

Ian McCoull Scottish Enterprise

Open & User Driven innovation
A Policy Instrument

Thursday 20th November 2014



Henry Chesbrough: Haas Business School in Berkeley California

Father of Open Innovation



In the 1980's observed a landscape where giant multinationals housed on secure complexes and cut off from the rest of the world generated their ideas only within these spaces .. and proposed that this was inefficient.

Open Innovation was his tool for addressing this

In 1981 more than 70% of R&D spending was carried out by companies > 25,000 employees.

Only 5% of R&D spending was carried out by companies <1,000 employees.

Today, companies >25,000 employees account for 35 percent of total R&D spending

Companies <than 1,000 account for 24 percent of total R&D spending.

Innovation . . . Open Innovation

- Most of the smart people don't work for you
- Gain access people you couldn't . . . or wouldn't employ
- Diversity is as important as ability

'Most Innovation happens elsewhere'

Bill Joy – Sun Microsystems, Inc.

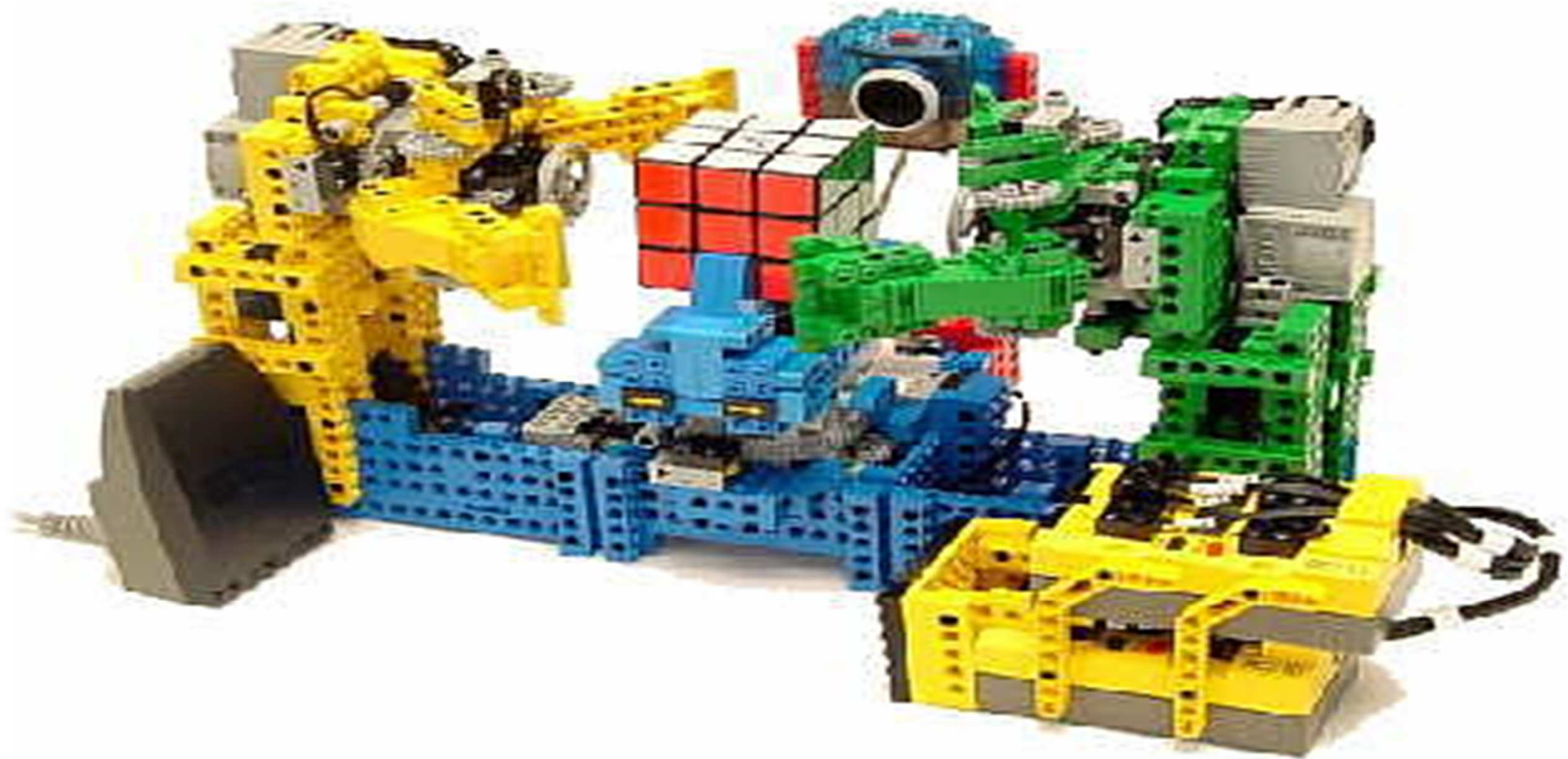
Open Innovation & User Driven Innovation

Innovation . . . often

**The difficulty lies not in the new ideas
. . . but in escaping the old ones.**

John Maynard Keynes

Innovation . . . Open Innovation & User Driven Innovation



Open Innovation & User Driven Innovation

	Innovation inside	Innovation outside
<i>Expertise</i>	Expertise triumphs	Diversity trumps expertise
<i>Knowledge</i>	<i>What</i> you know matters	<i>Who</i> you know matters
<i>Intellectual Property</i>	Take no risks - copyright, patent & protect	Judge the risk of releasing information against the return of gaining understanding
<i>Intellectual</i>	The goal is to agree	The goal is to tap into those who think differently
<i>Development</i>	Improve ideas by applying more resources	Improve ideas by sharing them with others
<i>Assessment</i>	Judge ideas by how they fit	Judge ideas by who could
<i>Relationships</i>	Relationship hierarchies	Relationship networks
<i>Organising</i>	Innovation management	Innovation ecosys

Open Innovation & User Driven Innovation

Demand Led Innovation

- The “Good Guys” arguments
 - “We draw on the very best ideas on the planet ..where-ever they might be found ...eg small companies, lone inventors, universities ...”
 - “We collaborate with inventors/originators, complementing their skills to get things done fast”
 - “We take these ideas into big markets and make big bucks for the people who had the ideas”
 - The “bad guys” arguments
 - “We do not pay for the failures .. We do not pay for corporate overheads”
 - “We can use them to prime our R&D team to invent around them if they are not protected”
 - “We get the best price for these ideas ..because we are the only/best route to market for them”
 - “We can manage the timelines for exploitation”
- After Peter Hewkin

Demand Led Innovation

- Finding Unmet Needs
 - Private Sector
 - Public Sector
- Engaging SMEs
 - Highlight the Opportunity
 - Mitigate the Risk of Engaging

Demand Led Innovation: Private Sector Approach

- Utilise the Norwegian STATOIL Approach
 - Encourage Tier One companies to highlight areas of unmet need that are industry issues and would apply to other companies in the sector.
 - Open that unmet need up to the SME community via a R&D competition.
 - Provide support to the SME to develop solutions (The SME retains the IP and right to exploit)
 - “Tier One” agrees to collaborate and provide development support at no cost.
- Challenge:
 - Tier One Businesses need an “Open Innovation Culture”

Demand Led Innovation: Public Sector Approach

- **New Approach**
 - Work with Public Sector organisations to highlight unmet need.
 - Translate those Needs to Challenges for SME's to consider developing.
 - Open that unmet need up to the SME community via a R&D competition.
 - Provide support to the SME to develop solutions. (The SME retains the IP and right to exploit)
 - The “solution set” forms an “Outcome Based” procurement specification that is procured within the EU requirements for procurement.

- **Challenge:**
 - It is Not a procurement exercise.
 - Must be an “Unmet Need” that requires development not basic research
 - Fear of Failure, Reputational Risk, Lack of Product Development Culture