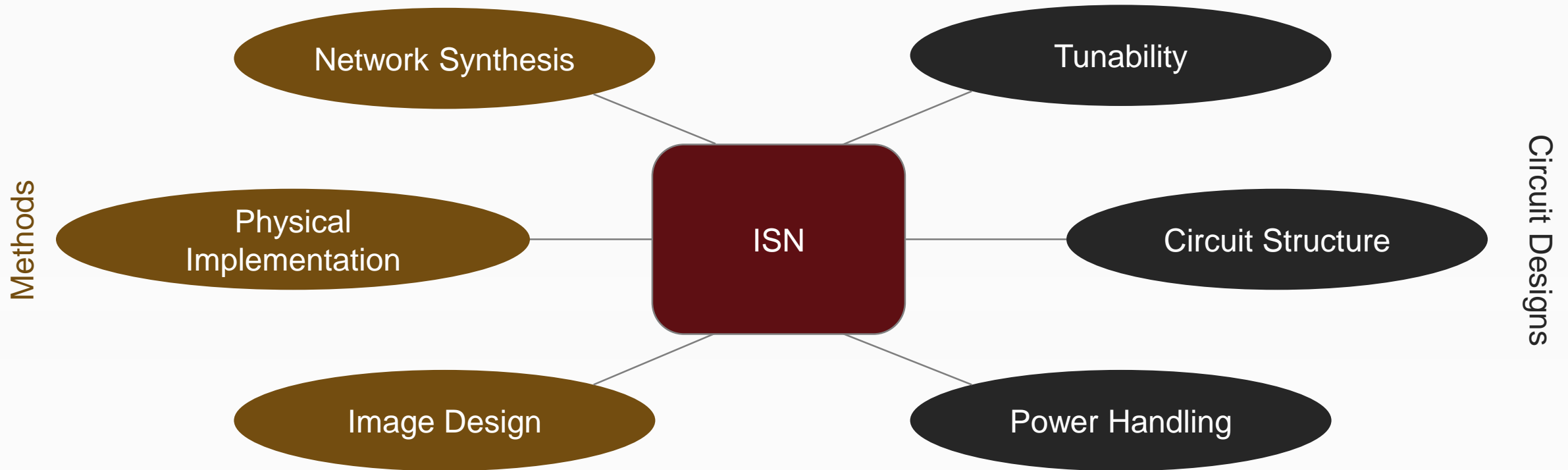
Tunable Designs



Initiated the design of a tunable filter prototype in 4Q14

# Our Patent Strategy

Six patent families protect our methods and circuit designs



- 50 issued and pending patents
- Patent portfolio is expected to continue to expand

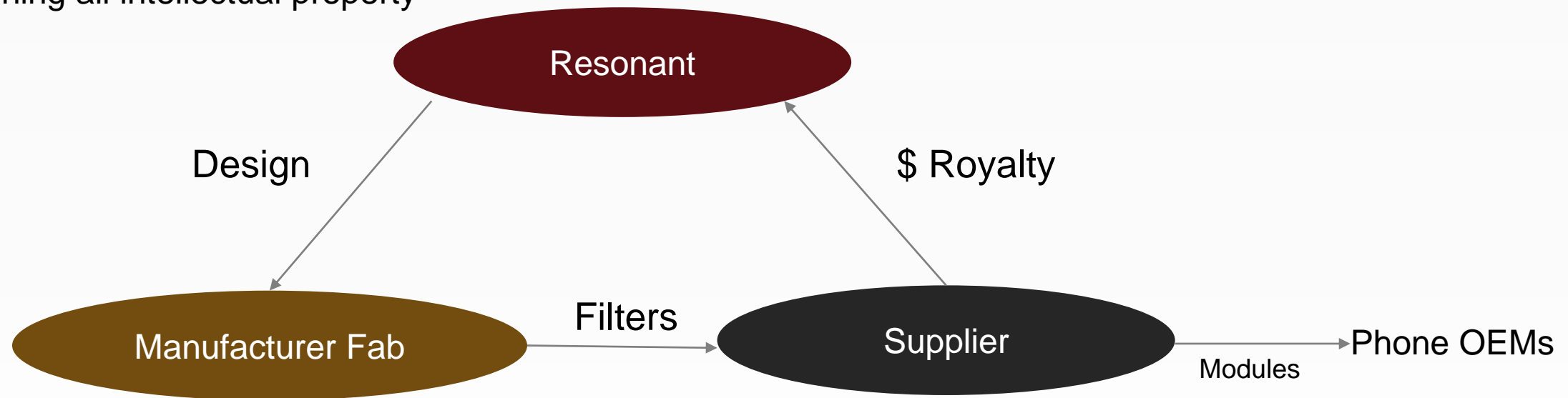
# Business Model



We intend to license our designs to manufacturing partners

Our strategy encompasses:

- Licensing our custom designs to suppliers for a per-unit royalty
- Not manufacturing physical product
- Utilizing existing manufacturing fabs
- Generating high gross margins
- Retaining all intellectual property



# 2015 Key Milestones

## Clear Pathway to Growth























- Achieve first product “Design Completion” in 1Q15
- Expand customer base (add one or more customers) and have multiple product development projects underway by year end
- Commence generating revenue in 2H15
- Complete tunable prototype design by year end
- Double technical staff to 20 by year end



# Management Team & Board of Directors



NAME	BACKGROUND	SELECTED CURRENT and PAST AFFILIATIONS		
<b>Terry Lingren</b> CEO, Chairman & Co-founder	20+ years experience as a senior technology executive; BA Physics; MSEE			
<b>John Philpott</b> CFO	20+ years financial and accounting management experience; MBA UCLA			
<b>Bob Hammond</b> CTO, Director & Co-founder	20+ years as Founder and CTO of STI; Physics Ph.D. Caltech			
<b>Neal Fenzi</b> COO & Co-founder	20+ years in engineering, operations and marketing positions at STI; BSEE			
<b>Mike Eddy</b> VP, Marketing	Founder and President of ANTONE Wireless; STI; Chemistry Ph.D. Oxford; MBA			
<b>Dan Christopher</b> VP, General Counsel & Secretary	25+ years public company experience; BSEE Villanova; JD Columbia Law			
<b>John Major</b> Independent Director	Multiple board memberships with public and private high-tech companies			
<b>Rick Kornfeld</b> Independent Director	VP Engineering and leader of first CDMA effort at Qualcomm; Serial Entrepreneur			
<b>Janet Cooper</b> Independent Director	Financial expertise in capital markets, audit, tax, accounting, treasury and risk-management	