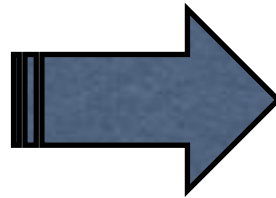




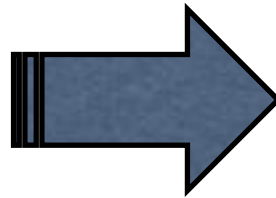
*Open Innovation*

# Story of Open Innovation

Tony Fadell invented a machine in the late 90s



# Story of Open Innovation

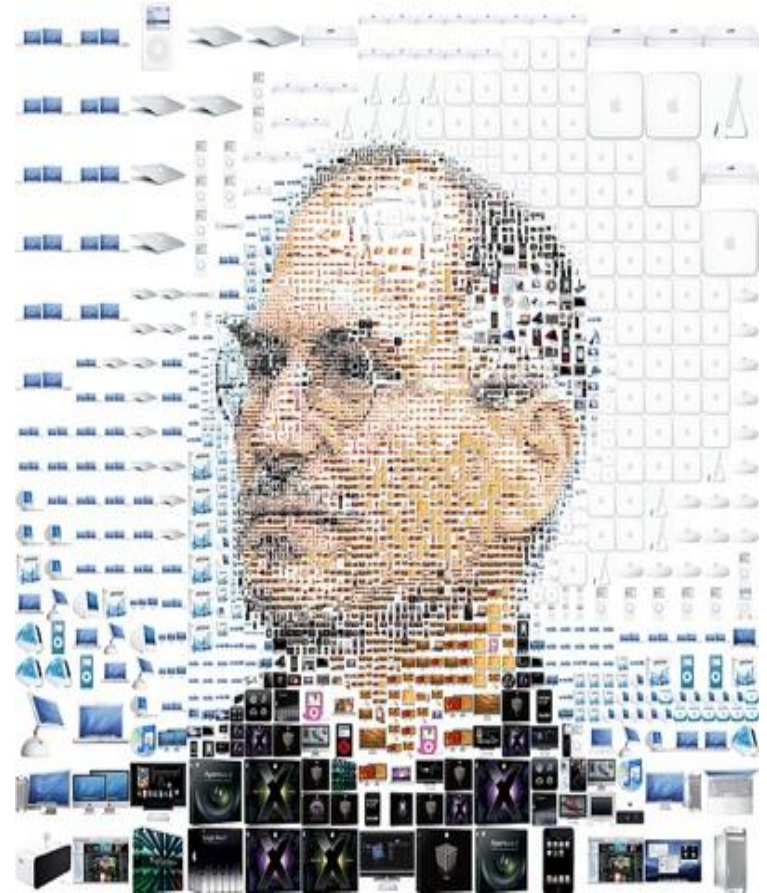
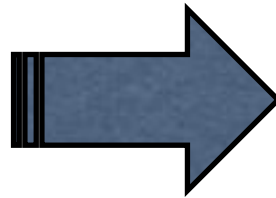


# Innovation

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Single Quarter Revenue  
\$3.8Billion  
In 2007

# Story of Open Innovation



# Story of Open Innovation



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# Introduction to Open Innovation

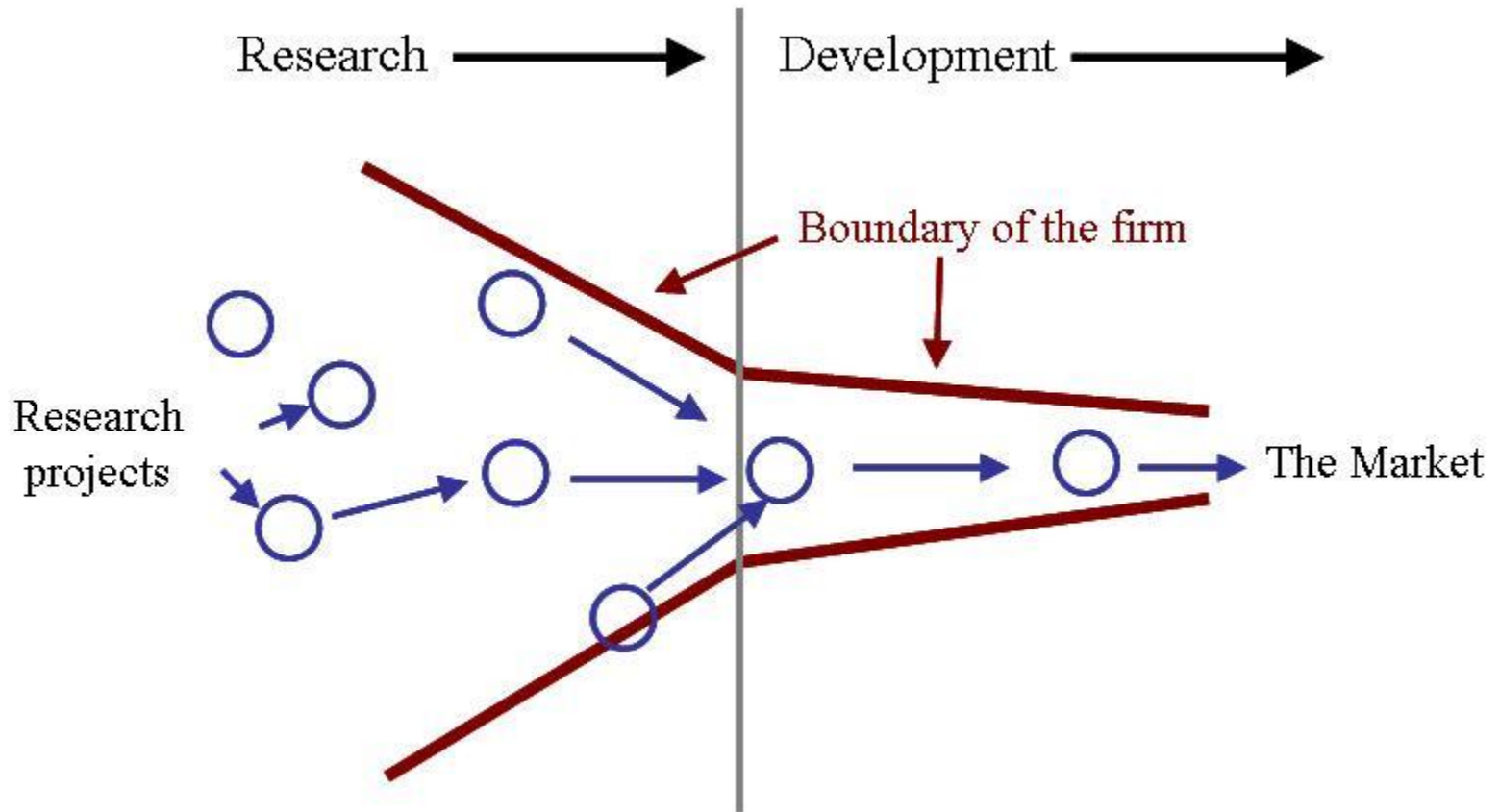
# Open Innovation



Open Innovation argues that the future belongs to those who do the best job of integrating the best of their internal ideas and capabilities with the best external ideas and capabilities – Henry Chesbrough

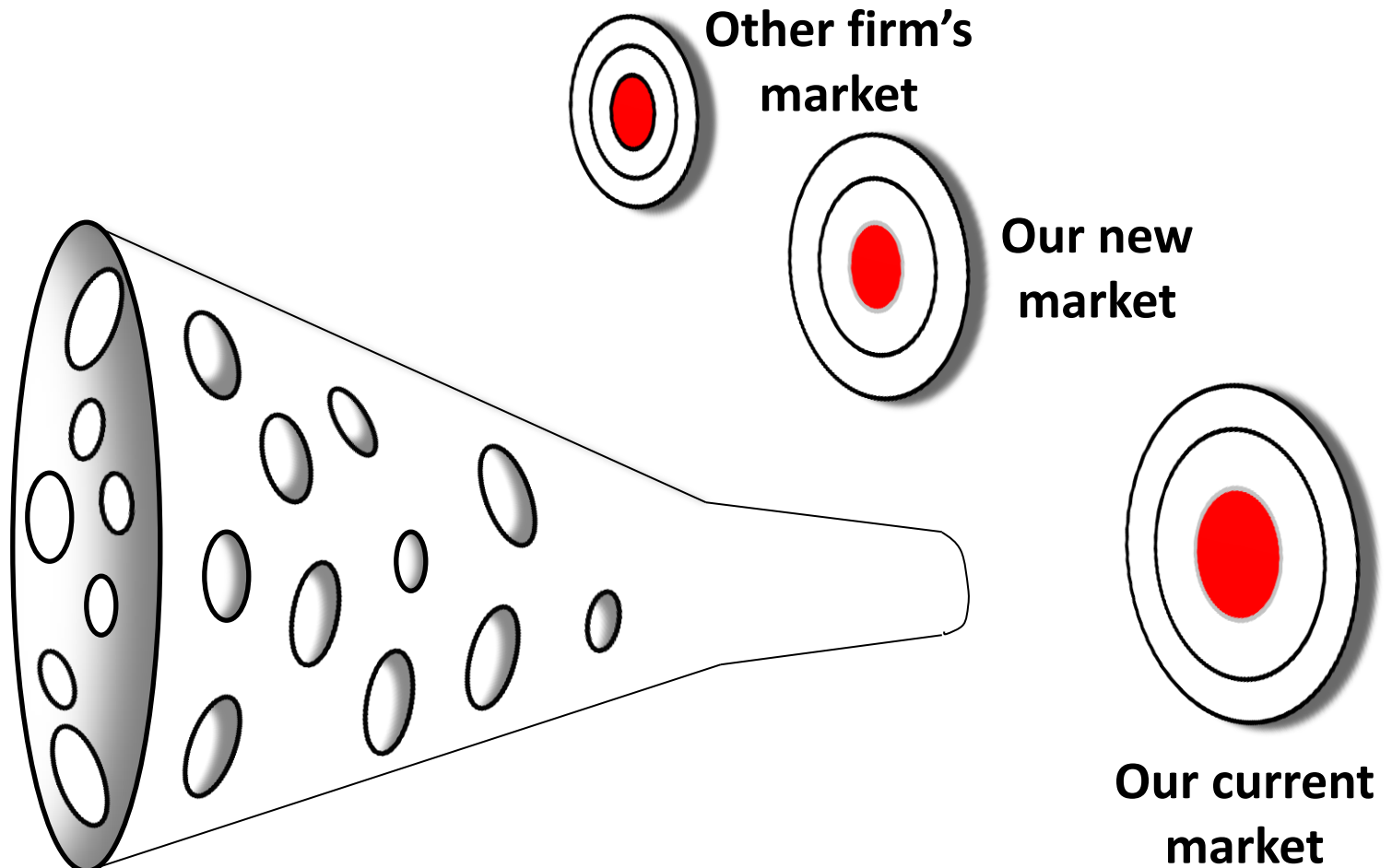


# Closed Innovation



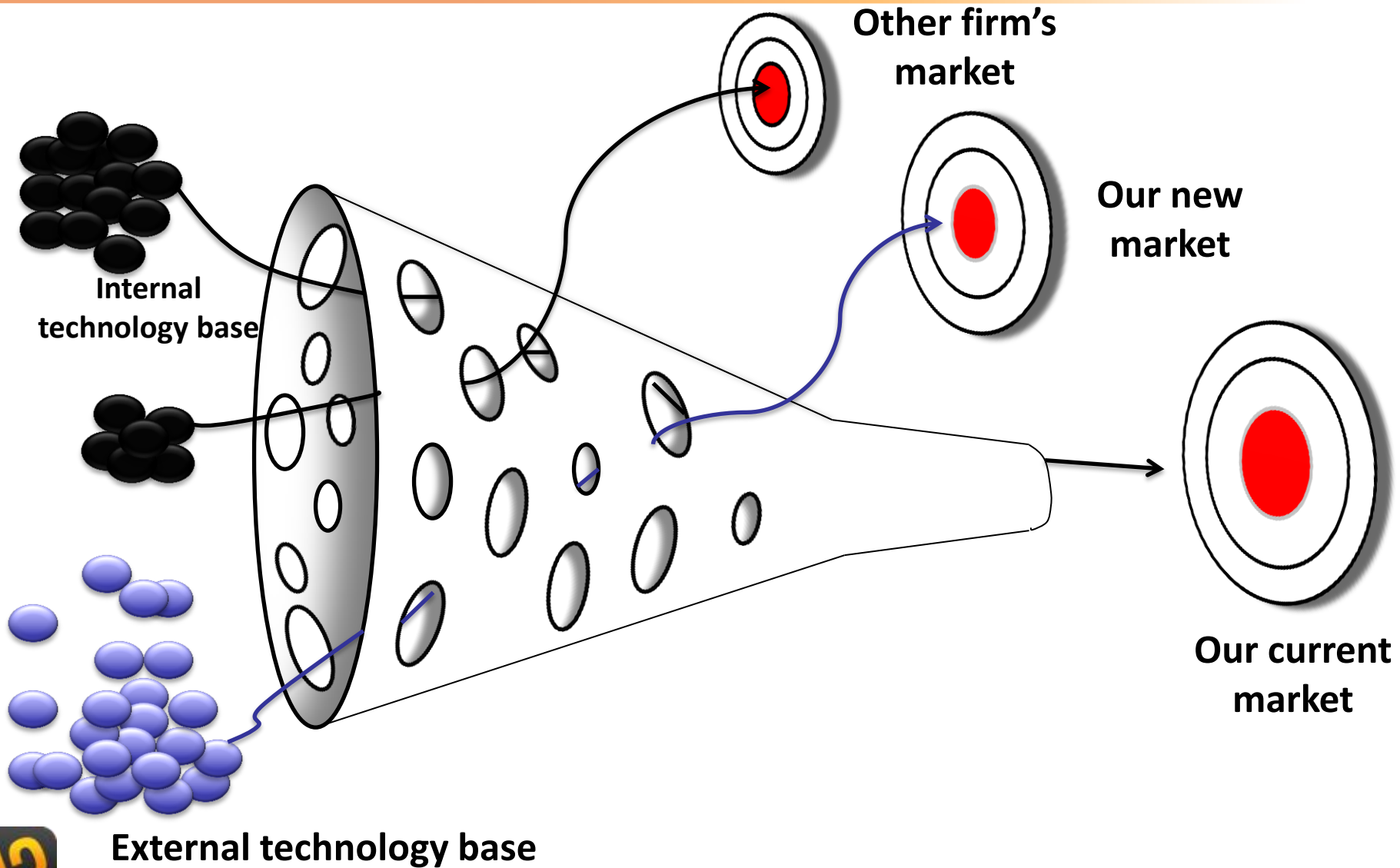
©Henry Chesbrough

# Open Innovation

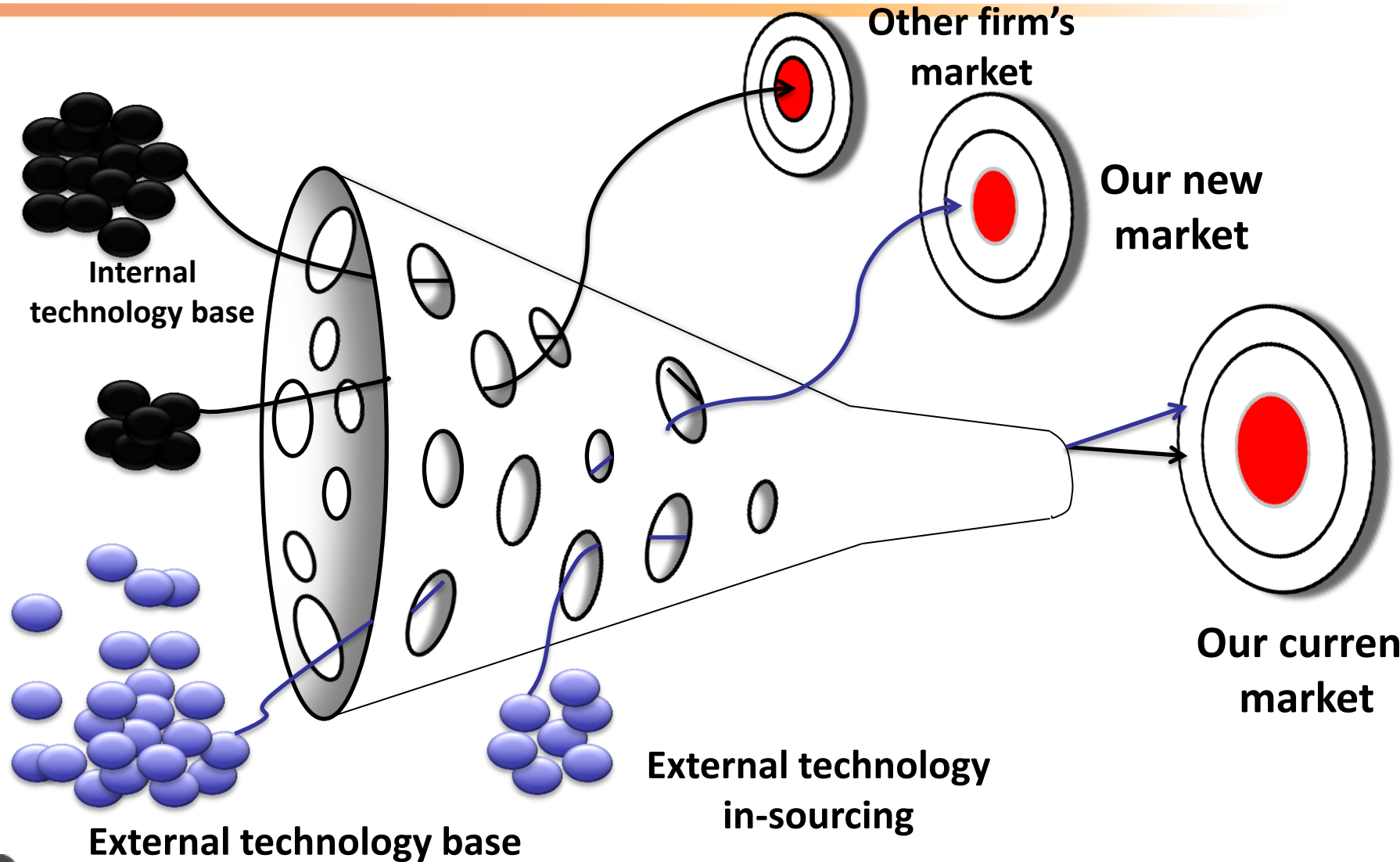


©Henry Chesbrough

# Open Innovation



# Open Innovation



# Open Innovation

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According to HBR Report

\$1Trillion

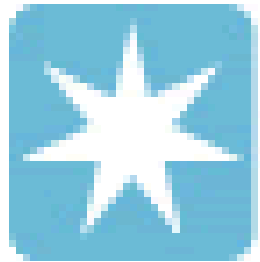
Unused IP is Available

at

Universities, Research Labs and Corporations

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# Examples of Open Innovation in The Energy Sector



**MAERSK**  
**OIL**

# Seeking improving Gas Shale and Oil Production through Fracturing Fluids

**TAGS** *hydraulic fracturing, shale gas, nitrogen, Carbon Dioxide, fracturing fluids, Surfactants,*

Organization type : Large company

Type of Technology Request : Supplier

Industry : Chemical, Others

Domains of Knowledge : Life sciences, Chemistry, Engineering & Technology



**Submit your solution**

Recommend this Technology Request



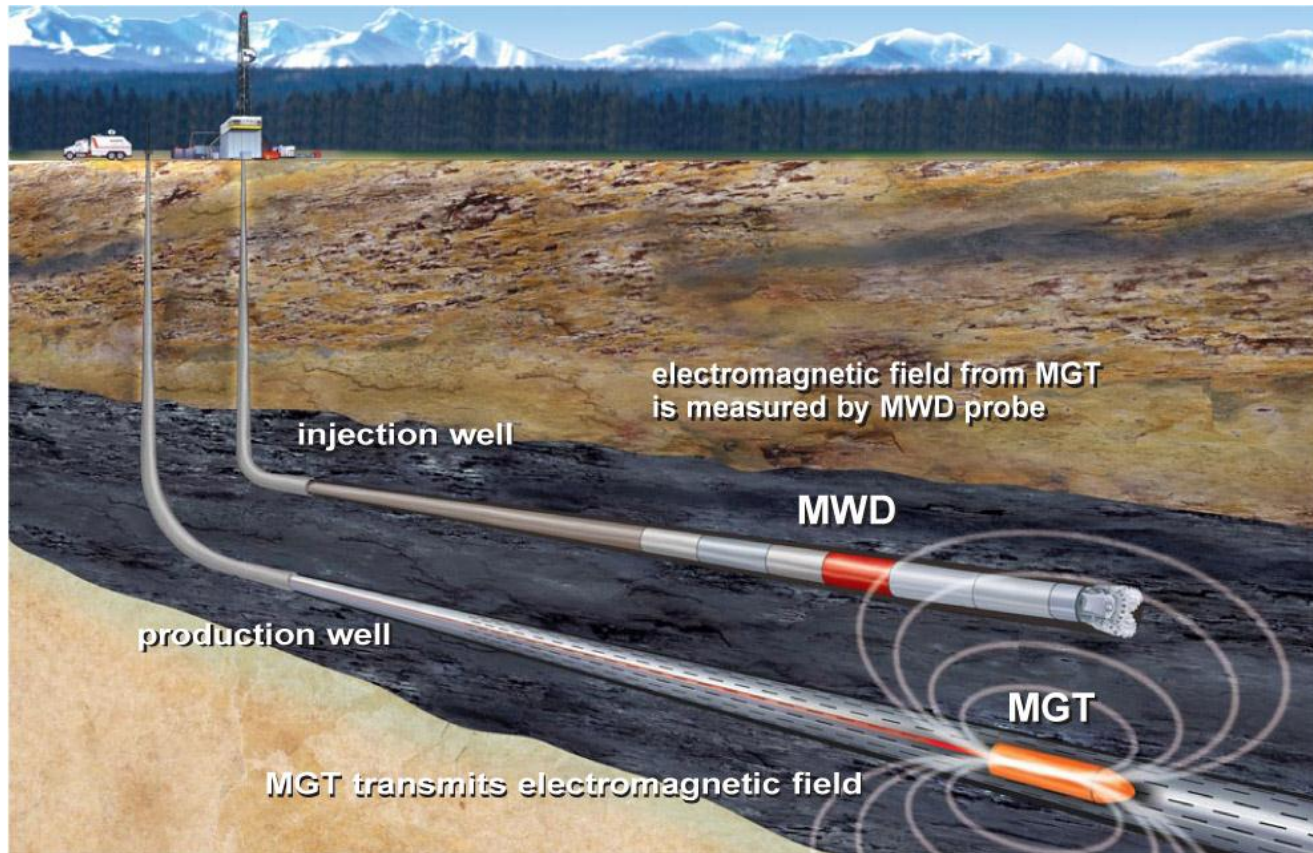
**0**



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**A.O.S.T.R.A.**

# Steam Assisted Gravity Drainage



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# Implementing Open Innovation

# Internal Research Platform



200 Technology Transfer Offices



20+ Federal Labs



500 Scientific Journals



12 Online Technology Market Places



United States Patent and Trademark Office

An Agency of the Department of Commerce

Patent Databases Covering 80+ countries



Univ Grants, SBIR/STTR Awards



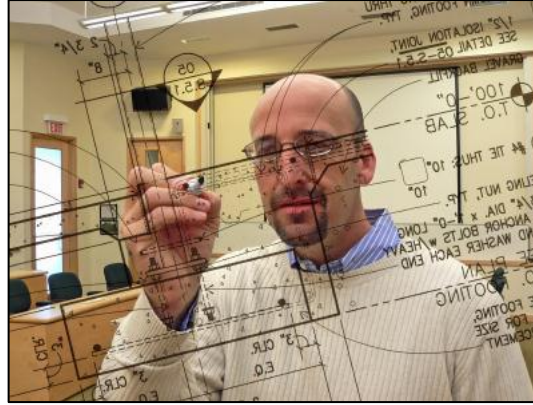
Venture Capital Database



# Team of Research Scientists, Application Scientists and Solution Experts



Research  
Scientists



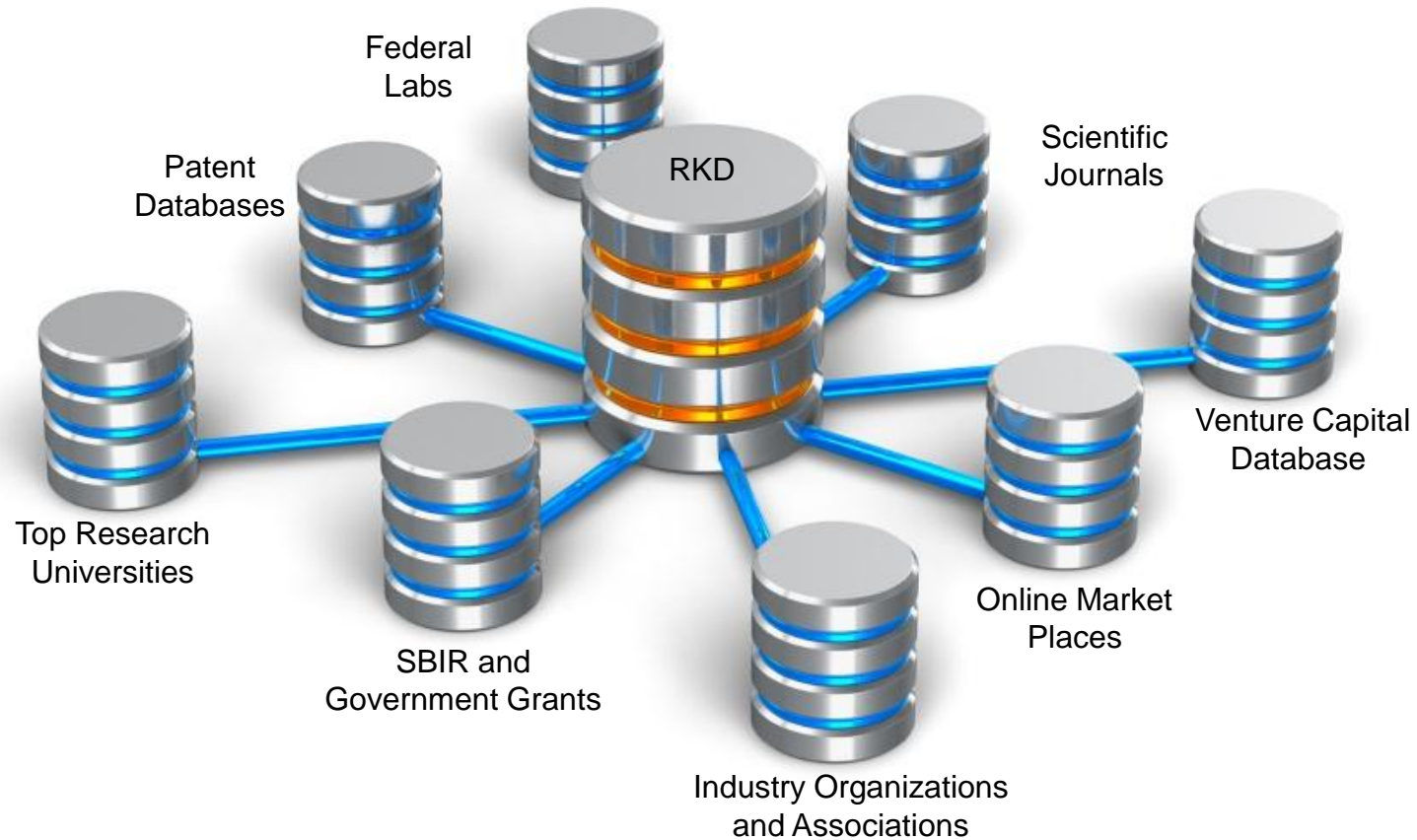
Application  
Scientists



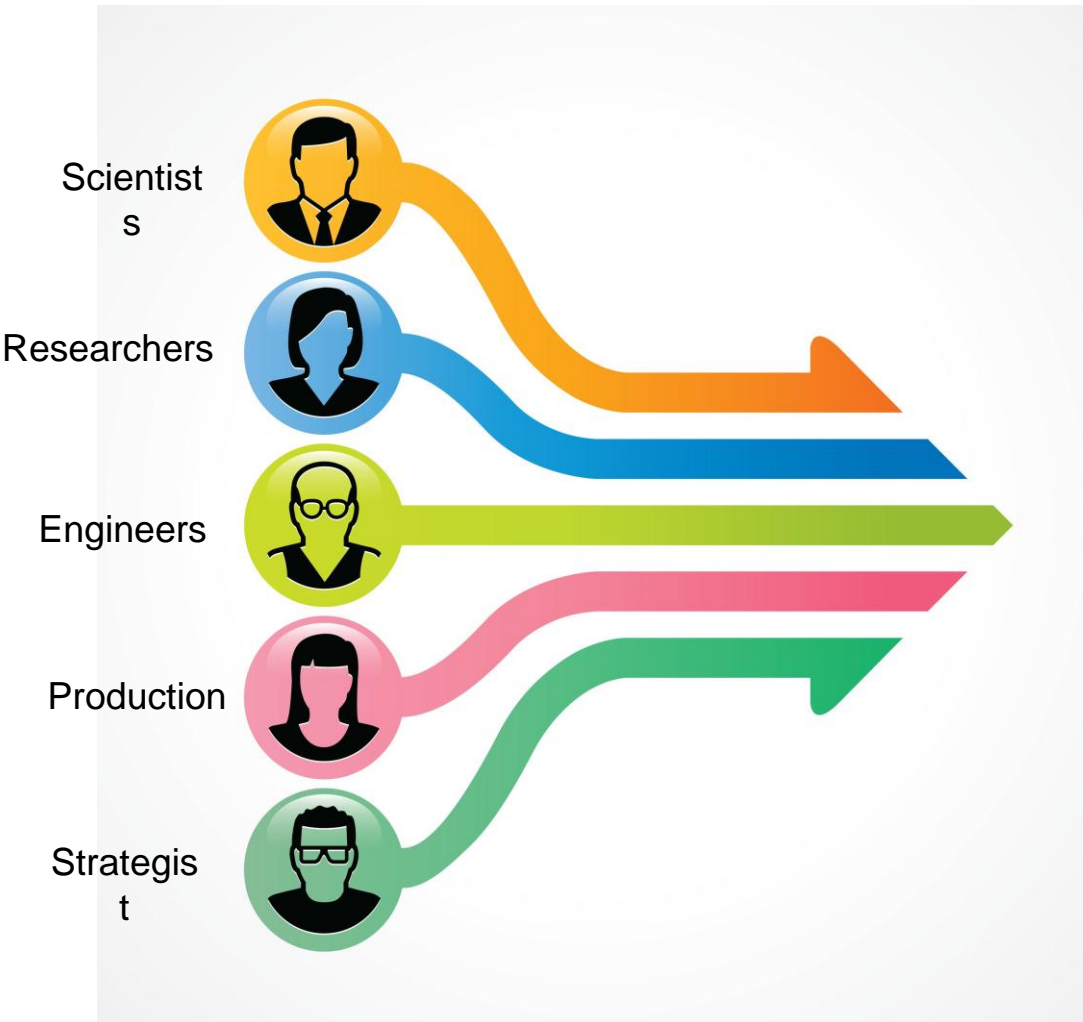
Solution  
Experts

**STEM**  
**Chemistry**  
**Life Science**  
**Materials Science**

# Development of Research Knowledge Database



# Multi Access Research Knowledge Database



# Corporate Research Knowledge Databases



Researchers



Production



Engineers



Strategists



Materials for  
Drilling  
Applications



Next Generation  
Super  
Hydrophobic  
Coatings



Emerging  
Composites for  
Automotives



Nutrical  
Therapies for  
Anti-Aging



Breakthroughs  
in Elastomers  
and Polymers



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# Open Innovation Culture

# MIT Sloan – Four Types of Innovation Cultures

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- 1. Technology Isolationists**
- 2. Technology Fountains**
- 3. Technology Sponges**
- 4. Technology Brokers**

Ulrich Lichtenthaler, Martin Hoegl and Miriam Muethel

# MIT Sloan – Four Types of Innovation Cultures

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**Technology Isolationists – Not Invented Here and Not Sold Here**



# MIT Sloan – Four Types of Innovation Cultures

**Technology Fountains – High technological knowledge, partly transfer to other companies. But they are still characterized by strong not-invented-here attitudes such as chemical companies**



# MIT Sloan – Four Types of Innovation Cultures

**Technology Sponges – These companies actively absorb external technology, but they do not transfer a lot of their own technology to external partners. An example of this group is a pharmaceutical company that actively relies on inbound open innovation**



# MIT Sloan – Four Types of Innovation Cultures

**Technology Brokers** – These companies actively pursue both inbound and outbound technologies and have a very limited level of not-invented-here and not-sold-here tendencies



# Open Innovation Culture

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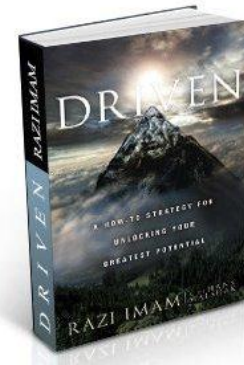
- 1. Innovation Leaders – Focus on strategic and tactical work of building the internal platform required to develop organizational innovation capabilities. They coach, facilitate and sponsor**
- 2. Intrapreneurs – Work within the platform created by innovation leaders to turn ideas and research into real products**

# Razi Imam

CEO and Founder - 113 Industries



Author – Driven “A How-to Strategy For  
Unlocking Your Greatest Potential – John  
Wiley and Sons.



Adjunct Professor – Carnegie Mellon  
University – Teaching Open Innovation

**Carnegie  
Mellon  
University**

[razii@113industries.com](mailto:razii@113industries.com)

Thank You!





# High-Speed External (Open) Innovation

