

# **Annual General Meeting**

**Anthony Sethill, CEO**

*14<sup>th</sup> June, 2013*

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1. Overview
2. Digital radio
3. Connected audio
4. Wireless healthcare
5. Summary

# The Toumaz Group underwent a transformation in 2012

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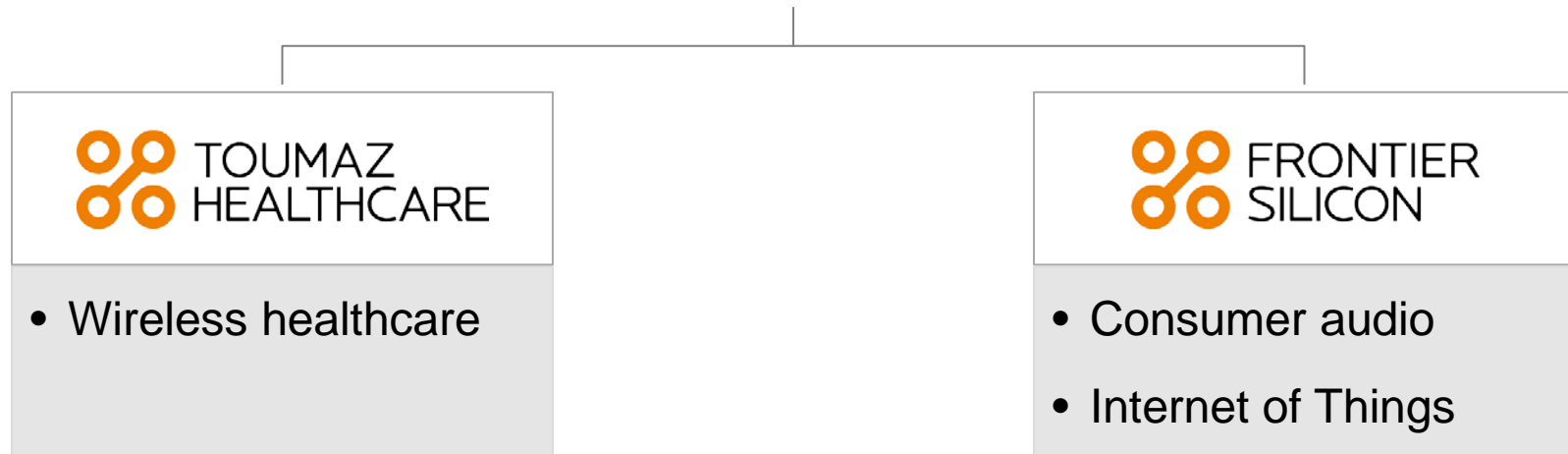
## Acquisition

- Toumaz acquired Frontier Silicon in August 2012
- Toumaz: innovative developer of wireless healthcare solutions
- Frontier Silicon: market leader in chips / modules for digital radio

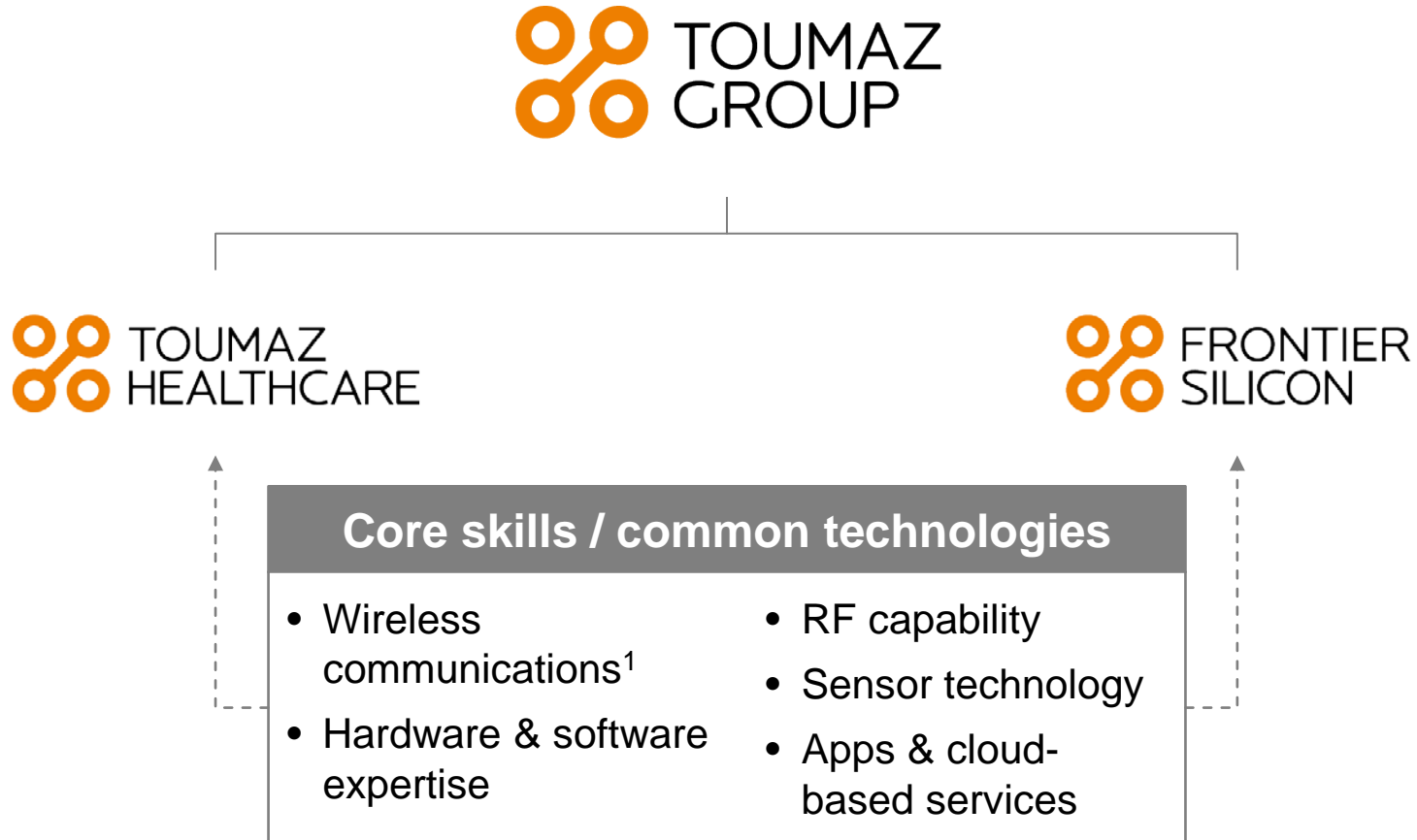
- Semiconductor company focused on low power wireless connectivity for
  - consumer audio / Internet of Things
  - professional healthcare applications
- Group revenues: \$35m (pro forma)
- Core assets
  - shared technology base
  - systems, operations and commercial infrastructure

# The Toumaz Group has two divisions

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# The businesses share technologies, expertise & infrastructure



(1) More than 100 man years' experience of major wireless technologies, including Wi-Fi, Bluetooth, 802.15.6

# Group presence in Asia and Europe



- 180 employees in five countries (100 focused on core development)
  - UK: HQ, core development and operations
  - Romania: software development
  - Hong Kong, China & Japan: engineering, sales & support, manufacturing operations

# The business is investing for growth

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## Revenues

- 2012 revenues of \$35m (pro forma)<sup>1</sup>
    - predominantly from digital and connected audio
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## Development

- Three major IC developments for digital radio, connected audio and wireless healthcare - investing over \$15m in 2013
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## Prospects

- Targeting sectors with high growth potential
- Exploiting existing market leadership positions, world class technology capability and extensive IP portfolio
- Adding skills and expertise through acquisition of talent

# Three significant IC developments under way

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## Digital radio

- Chorus 4: multi-standard chip aiming to
    - drive growth of digital radio through greater cost parity with FM/AM
    - address digital radio markets in North America (HD) and India (DRM)
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## Connected audio

- Symphony: wireless connectivity for mass market high quality audio
    - Wi-Fi and Bluetooth
    - platform to address Internet of Things
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## Wireless healthcare

- Wireless connectivity for professional healthcare (replacing cabled monitors)
  - 802.15.6, new IEEE dedicated standard for professional healthcare
  - offers low power, reliable, secure streaming



# Progress to date

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## Team

- Strengthen management team
    - Anthony Sethill, CEO; Jonathan Apps, CFO
    - Steve Atkinson, SVP Toumaz Healthcare; Jim Nicholas, VP Marketing
  - Reorganise engineering resource, e.g. new software team in Romania
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## Roadmap

- Prioritise investment in chosen markets
  - Agree roadmap plans for next 18 months
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## Imagination Technologies

- Ensure alignment of roadmap development
  - Pool resources to optimise costs
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## Systems & branding

- Integrate two sets of company systems
  - Prepare new corporate branding and website
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# Frontier Silicon – leading provider of solutions for digital radio

• 80% share of consumer devices<sup>1</sup>



• Over 20m modules shipped

Portable radios

Home audio systems

Clock radios & docks

In-car



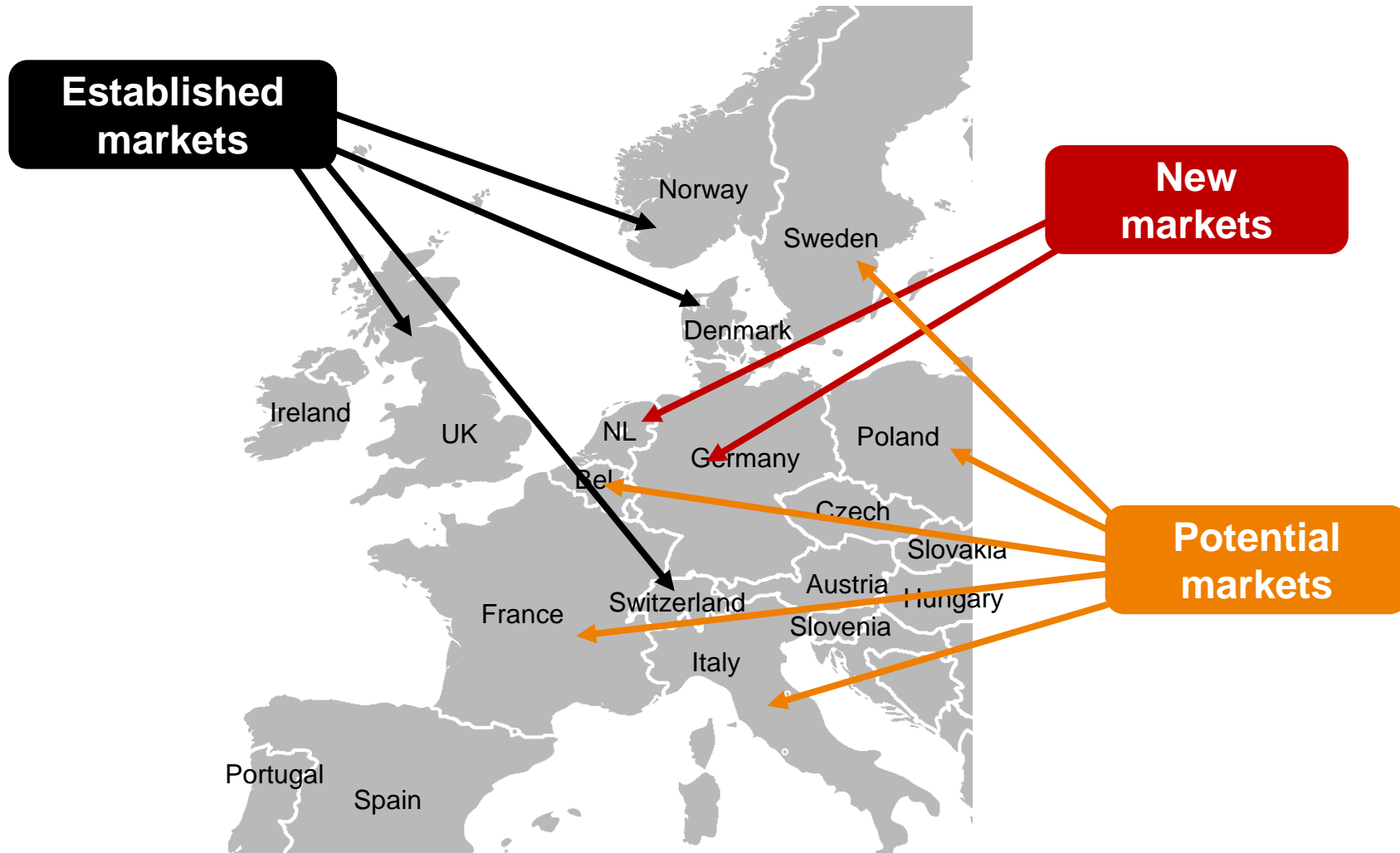
(1) Global market for in-home DAB / DAB+ receivers (management estimate)

# We supply leading brands, often on exclusive basis

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# A digital radio wave is moving across Europe



# UK on track for positive decision for Digital Switchover

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## D Love – digital radio evangelist



- Announcement expected 18<sup>th</sup> Nov
- Progress in key areas
  - digital listening now up to 34.3%<sup>1</sup>
  - coverage (national and local)
  - 35.4% of new cars now with DAB<sup>2</sup>
  - Digital Tick scheme prepared

# Germany – building momentum

## MediaMarkt, Berlin, March 2013



- Total market sales since Aug 2011: 600k
- Q1 sales up 69% yoy<sup>1</sup>
- ARD and private broadcasters increasing promotion of DAB+

(1) Source GfK

# Other territories

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**Norway / Denmark** • DSO targets on 2017 and 2019 respectively

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**Australia** • Market volumes in Q1 up 7% yoy – running at >400k p.a.<sup>1</sup>

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**Switzerland** • Cumulative market sales: 1.1m digital radios – 270k in 2012<sup>1</sup>

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**Netherlands** • Launch DAB+ in September

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**France** • Services expected to launch in Paris, Nice and Marseille

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**Italy** • First services launched in Trentino – further roll-out expected

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**Sweden** • Decisions on DAB+ this year

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**India** • Roll-out of DRM transmitters has begun

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(1) Source GfK



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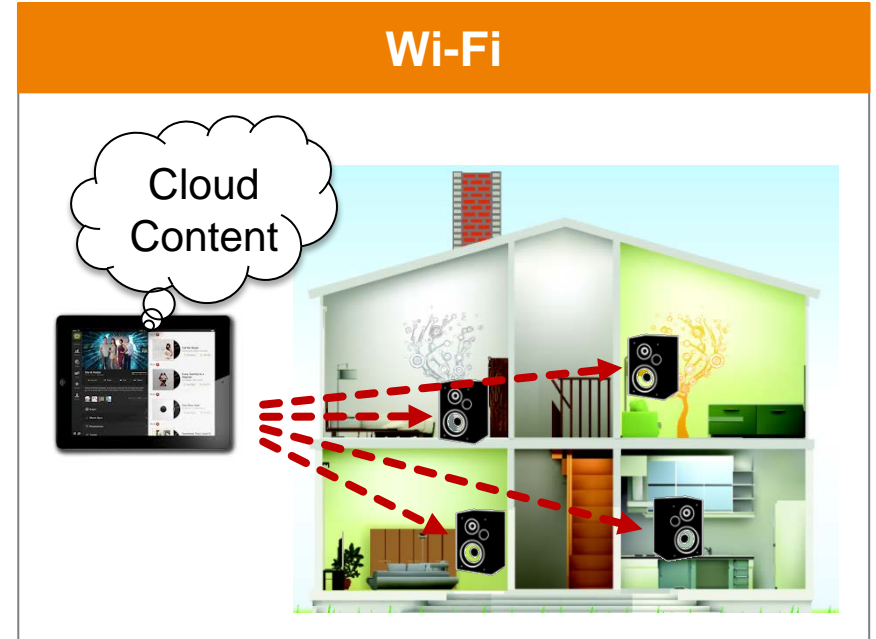
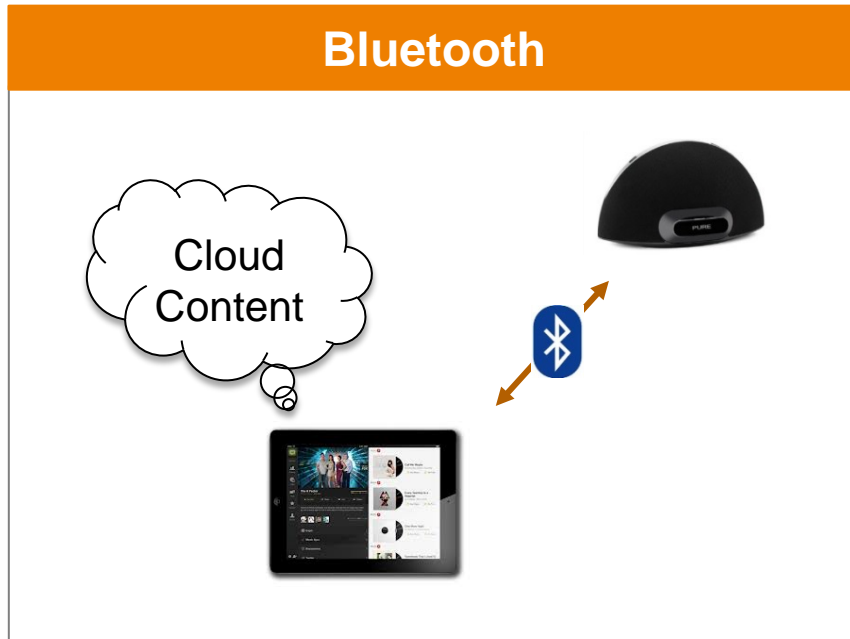


3. Connected audio

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# Connected audio is based on two standards: Bluetooth & Wi-Fi



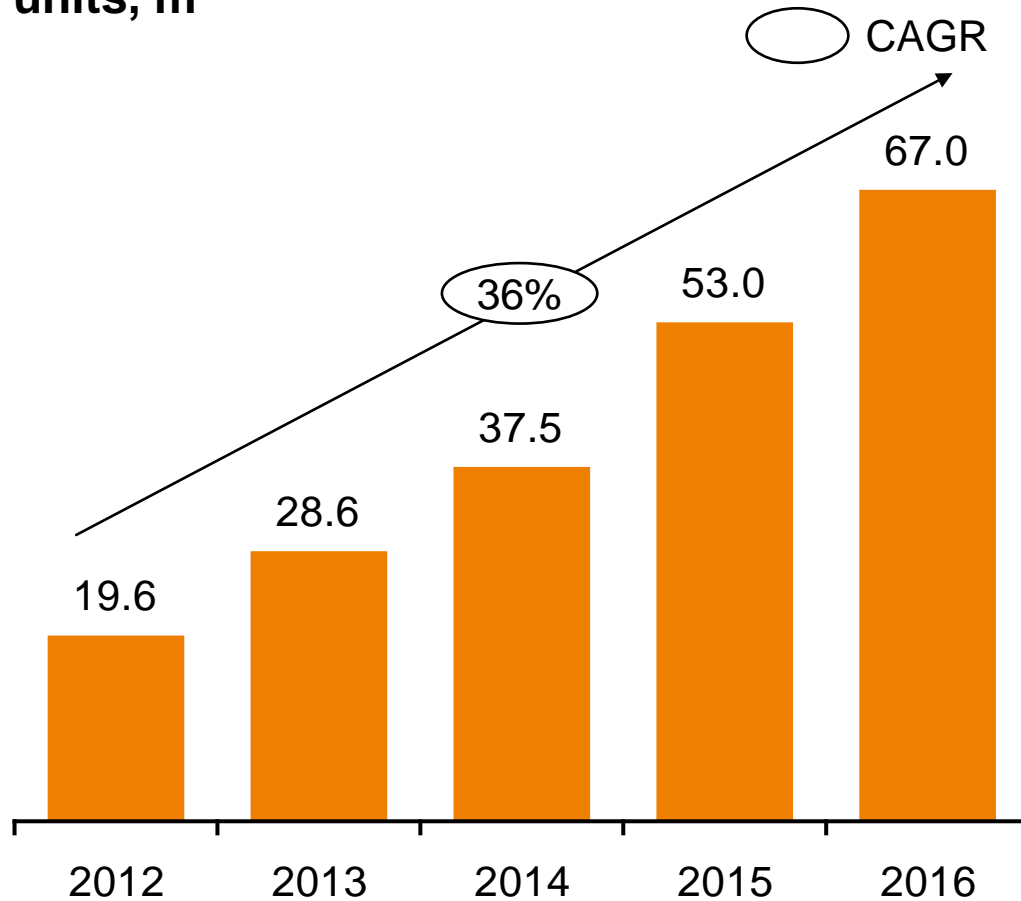
- Point-to-point connectivity, e.g. from smart device to speaker or radio (in same room)

- Connectivity to network of devices, e.g. multi-room speakers – plus richer audio experience

- *Both standards allow content streaming (from the cloud or locally stored)*
- *Smart devices can act as remote control*

# Home audio in transition from wired to wireless








Connected audio devices<sup>1</sup>, global forecast  
units, m



- By 2016, ~70% of new audio devices will be connected (<20% today)
- Growth of wireless audio driven by
  - penetration of smart devices
  - popularity of online music streaming, e.g. Spotify
  - lower cost / integrated solutions

(1) Speaker docks, home theatre systems, speakers, A/V receivers, mini-systems, networked audio players / adapters, multi-room audio systems. Source: Park Associates (Nov 2011)

# Focus on products for high quality, mass market audio

Module	Functionality	Wireless standard	Status
<b>Tuscany</b> 	Bluetooth & broadcast radio		<ul style="list-style-type: none"> <li>• Launch Sep 2013</li> </ul>
<b>Venice 6.5</b> 	Internet / broadcast radio (plus content streaming)		<ul style="list-style-type: none"> <li>• Launched Oct 2012</li> <li>• In discussions with potential content partners</li> </ul>
<b>Roma<sup>1</sup></b> 	Multi-room wireless speakers (plus content streaming)	 	<ul style="list-style-type: none"> <li>• Pure <i>Jongo</i> speakers launched Q1 2013</li> <li>• Available to 3<sup>rd</sup> party brands from Q4</li> </ul>

(1) Partnership with Imagination Technologies

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# In healthcare, Toumaz has two main offerings

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## SensiumVitals® system

- Wireless healthcare monitoring<sup>1</sup> for vital signs of general ward patients (heart rate, temperature and respiration)
  - takes measurements every two minutes
  - communicates wirelessly with hospital IT systems
- Early alerts reduce readmission to ICU / HDU / telemetry wards

## Wireless 802.15.6 chip

- In development - new global standard for wireless professional healthcare
  - multiple applications: SensiumVitals®, other health-related wireless monitoring
  - IEEE 802.15.6: robust, low power, secure

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(1) FDA cleared (July 2011)

# SensiumVitals pilot – successful validation

## St John's Health Center, Santa Monica



- Six month pilot (Oct 12 – Mar 13)
- 270 general ward patients monitored - first 170 included in white paper

- Medical and economic case clearly demonstrated
- Compelling clinical results
  - early detection of deterioration in patient's condition in significant number of patients
  - immediate intervention
  - improved patient outcomes
- Compelling health economic results
  - early detection enabled early intervention
  - avoided more expensive, acute care treatment
  - reduced hospital stay

# Clinical and health economic evidence

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## Clinical benefits

- Pilot aims - user acceptance of installation, functionality & utility: achieved / exceeded
- Condition of 12% of monitored patients deteriorated between routine observation rounds, and were captured by SensiumVitals®
- Proved need for SensiumVitals® on general med/surg wards for earlier patient treatment & improved outcomes

## Health economic benefits

- *“There is strong, unambiguous evidence that SensiumVitals® System is cost effective”* Dr S. Eapen, Analysis Group Inc, Boston
  - in-hospital stay reduced by average of six days (saving \$9,008 per patient<sup>1</sup>)
  - annualised saving of \$234,200<sup>2</sup> per ward vs annual cost \$30,000
- Deployment across healthcare systems around the world could save \$billions

(1) Health economic study by Analysis Group Inc, matched monitored patients to control group of 18,279 patients, by diagnosis & age, sourced from OptimumCare & Medicare databases. Initial data derived from 13 of 20 patients with deteriorations, analysis of others is ongoing. (2) Based on savings of \$117,100 over 6 months



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# Summary

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1. Business integration complete
2. Roadmap development – significant progress
3. Digital radio: markets poised for growth
4. Connected audio: Bluetooth and Wi-Fi solutions being launched in 2013
5. Wireless healthcare: pilot validates system performance

# Contact details

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