



# Creating New Business In a Large Company

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New Business Creation

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# Outline

Agilent Creating the Future of Measurement

Framework for Open Innovation

Case Studies

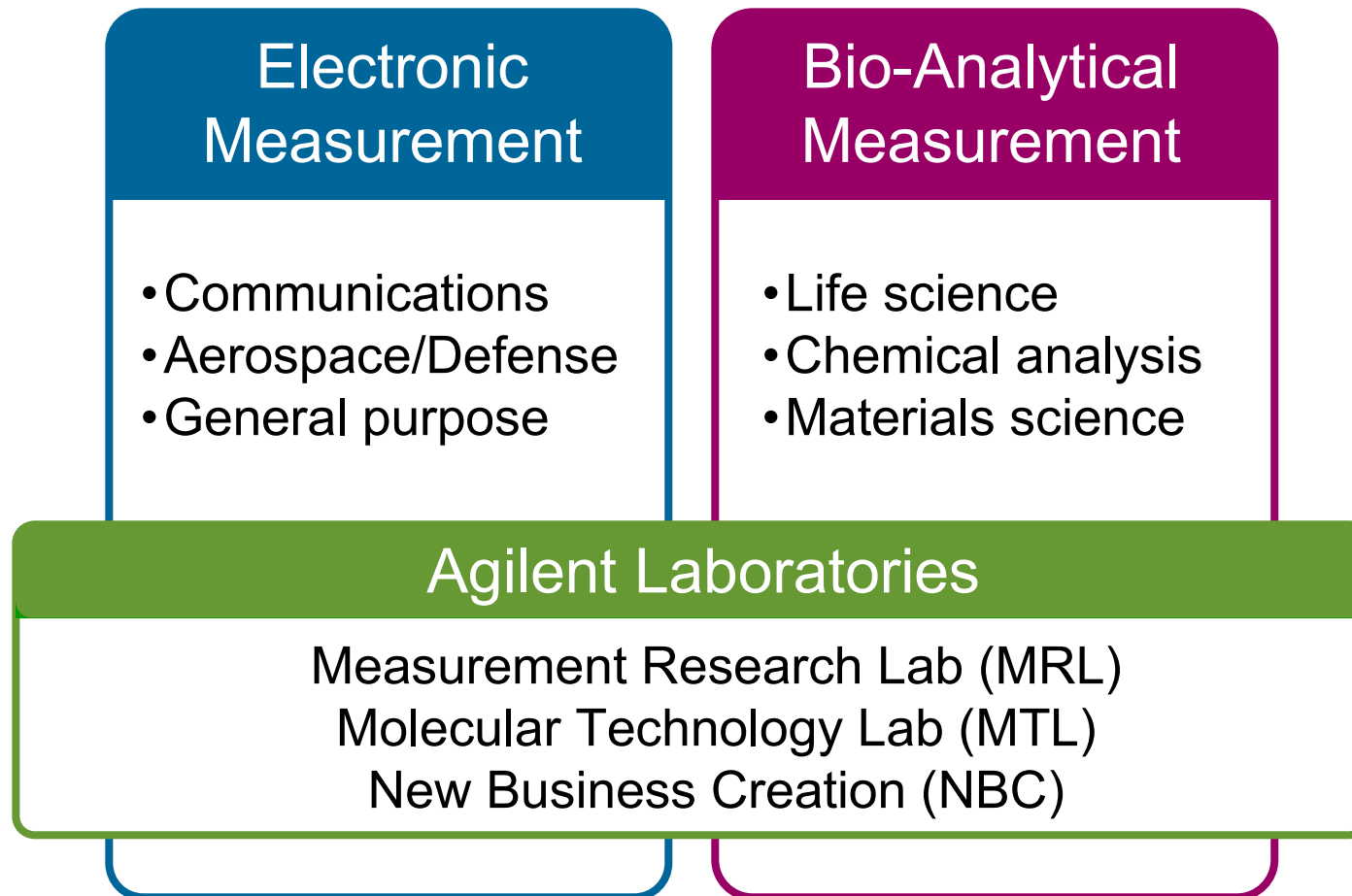
Summary

Q&A



# Agilent Market Focus

A \$44 Billion Measurement Market



# Agilent Laboratories

Represents 7% of Agilent's overall R&D

Locations: U.S., Europe, Asia

Breadth of scientific disciplines

Connected to leading external research organizations



Beijing, China



Santa Clara, California

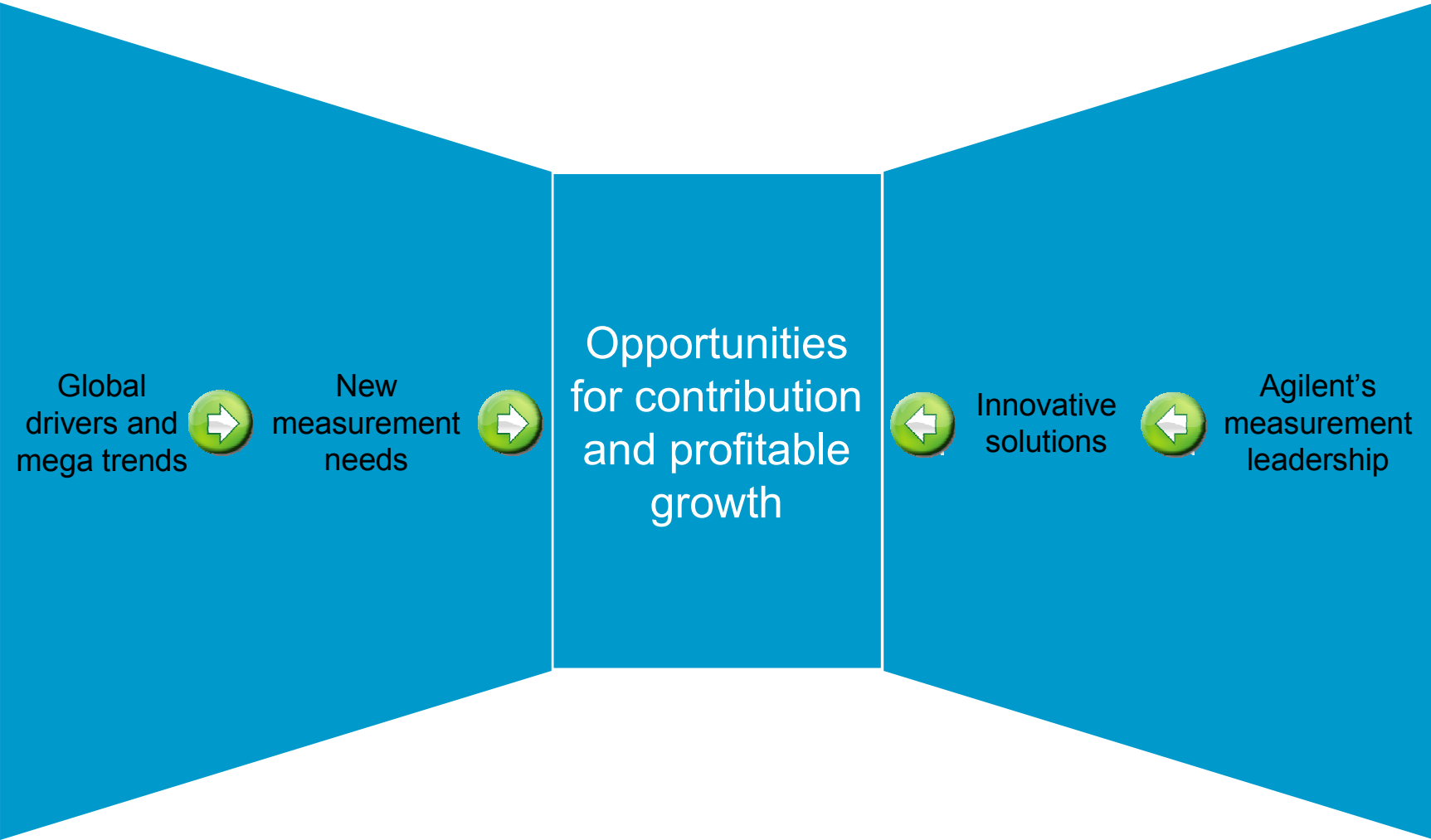


Leuven, Belgium

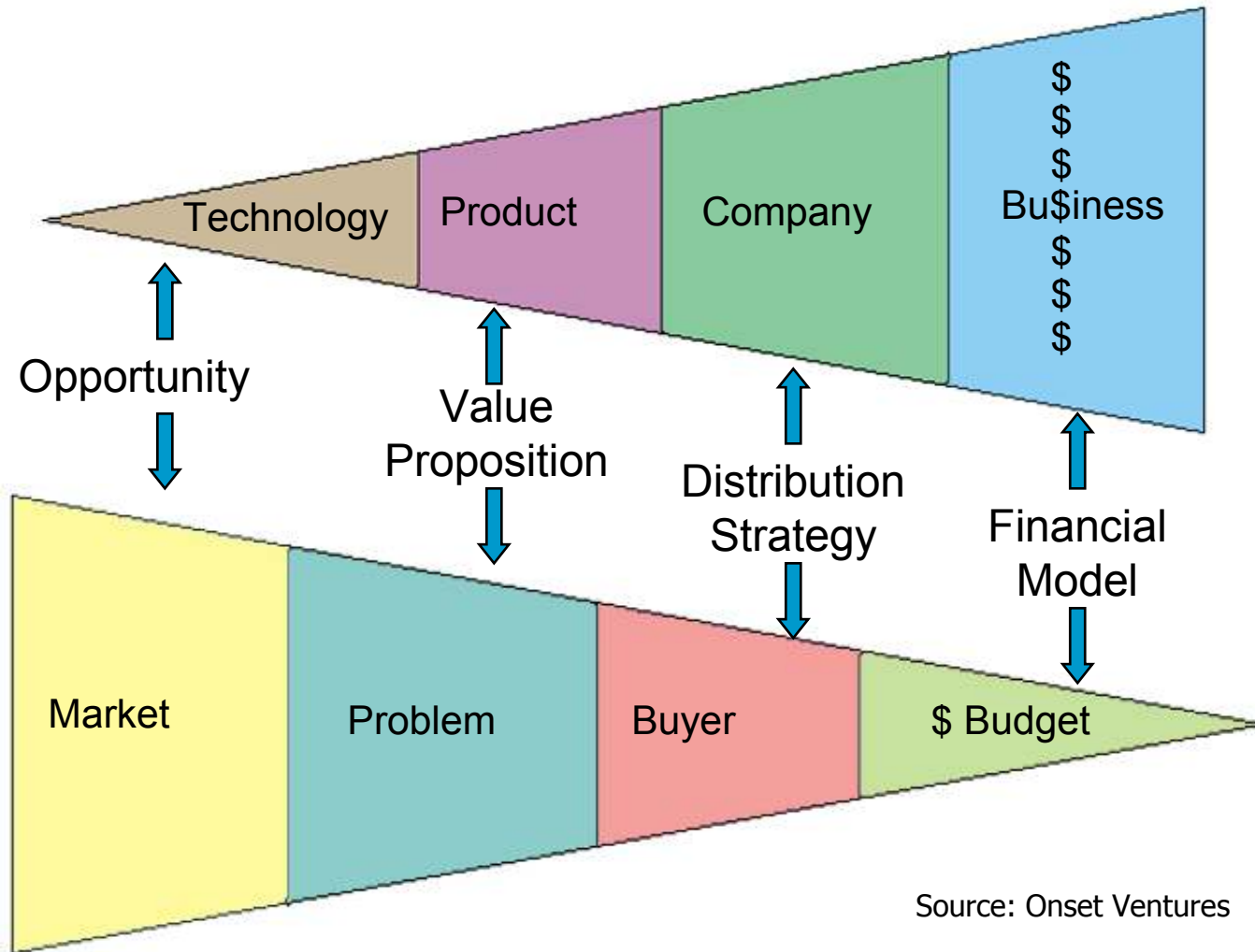


South Queensferry, Scotland

# Creating the Future of Measurement



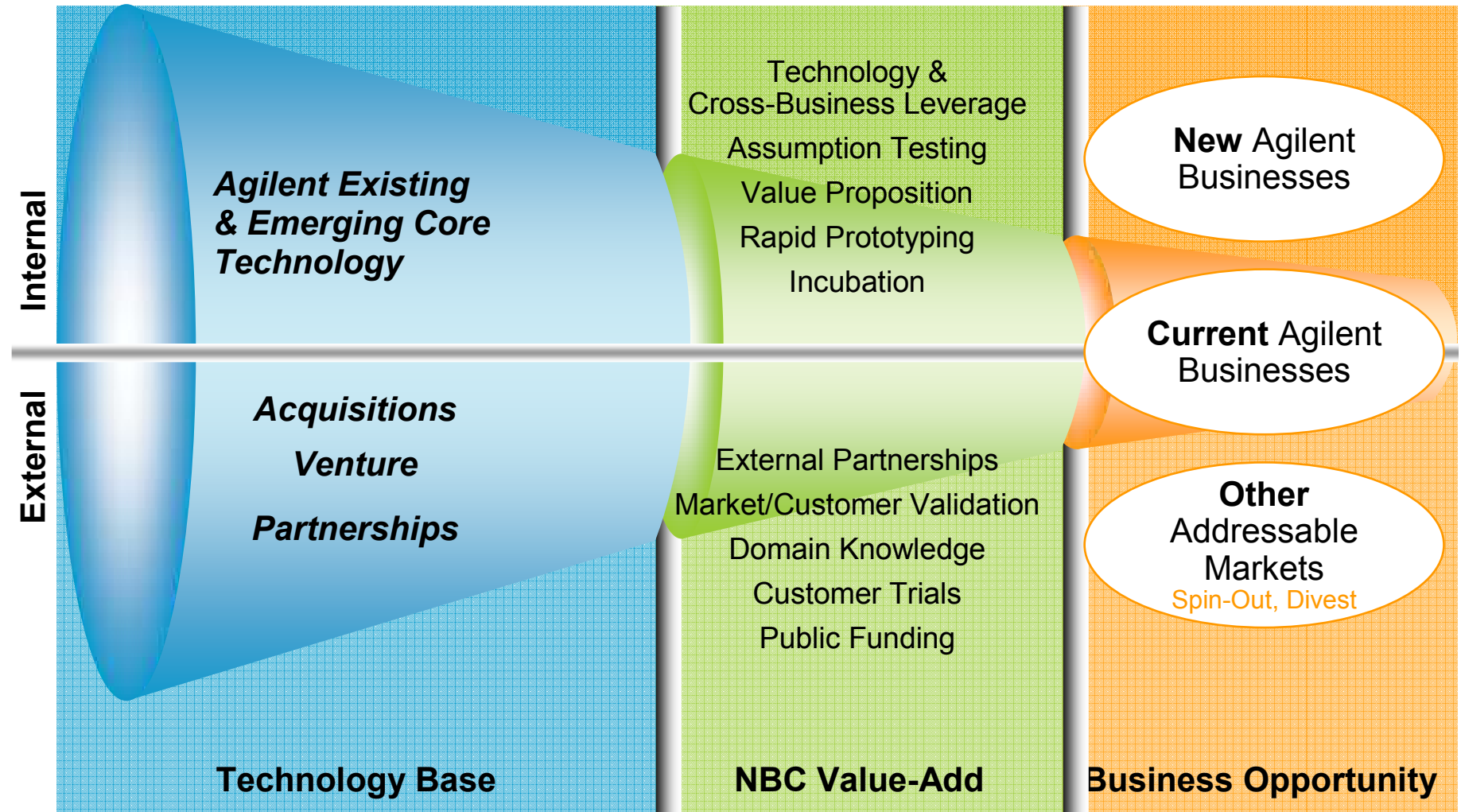
# System's View of Business Model



Source: Onset Ventures

# Framework for Open Innovation

Business & Technology, Externally Focused





# Open Innovation Case Studies

## Modified VC Approach

- “Deferred Options”

## Technology Collaboration

- Seek government grants
- Co-development with university

## IP Licensing

- Add internal technology
- Enter new market

## Internal Incubation

- Enter new markets with internal technology development

## \* Extend Market for Core Technology

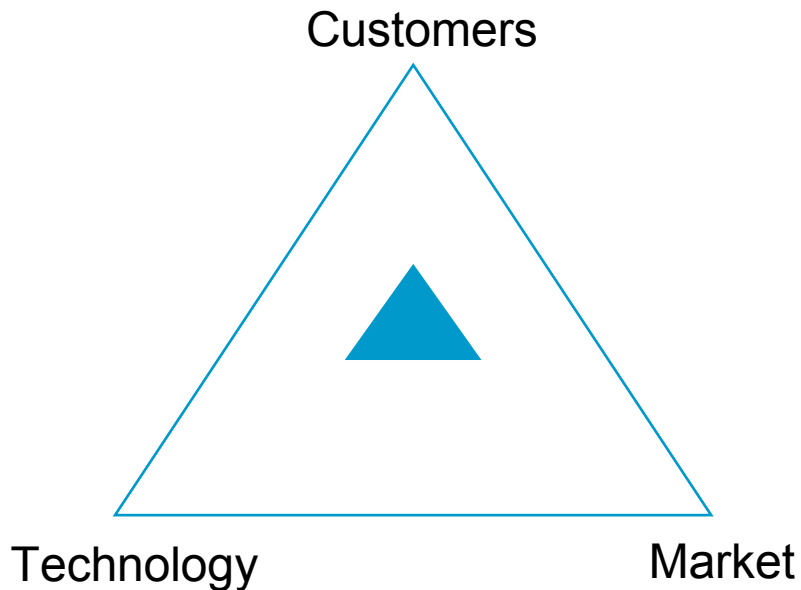
- Example of system thinking in the business process





# Case Study 1: Using Options

Investing to understand product and market risk in new market



Problems:

Most companies create a new business by expanding market, customers or technology.

Expanding on all three axes is very high risk.

Conventional VC equity investment does not create enough insight.

Agreement on technology collaboration alone does not assure the return on technology investment and tends to slow time to market.

## Results: Defer risk by locking in options early



### Solution:

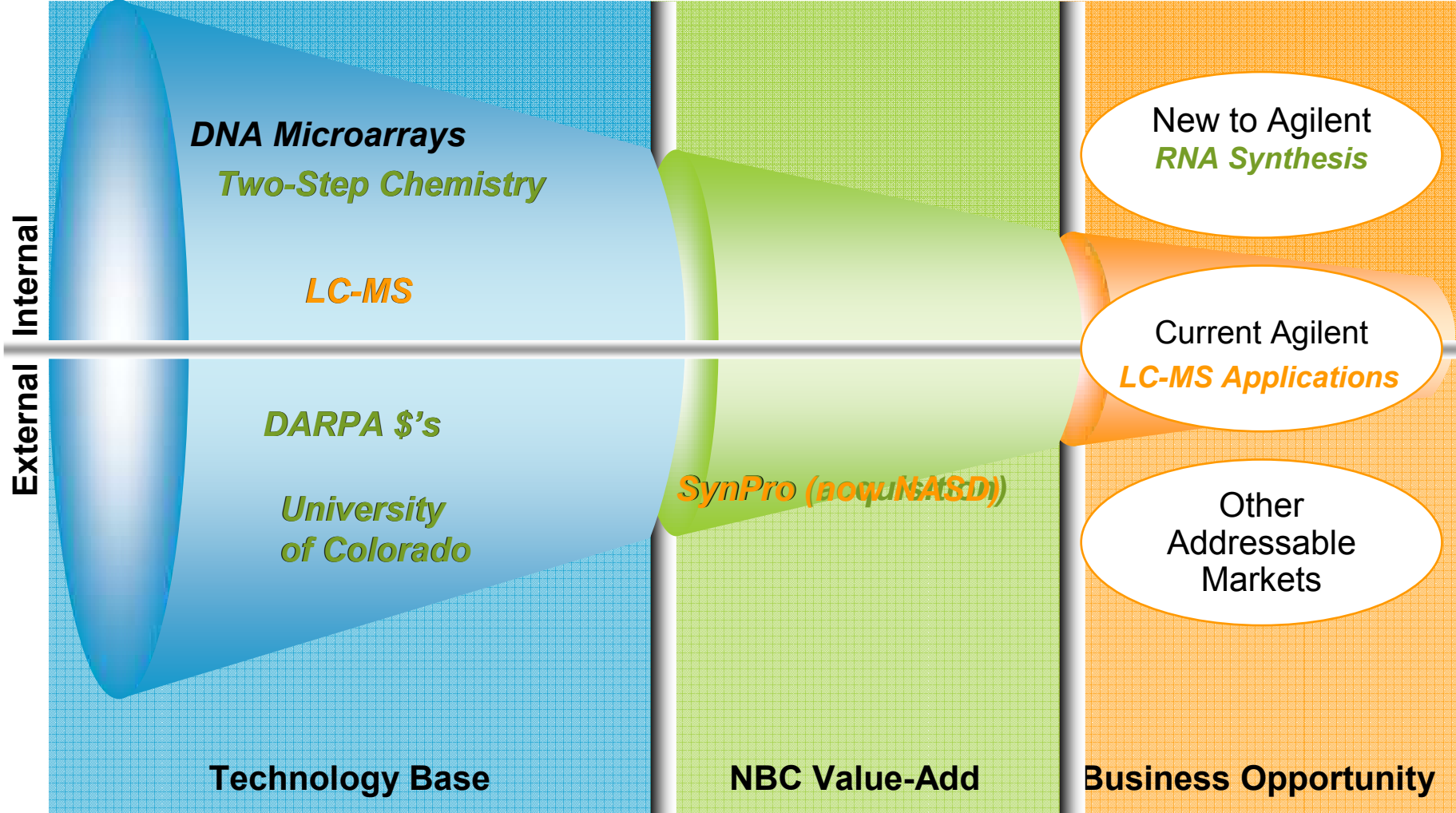
Structure deal as a deferred option at pre-agreed valuation and milestones.

Involve internal technical team to speed product development.

Involve business team to understand market and validate product.

# Case Study 2: Nucleic Acid Synthesis

Leverage internal innovation and external acquisition for new market



# Result: New Market in Growing Class of Therapeutics

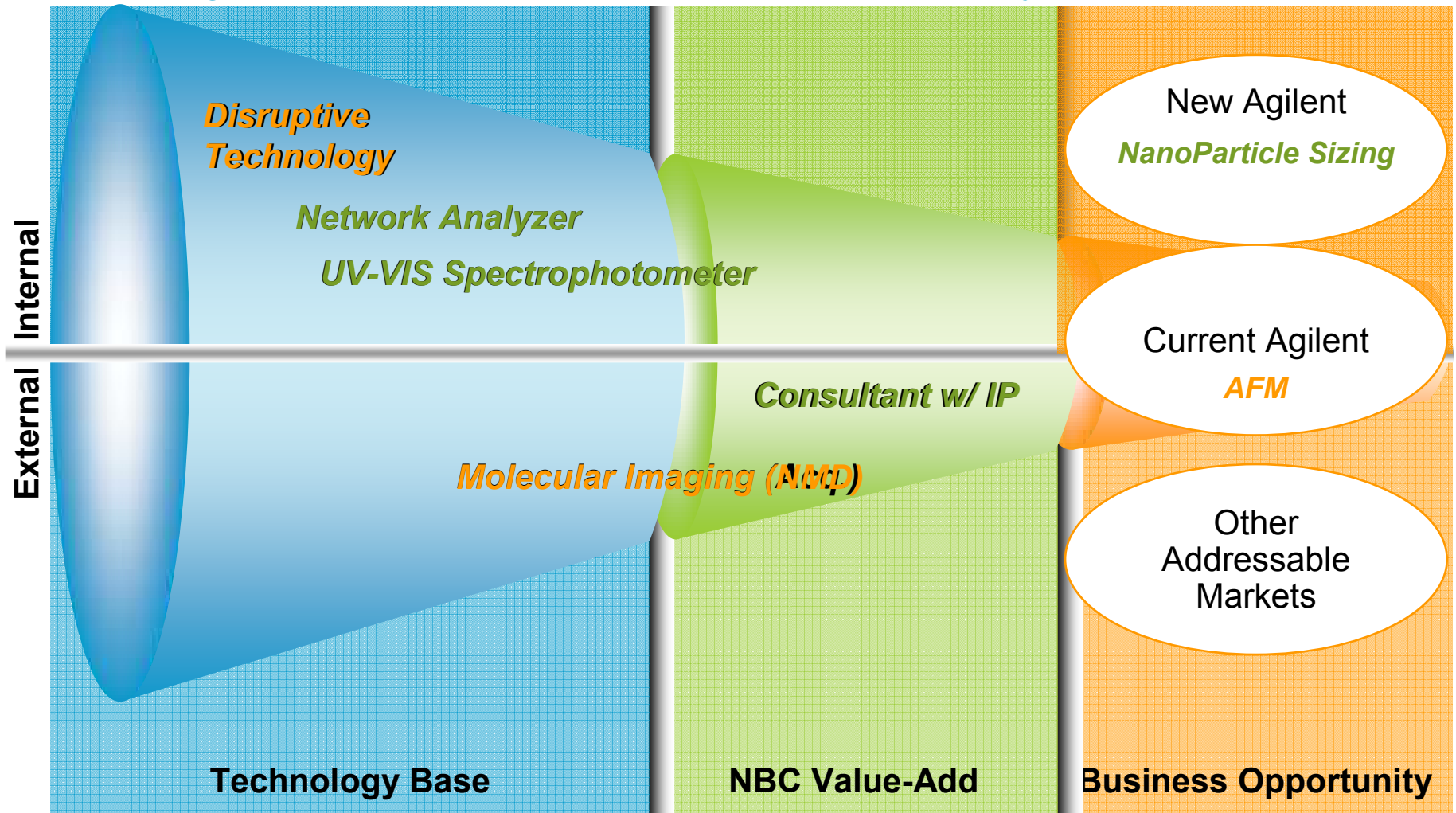
## From molecules that form basic structure of DNA and RNA



- Venture capitalists and pharma invested \$2B in RNA-based therapeutics in past 5 years
- Nucleic Acid Solutions Division manufactures high-quality molecules
- Agilent's competitive advantages:
  - Manufacturing capability scaled to market needs
  - Production and analytical expertise
  - Labs proprietary RNA synthesis chemistry

# Case Study 3: Nanoscale Measurements

- Internal innovation and acquisition to enter microscopy market
- IP licensing and internal development to enter spectroscopy market



# Result: New Player in Nano-measurement



Agilent 5400 AFM



8453A UV-Vis Spectrophotometer

- Nanotechnology tools are expected to grow at 11% CAGR to \$1.1B in 2011 (Lux)
- AFM is the primary nanotech tool today
- Particle sizing market is growing
  - 2007 sales of particle-sizing instruments \$150M
  - Build on mature, robust 8453 UV-visible spectrophotometer platform
  - Superior performance through SW and measurement science innovations
  - Build portfolio of particle-analysis products through acquisition

# Case Study 4: Traffic Flow Measurement

## Today's trend in traffic data

- Embedded Loop: 30 year old technology; installation and replacement costly
- People watch CCTV and manually input data into a GIS system database.
- Other sensors: Radar, IR, Laser and Video

## Tomorrow's automated traffic reporting system

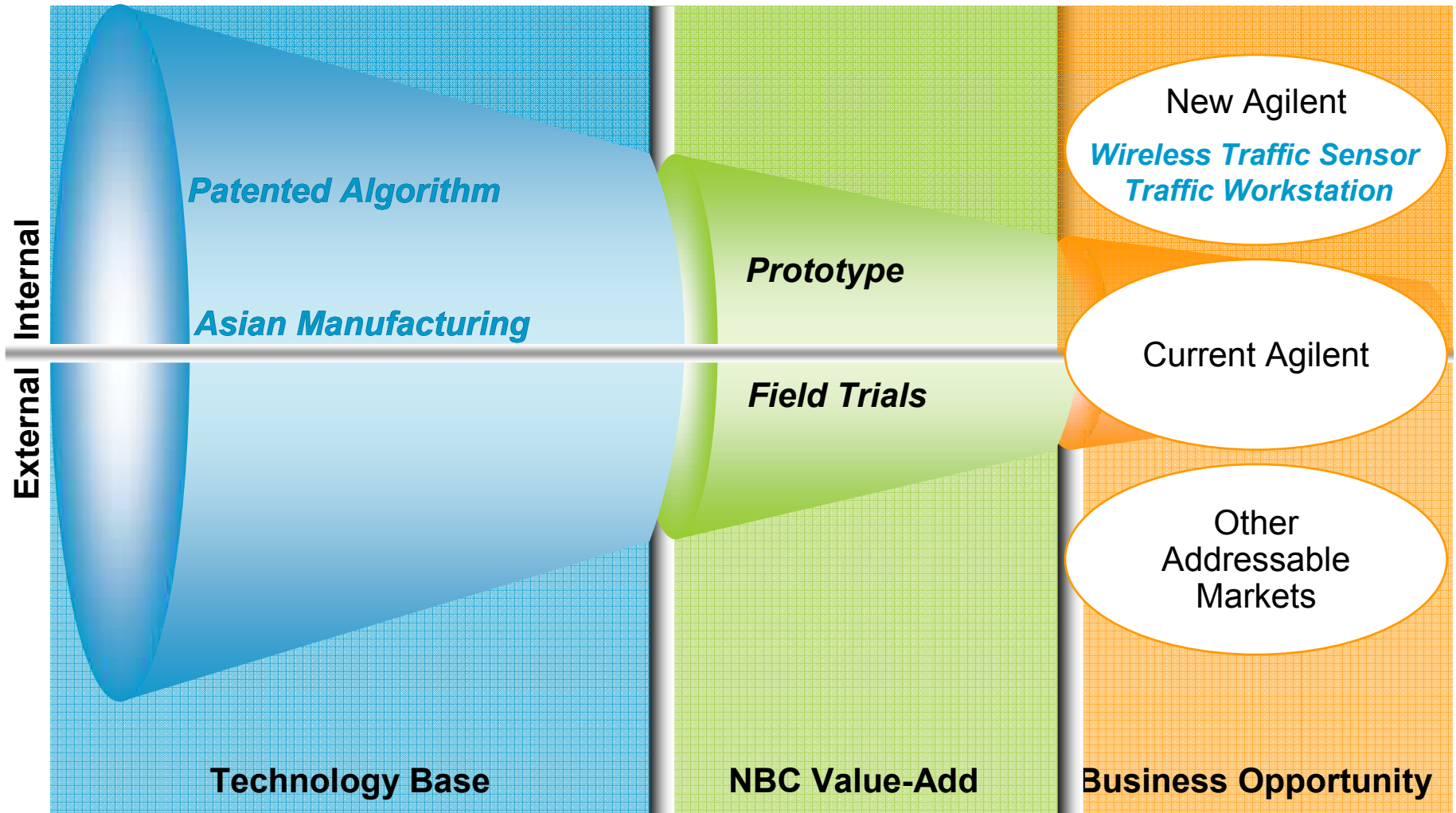
- Video images for **confirmation** and **event management**
- **Digitized** real time traffic data flows from CCTV or sensors into a GIS System with no human intervention.
- **Broadcast** data to display signs on roads, radio stations, web sites, cell phones, in car GPS systems





# Case Study 4: Traffic Data Measurements

Internal incubation and field trials to enter traffic sensor market



# Result: New Player in Traffic Measurement

Converting video into information cost effectively



- Incubating the business internally at Agilent Labs enables rapid prototyping and testing
- Early field trials helped define product needs and market opportunity
- Key learning resulted in a quick transfer to business division.
- Fast TTM to enter an entirely new market, serving new customers with new technology platform.
- Agilent's competitive advantages:
  - Reduced Infrastructure costs
  - Scalable solution

# Case Study 5: Extend Core Platform

System approach to expand core technology into new markets

## Project Goal

- Evaluate market for embedded instruments
- Provide insight on market size and segmentation
- Recommend optimal product definitions based on market data

## Implementation

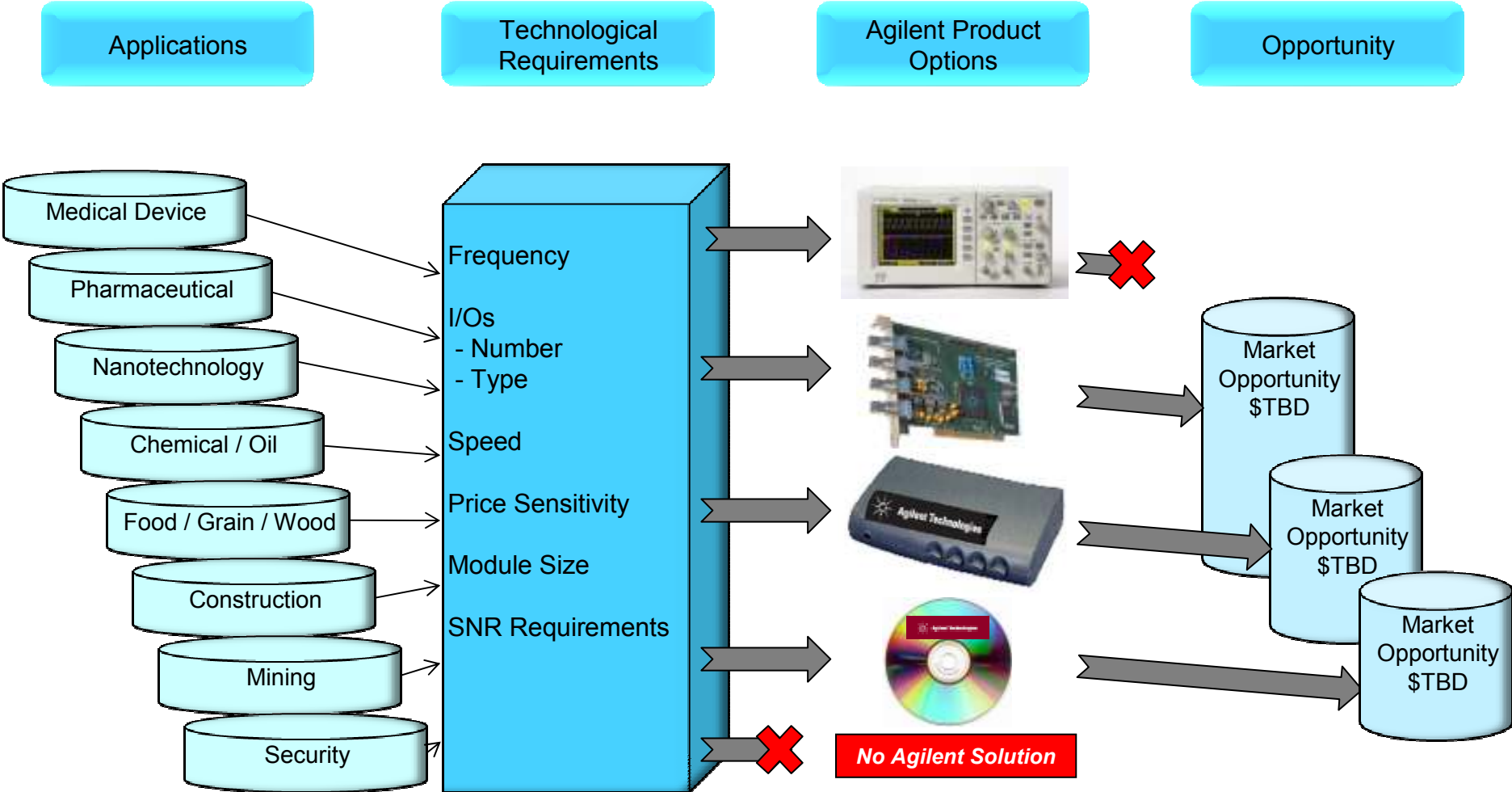
- Find companies developing applications that incorporate embedded instruments.
- Conduct interviews to determine technological needs and business environments of leading companies.

## Value Proposition

- Provide a measurement core on an OEM basis
- Enable partner companies to focus on refining their application layer

# Understand Requirements and Product Options

Derive insights to define opportunity and product options



# Result: Insights to Guide Technology Investment

## Target specific applications with specific modules

- OEM modules with specific performance targets could meet common needs of several industries
- Agilent could serve these segments cost-effectively with OEM modules re-architected from subsystems of current instruments.
- Agilent would gain revenue, improve the bottom line and diversify its business by expanding its core technologies to serve other markets.

## In Closing...



Creating a new business is complex.

Open innovation brings new opportunities for business growth.

A system view is critical in analyzing the problems and opportunities.

# Thank You!

“The field of management is about reducing the risk of bad outcomes involving people; the field of engineering is about reducing bad outcomes with technology. But invention is about taking risk that will almost certainly fail in order to find the unlikely breakthrough.” Jay Walker