

How to optimize
the return from
EU Research
Investment:

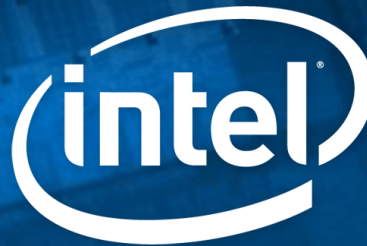
Open Innovation
2.0



Prof. Martin Curley

Vice President, Intel Labs
Director, Intel Labs Europe,
Intel Corp. &

Chair, EU OISPG
Co-Director, Innovation Value
Institute
National University of Ireland,
Maynooth



Intel Labs Europe





Open Innovation 2.0

Sustainable Economy & Society – *Stability. Jobs. Prosperity.*

Dublin, Ireland. May 20-21 2013

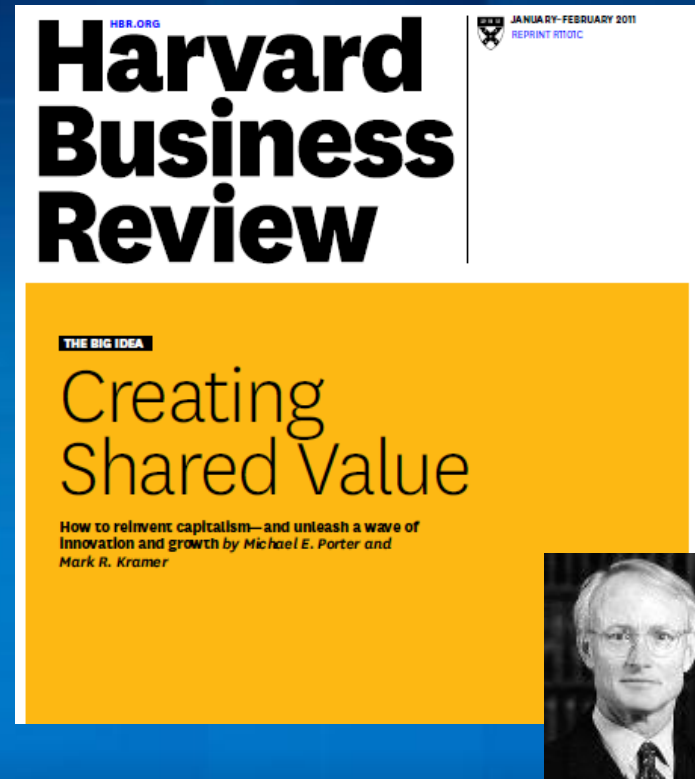


Open Innovation Strategy
and Policy Group - OISPG



Shared Value

- Re-conceiving the intersection between society and corporate performance
- Find Win – Win outcomes
- Profit through solving Big problems



Intel Labs Europe

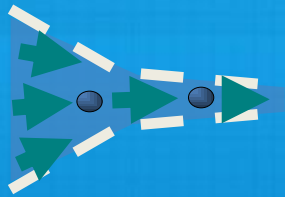
Advance Intel by bringing the benefits of the ongoing digital revolution to European economy & society by:



*Advancing breakthrough research
Forming close partnerships with the
European technology community*

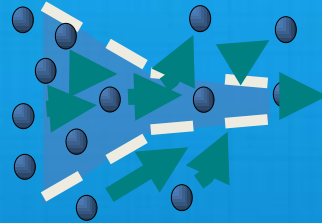


Innovation moving out of the Lab



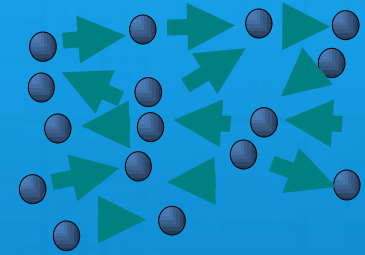
Centralized
inward looking
innovation

Closed
Innovation



Externally
focused,
collaborative
innovation

**Open
Innovation**



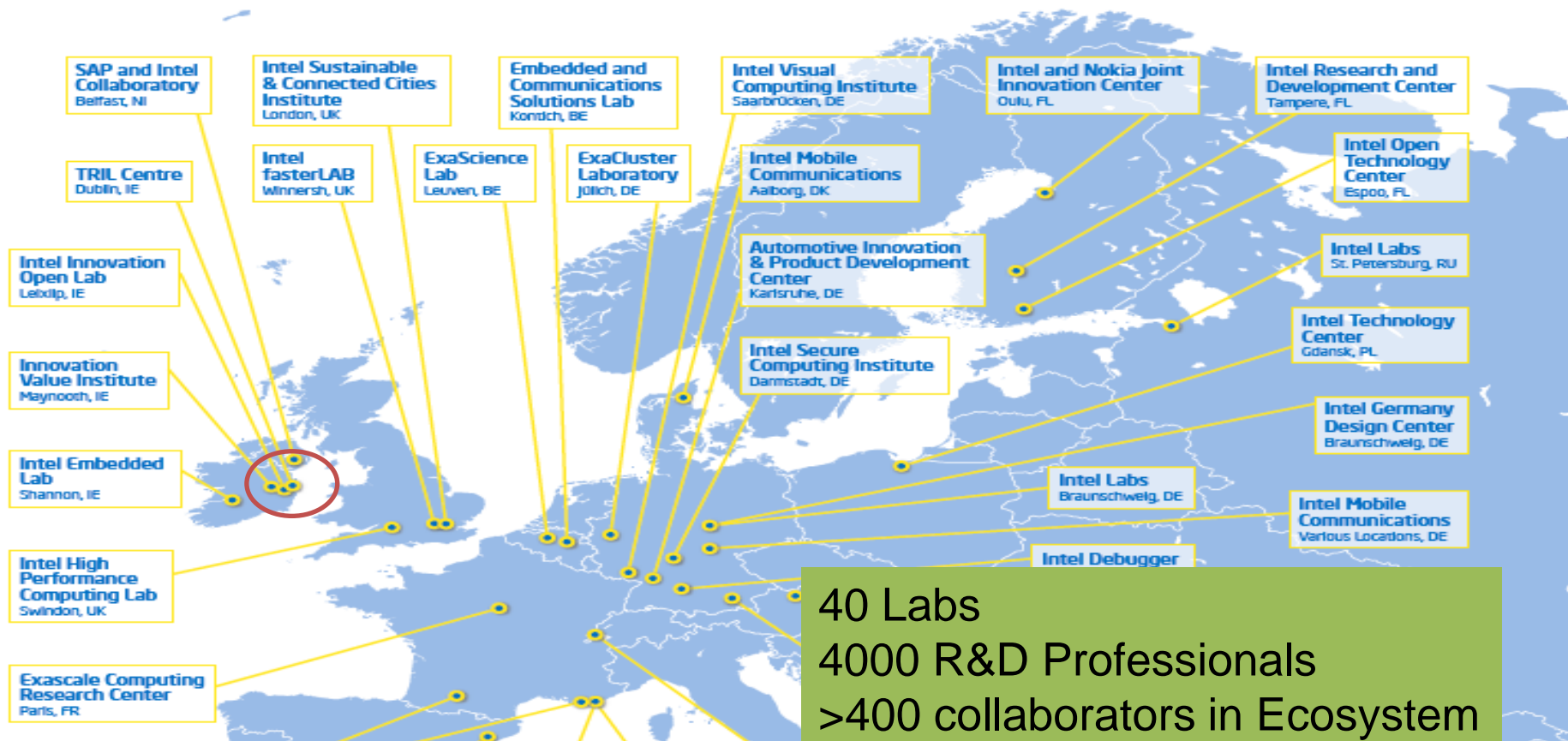
Ecosystem
centric, cross-
organizational
innovation

**Innovation
Networks**

(Network = voluntary or formal groups
based on trust and shared value)

Intel Labs Europe Network

Harnessing the collective value of Intel's R&D investments in Europe



...and we collaborate with over 400 external partners ...vibrant innovation ecosystem



...the Winds of Change

- “When the winds of change come, some people build walls, other build windmills”

– Brian and Sangeeta
Mayne



Open Innovation and
Openness to Innovation

Innovation Mindset change?

“Innovation is not Innovators innovating, it is customer’s adopting”

Michael Schrage, MIT

“Innovation does not just change our lives, it is how we make a living”

President Obama

“Innovation is not a sausage machine, You don’t get it by a plan imposed by government and you can’t measure it just by counting patents or even just spend on R&D. It is all about creative interactions between science and business”. George Osborne

“From Research to Retail”

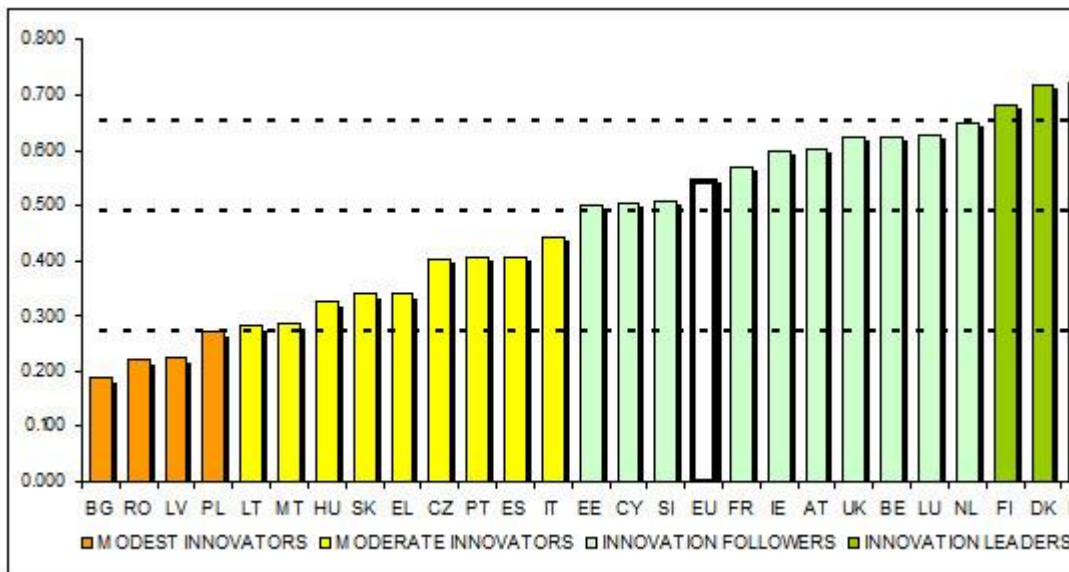
Commissioner Geoghegan Quinn

What is the worst measure of Innovation performance?

How much you spend on R&D

Focus on Innovation output and adoption

European Innovation Scorecard



Inputs,
Intermediate &
Outputs indicators

SUMMARY INNOVATION INDEX

HUMAN RESOURCES

- 1.1.1 New doctorate graduates
- 1.1.2 Population completed tertiary education
- 1.1.3 Youth with upper secondary level education

RESEARCH SYSTEMS

- 1.2.1 International scientific co-publications
- 1.2.2 Scientific publications among top 10% most cited
- 1.2.3 Non-EU doctorate students

FINANCE AND SUPPORT

- 1.3.1 Public R&D expenditure
- 1.3.2 Venture capital

FIRM INVESTMENTS

- 2.1.1 Business R&D expenditure
- 2.1.2 Non-R&D innovation expenditure

LINKAGES & ENTREPRENEURSHIP

- 2.2.1 SMEs innovating in-house
- 2.2.2 Innovative SMEs collaborating with others
- 2.2.3 Public-private co-publications

INTELLECTUAL ASSETS

- 2.3.1 PCT patent applications
- 2.3.2 PCT patent applications in societal challenges
- 2.3.3 Community trademarks
- 2.3.4 Community designs

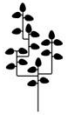
INNOVATORS

- 3.1.1 SMEs introducing product or process innovations
- 3.1.2 SMEs introducing marketing/organisational innovations

ECONOMIC EFFECTS

- 3.2.1 Employment in knowledge-intensive activities
- 3.2.2 Contribution MHT product exports to trade balance
- 3.2.3 Knowledge-intensive services exports
- 3.2.4 Sales of new to market and new to firm innovations
- 3.2.5 Licence and patent revenues from abroad

Where is Europe?

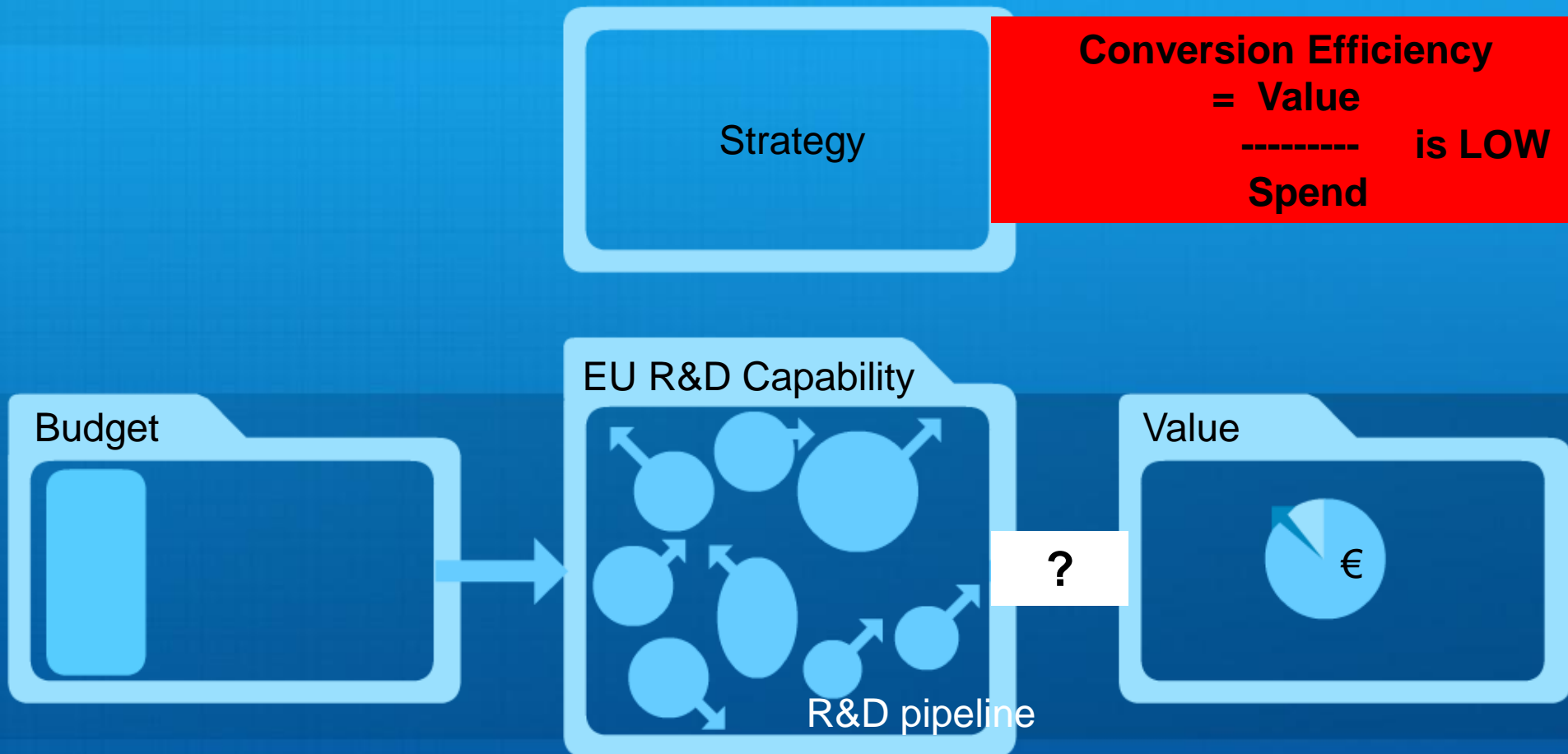


Startup Ecosystem Report 2012

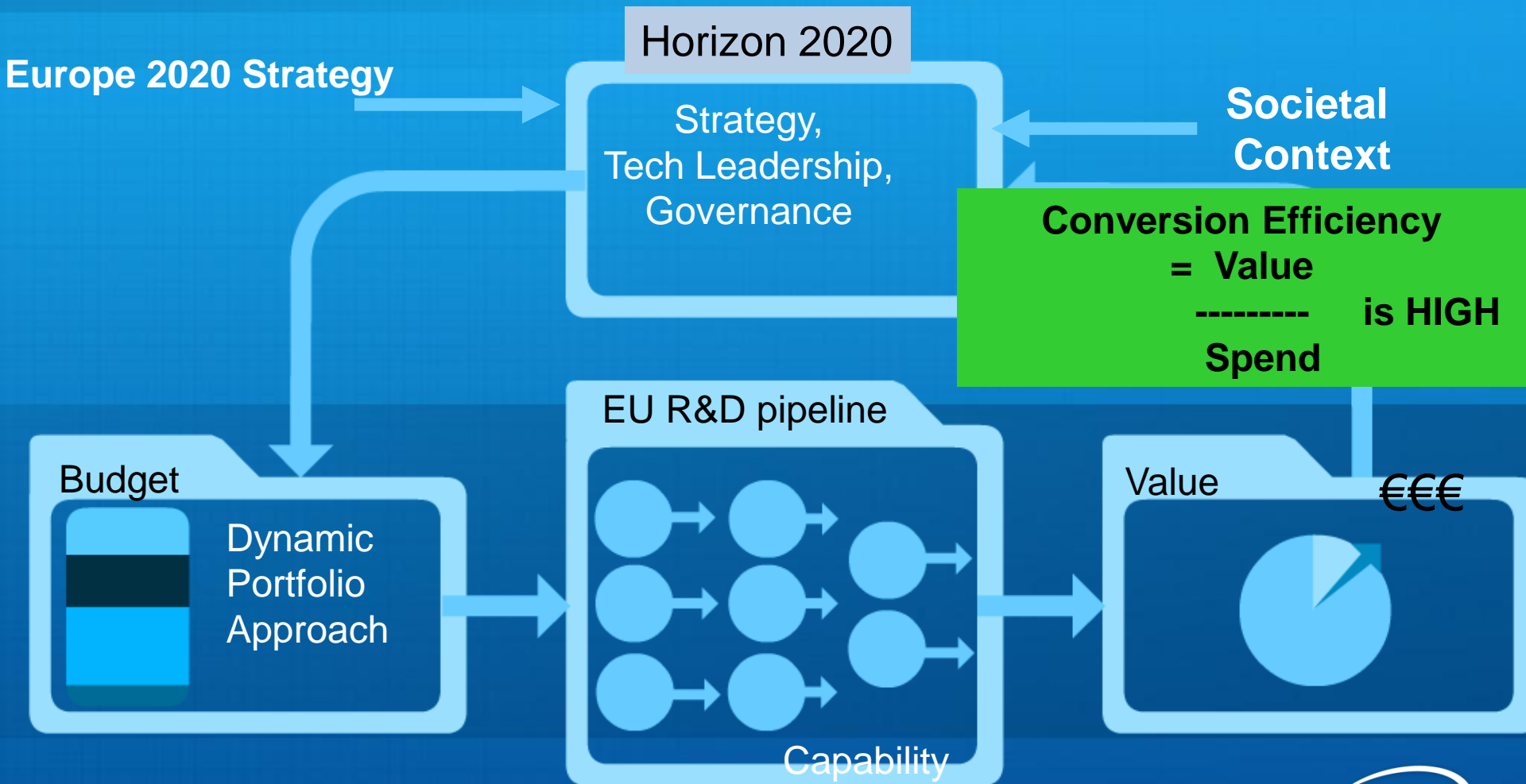
Ecosystem	Ranking	Startup Output Index	Funding Index	Performance Index	Talent Index	Support Index	Mindset Index	Trendsetter Index	Differentiation from SV Index
Silicon Valley	1	1	1	1	1	1	1	1	1
Tel Aviv	2	2	1	12	5	5	9	17	18
Los Angeles	3	4	6	2	3	13	11	4	11
Seattle	4	19	7	6	2	4	6	11	14
New York City	5	3	4	8	12	9	8	7	8
Boston	6	10	1	7	7	8	7	5	20
London	7	7	5	10	9	2	3	14	17
Toronto	8	6	9	3	10	3	15	12	5
Vancouver	9	13	12	9	4	14	2	9	19
Chicago	10	8	15	5	14	7	13	18	9
Paris	11	14	13	4	17	6	12	15	6
Sydney	12	5	14	16	6	12	16	1	3
Sao Paulo	13	9	10	15	19	11	5	16	4
Moscow	14	16	19	18	11	10	14	8	2
Berlin	15	15	11	13	13	20	18	5	16
Waterloo	16	11	16	14	16	17	17	10	13
Singapore	17	18	8	19	8	16	20	19	12
Melbourne	18	12	17	20	15	18	19	3	15
Bangalore	19	17	18	17	18	15	10	20	10
Santiago	20	20	20	11	20	19	4	13	7

- Is there an ambition, risk, capital and cultural problem in Europe?

Unaligned EU R&D & Open Loop Spending and Investment



Achieving Dynamic Capabilities: Closed Loop EU Research and Innovation Management System

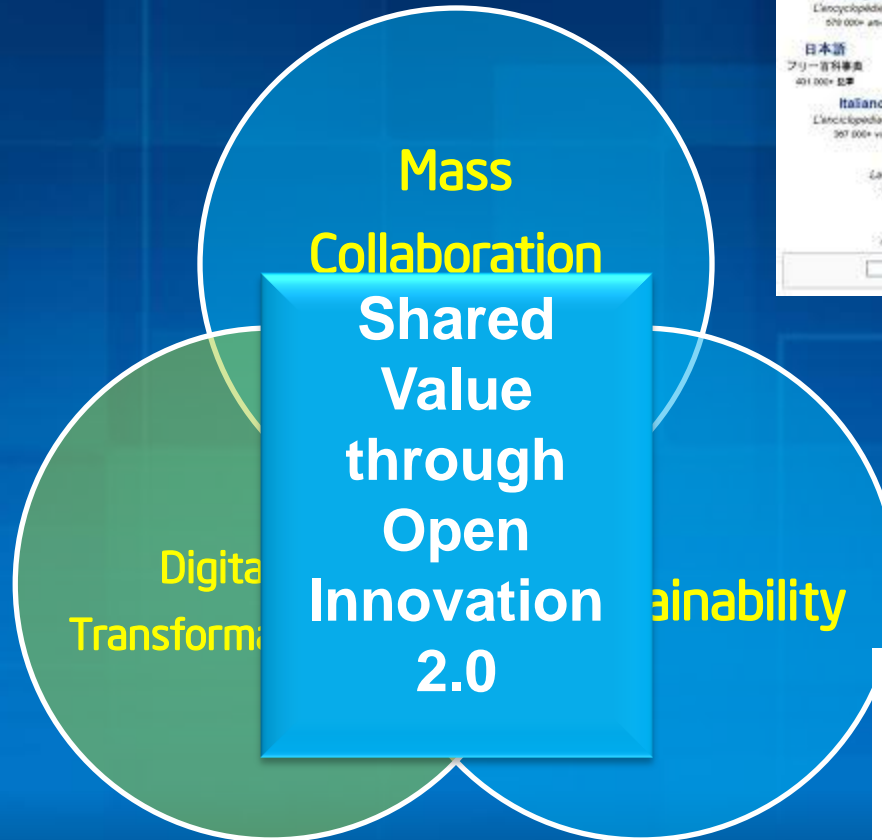


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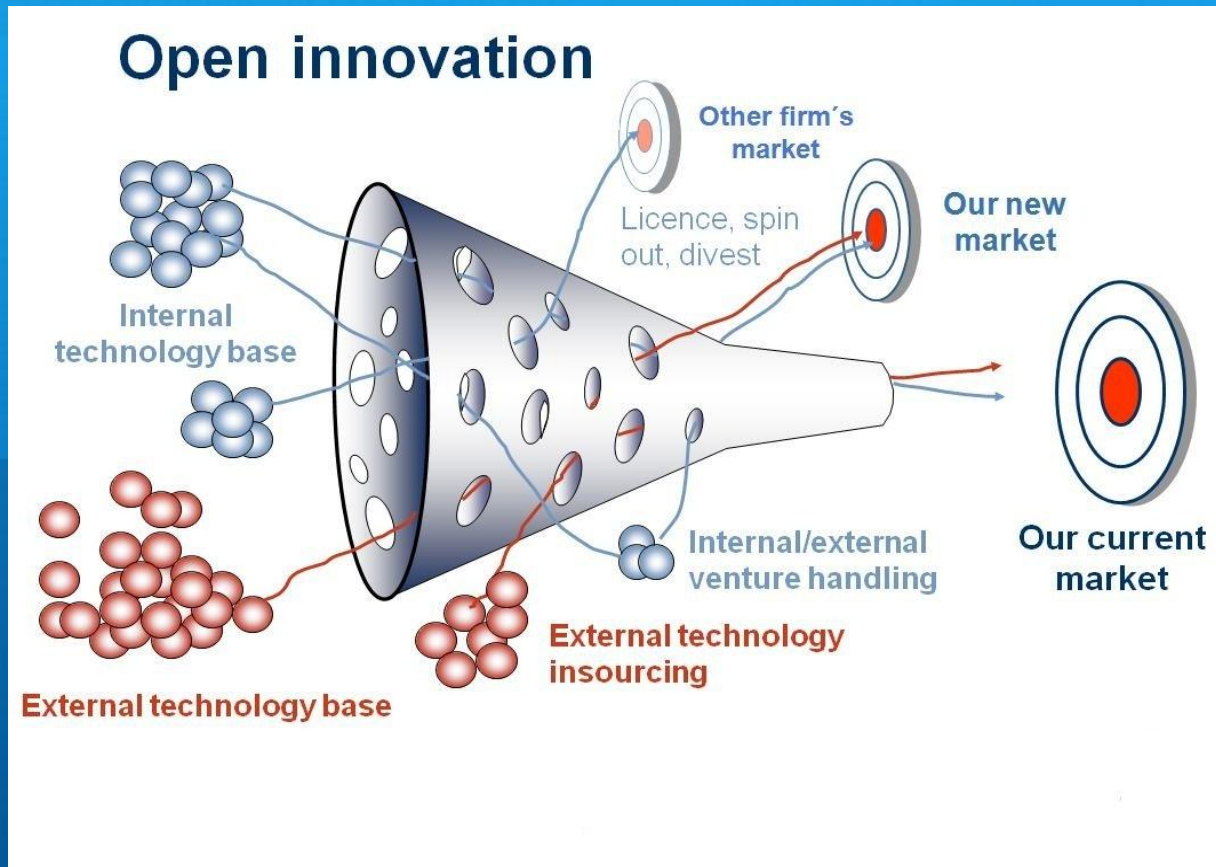
Innovation as a Service: Innovation Maturity Model

Innovation	Managing Innovation	Funding Innovation	Managing Innovation Capability	Managing and Assessing Innovation Value
5. System Innovation	Continuous realignment of pipeline	Amplified budget	Innovation excellence	Predictable, Probable, and Profitable
4. Managed Innovation	Explicit strategy	Co-funding with the business	Infrastructure integrated	Proactive change management
3. Defined Innovation	Management commitment	Formal budget allocation	Infrastructure established	Active change management
2. Sporadic Innovation	Tactic tolerance	Project-based allocation	Occasional skunk works	Informal assessment
1. Initial/Ad-hoc Innovation	Ad-Hoc			

Key Mega Trends



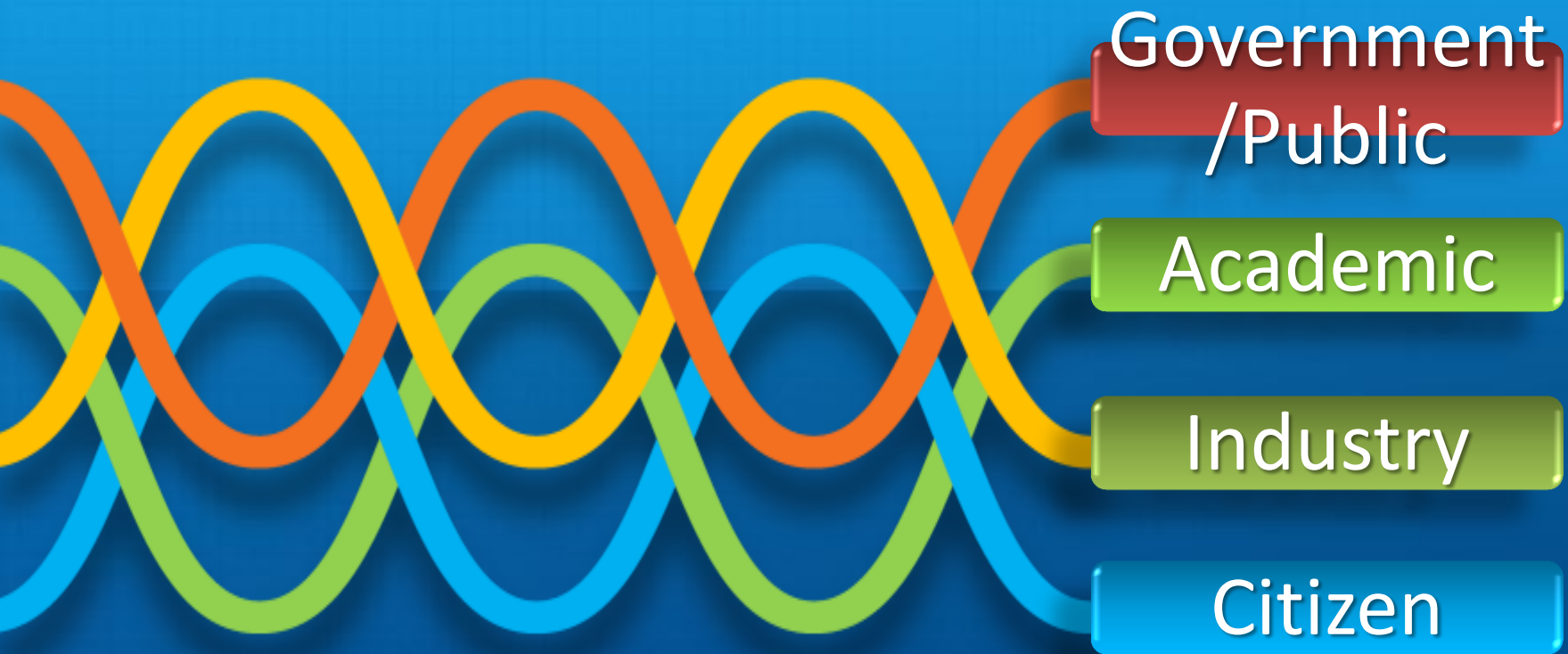
Open Innovation 1.0



Source: Chesbrough

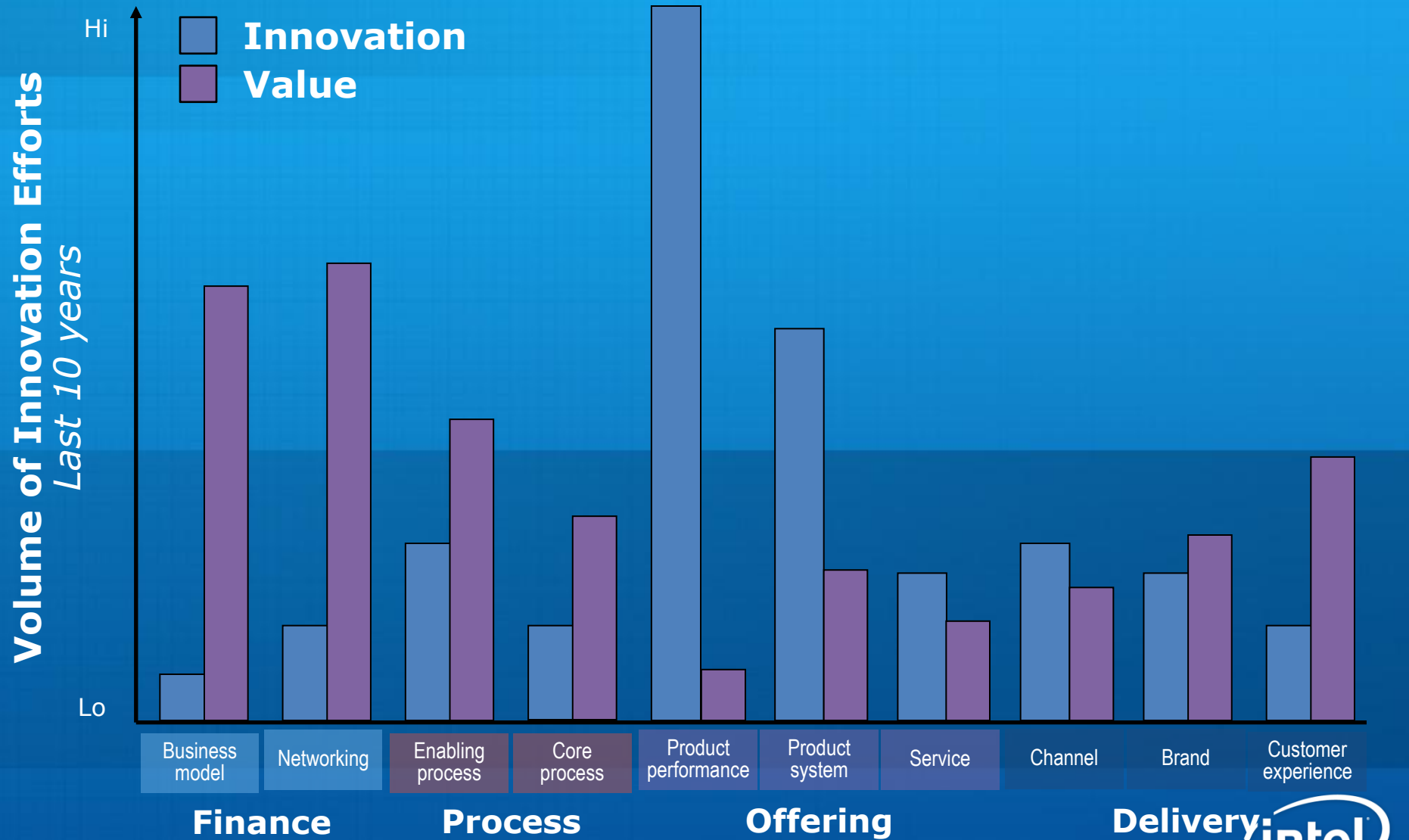
Quadruple Helix Innovation

Government, Academia, Industry and Citizens collaborating together to drive structural changes far beyond the scope of any one organization could achieve on it's own



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Full Spectrum Innovation



Source: Dublin Analysis



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The Rise of the User

User as “Research-Object”

- > Observation and Surveying
- > Prototype Development
- > Testing (Usability, Feasibility, Market Testing)
- > Piloting



User as Innovator

- > Interactive User Feed-back
- > Incremental User Innovation Ideas
- > User Idea Generation
- > User Community innovation
- > Services by Definition “Co-creation”

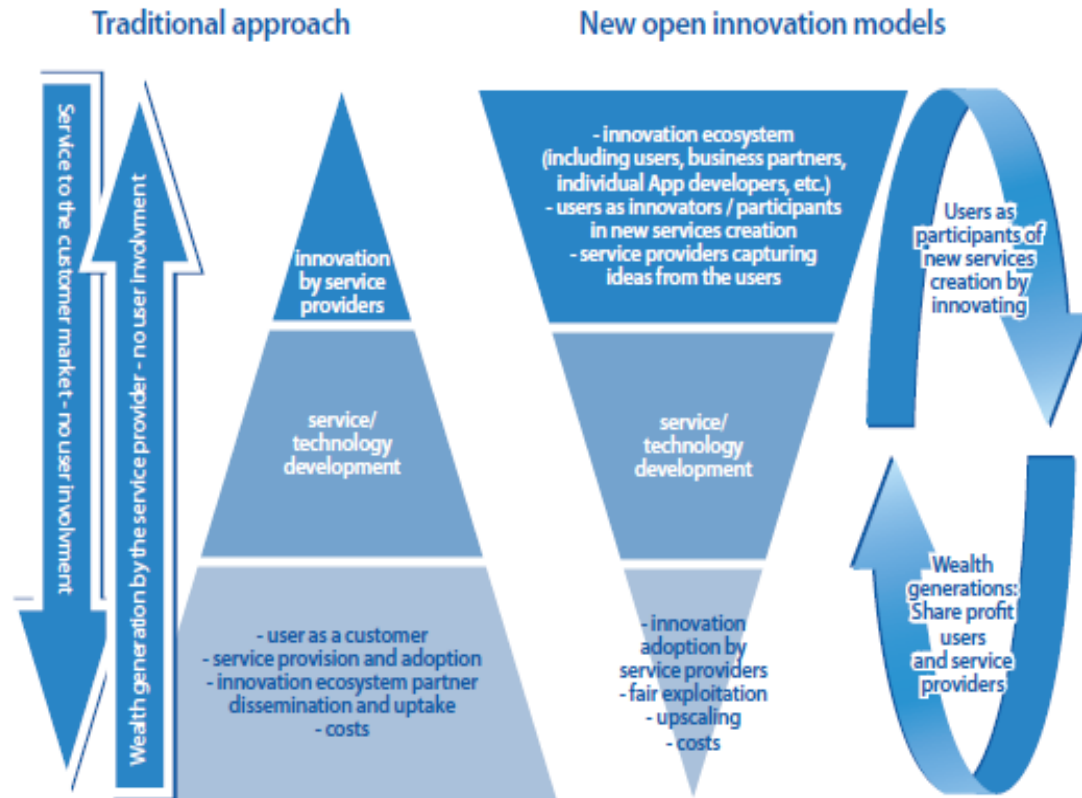
Industry R&D Led



User/User Community Led



Open Innovation Business Models & Platforms



Servitization

What it is?

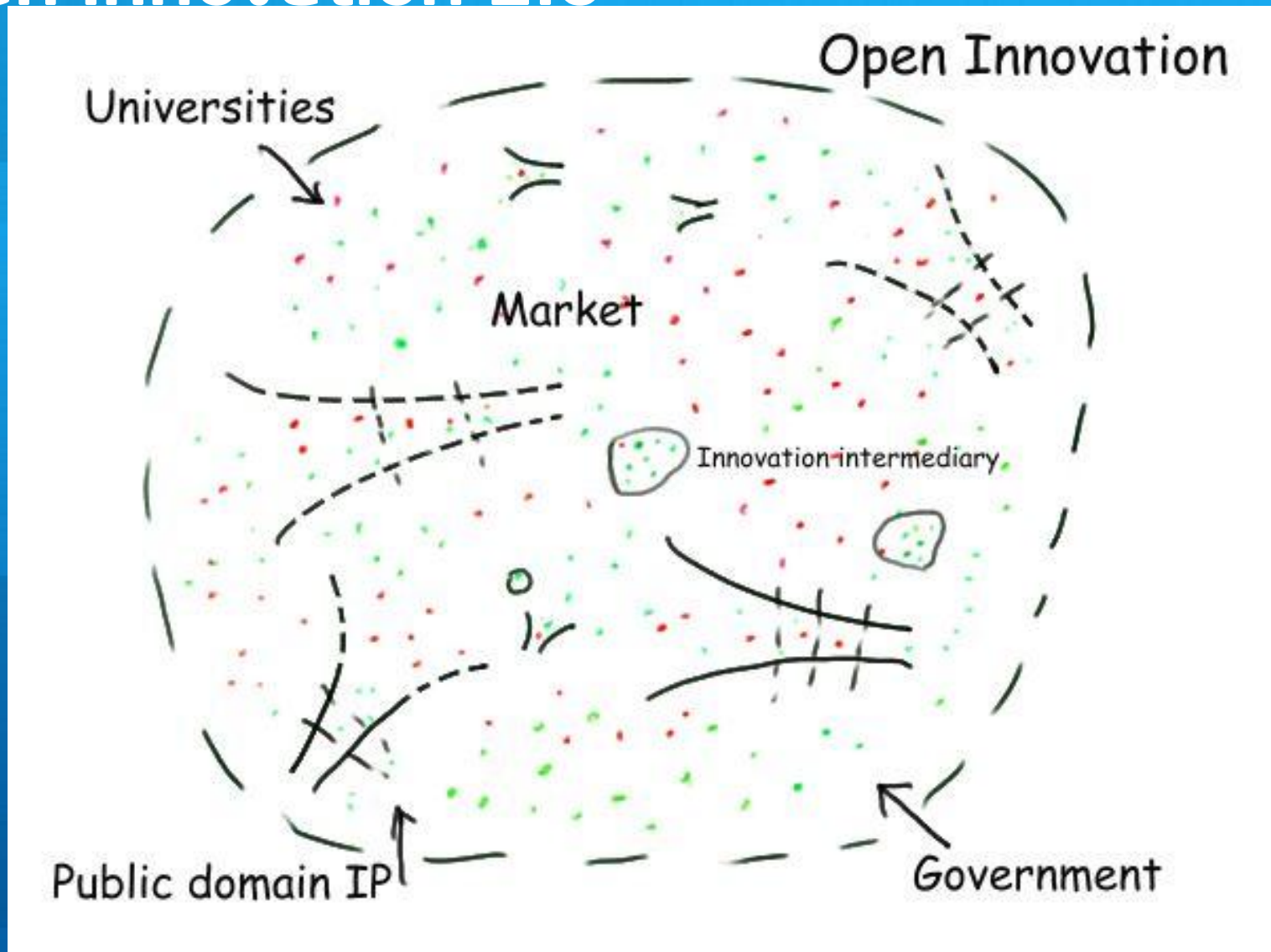
- > From Products to Services
- > From Maximizing Consumption to Optimizing Asset Utilization and Longevity
- > From one time payment to annuities
- > Platforms for Innovations

IT is the enabler



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Open Innovation 2.0



A new milieu



Source: Venkat Ramaswami
Intel Labs Europe

Open Innovation 2.0 in action

Current Membership



Steering Patrons



Patrons



Contributors



Associates

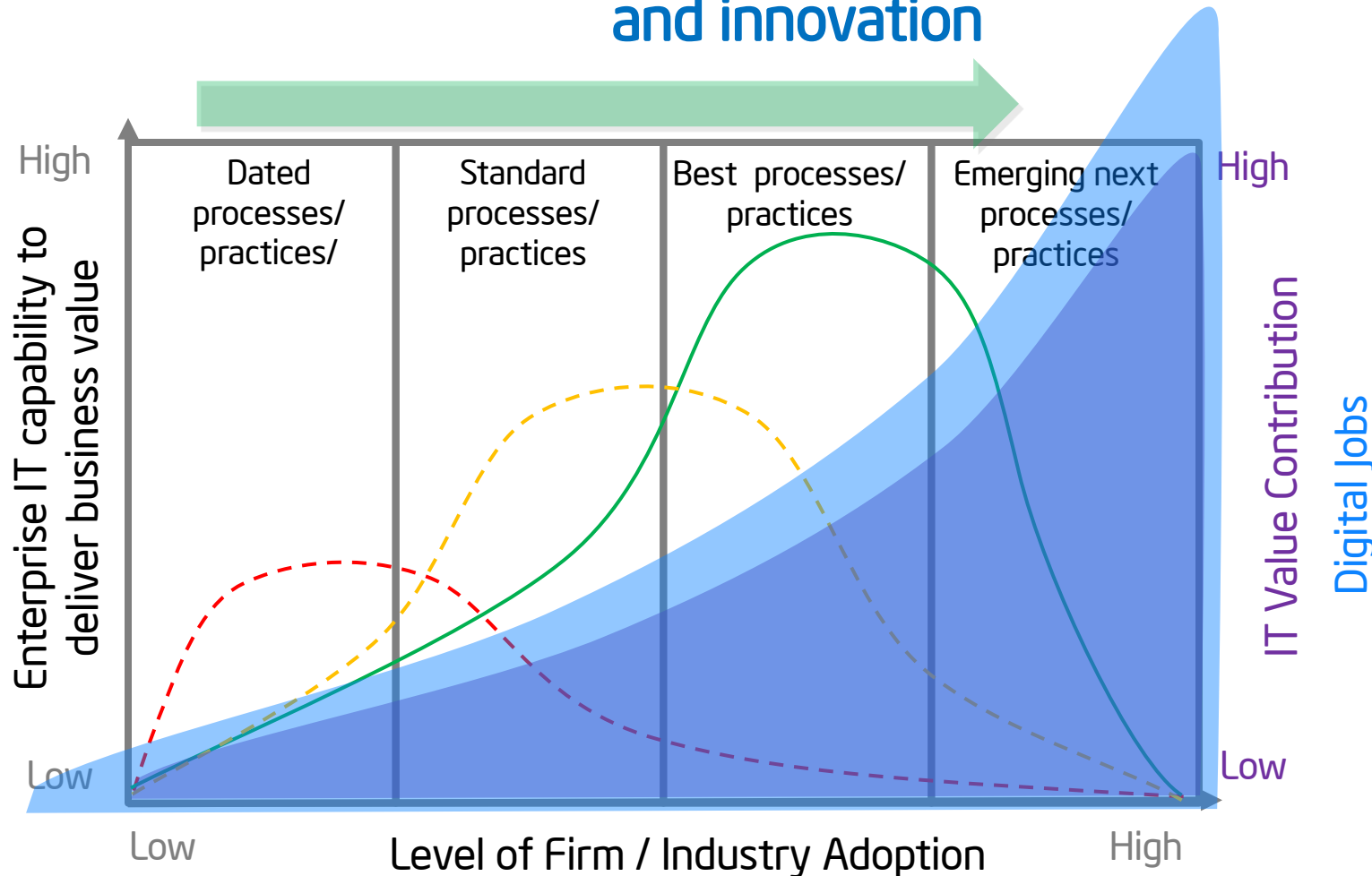


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Intel Labs Europe

IVI Vision: Drive a structural change in the way public and private sector organisations manage IT for business value and innovation



Additional
Analysis

... Re-imagining the World at Light Speed

Knowledge



to



Shopping



to



Communicating



to



Educating



to



Travelling



to



Entertaining



to



Sharing



to



Industries established over a **Century**
re-architected in under a **Decade**

From the Obvious...



Intel Labs Europe

... Re-imagining the World at Light Speed

Smart Grid



to



e-on

ENERNOC

pulse energy

Vigilant

SimpleEnergy

New Services



to



zaarly

taskrabbit

Construction



to



Crossrail

TPX Energy

Agriculture



to



The Way We Work



to



OnForce

Freelance

Desk

Cars



to



Hotels



to



airbnb

CS2
Coast Surfing

onefinestay

When the **impossible...**
becomes **possible**

... to the Not so Obvious



Intel Labs Europe

Innovation: Ideas aren't enough!

Innovation =

Ideas X Execution X Adoption

From Research to Retail

Innovation Value Chain

Horizon 2020
A potential
Gamechanger

Idea Generation

Idea
Implementation

Idea Adoption

Hard?

Harder

Hardest

European
Funding

effort

Innovation: Ideas aren't enough!

Innovation =

Ideas X Execution X Adoption

Strategic Innovation =

Vision (Ideas x Execution x Adoption)

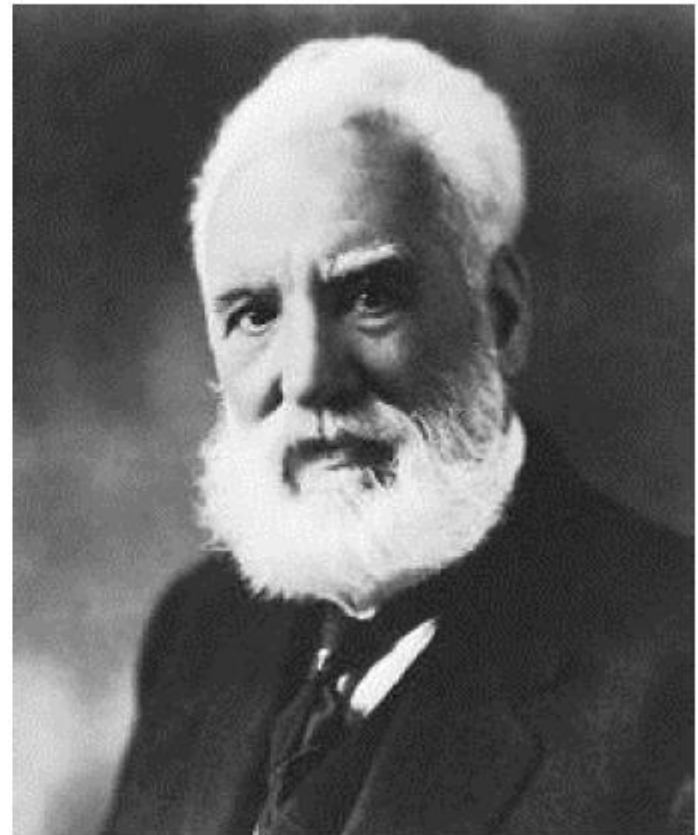
Strategic Innovation is innovation in the context of a vision!

It starts with a Vision.....



„The day is coming
when telegraph wires
will be laid on to houses
just like water or gas
and friends will
converse with each
other without leaving
home.“

Alexander Graham Bell 1875



It starts with a Vision.....



„...I believe that this nation should commit itself to achieving the goal before this decade is out, of landing a man on the moon....“

John F. Kennedy 1961

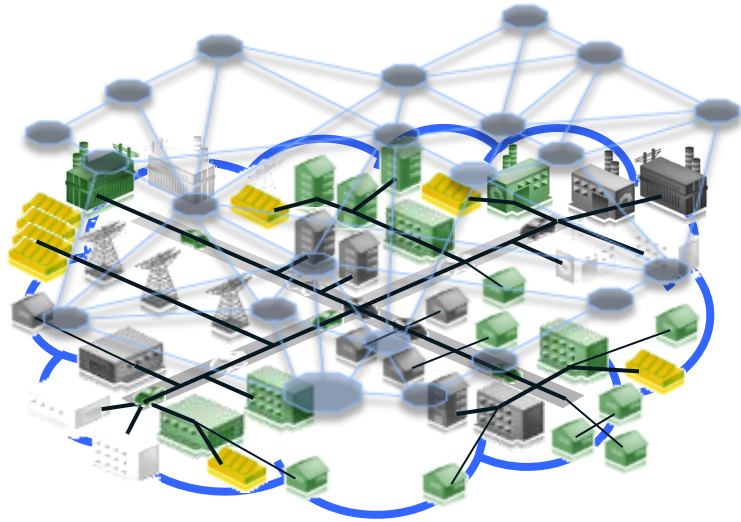


Sustainable Connected Cities Dublin



Intel Sustainable & Connected Cities Institute

*The Concept: driving the computing continuum
and innovating the city of the future*



Imperial College
London



Collaborative Open Innovation



The Testbed: London



Open Innovation at Work!

Our Collective vision!

Europe 2020

the EU's growth strategy for the coming decade.

we want the EU to become a smart, sustainable and inclusive economy to deliver high levels of employment, productivity and social cohesion.



Innovation Agenda: Digital Europe

**E-Services /
Digital Content**



**Digital
Government**



**Digital
Business**

**Broadband/
Wireless**

DIGITAL EUROPE



**Digital
Health**



**Digital
Education**

PCs/Tablets/Phones



**Digital
Home**

**Digital
Literacy**

Delivering...

***An Integrated
Infrastructure***



***A Connected
Society***



***A Competitive
Economy***



..but it takes courage too.





Open Innovation 2.0 – Sustainable Economy and Society

Dublin May 20 & 21 2013

2 days - 300 delegates - 3 venues - 1 technology showcase - public engagement activities - better cities competition - innovation luminary awards dinner



Richard Bruton T.D.
*Minister for Jobs,
Enterprise and Innovation
Irish Government*



Alexander von
Gabain
*European Institute of
Innovation & Technology*



Elias Carayannis
*George Washington
University*



Leif Edvinsson
University of Lund



Venkat
Ramaswamy
University of Michigan



Megan Richards
European Commission



Alexander
Osterwalder
Biz Model Innovation



Justin Rattner
*Managing Director
Intel Labs
VP & CTO Intel Corp*



Sean Sherlock T.D.
*Minister of State for
Research and Innovation
Irish Government*



Thierry van
Landergem
*Bell Labs /
Alcatel Lucent*



Paul Stein
Rolls Royce



Peter Van Manen
McLaren



Naoise Ó Muirí
Lord Mayor of Dublin



Sean O'Driscoll
Glen Dimplex

With video contributions from:

Professor Stephen Hawking and European Commissioners Neelie Kroes, Máire Geoghegan-Quinn and Androulla Vassiliou.

Presented
by:



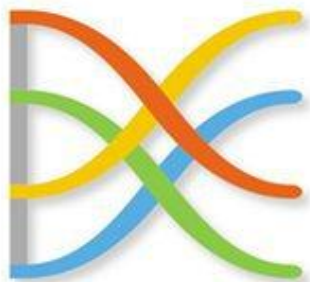
Conference
Chairs:



Martin Curley
*VP Intel Labs Europe
Chair OISPG*



Bror Salmelin
*Advisor DG Connect
European
Commission*



Open Innovation 2.0

Sustainable Economy & Society -
Stability. Jobs. Prosperity.

Dublin, Ireland
May 20-21 2013

Thanks!



Martin.G.Curley@intel.com

EU Open Innovation and Strategy Policy Group: 2013 Outlook available shortly

available at
www.open-innovation.eu



Prof. Dr. Martin Curley, Chairman



Dr. Richard Straub, Vice Chairman



Dr. Anna Sadowska, Rapporteur



Bror Salmelin, Advisor to DG INFSO