

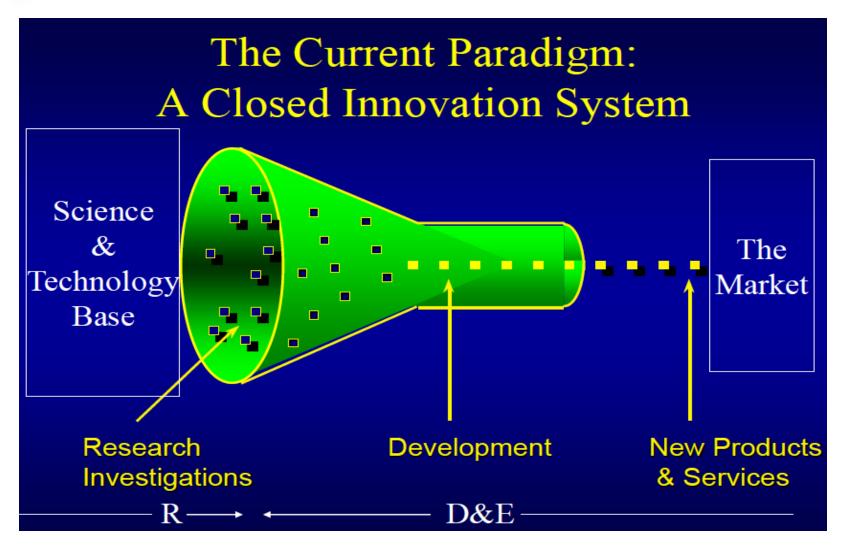
# Policy, regulation and governance conditions for Open Innovation: Toward an 'enabling framework'

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# Part 1: From 'closed' to 'open' innovation?

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Source: Henry Chesbrough, 2008, 2012.

#### Part 1: Transformative tendencies (structural)...

## What has changed and drives Open innovation?

- 1. Transition from goods to service based economy
- 2.Globalization and regionalism
- 3. Erosion of oligopoly market positions
- 4.Deepening of the completion of the SEM
- 5. 'Europe 2020'
- 6.Environmental/energy constraints
- 7. More industry aligned relevant university departments (qualifications apply)
- 8.Increasingly mobile trained workers
- 9.Reconfiguration of the R&D global topology: 'R' coming closer to 'D'?
- 10. Financial crisis...
- 11....



## Open Innovation encompasses three sets of dimensions:

- 1. There is the inside-out movement, or *technology exploitation*, in which existing technological capabilities are leveraged outside the boundaries of the firm;
- 1. There is an outside-in movement, also referred to as *technology exploration*, in which external sources of innovation are used to enhance current technological developments;
- 1. In a fully open setting, companies combine both *technology exploitation* and *technology exploration* in order to create maximum value from their technological capabilities or other competencies.

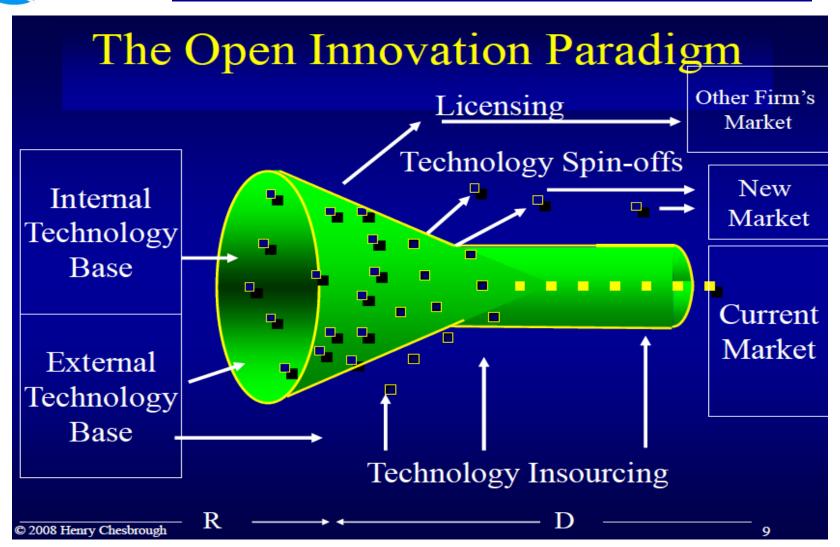


#### Part 1: Transformative tendencies leading to Open Innovation...

Leading EU approaches refer to the involvement of *all* actors in the innovation ecosystem... and focus on:

- Extensive networking between all actors involved in the innovation process (including industries, universities and research organizations, public entities, end-users and end-user communities) to enable the development of positive spillover effects within the ecosystem;
- •User involvement and user centricity, to involve the user throughout innovation since he is both the starting point (technological needs) and the ultimate aim (service convergence) of innovation. This reflects a "service pull" model of innovation, where the role of the user is critical;
- •Innovation thus becomes a *co-creation* process between the industry or service provider and the user. Related to this is a form of crowdsourcing, to capture valuable ideas produced by communities, and essential to make the best use of 'societal capital'.

Part 1: Where are we going...?



Source: Henry Chesbrough, 2008, 2012.

## Part 2: Contextualizing the 'Open' in Open Innovation

And 'Open Innovation' in the EU context...

#### Part 2: Opportunities & advantages of OI for SMEs

## Opportunities for SMEs:

- Large firms increasingly value collaborative partnerships
- Large firms create platforms seek supportive investments from SMEs
- Users initiate more innovation activities, a big opportunity for SMEs
- SMEs can expand geographically now at lower cost
- Greater rewards to specialization in Open Innovation

#### Advantages of SMEs:

- Size: Markets that are too small for large firms can be attractive
- Focus: greater ability to execute for a specific segment or set of customer needs
- Specialization: ability to develop deep knowledge of a specific domain
- Entrepreneurial: external focus on results, much less internal politics
- Speed: faster decisions, faster execution, faster results

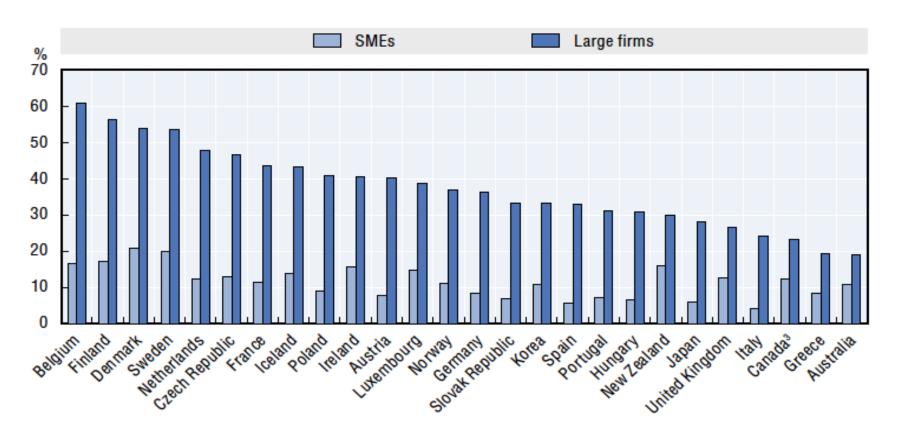
#### Part 2: Challenges of OI for SMEs

## Challenges facing SMEs:

- Less internal R&D capability
- Less ability to absorb external R&D
- Less market power, weaker ability to capture value
- Less IP (usually, not always)
- IPR enforcement often too expensive
- Alignment of business models with broader social and societal changes
- Environmental compliance and energy efficiency
- Product and service design: green/grey issues
- Legal issues and IPR management: Are Intellectual Property laws and enforcement sufficient for Open Innovation? Will stronger IPR regimes help or hurt the inflow and outflow of ideas?
- Marketing, branding and design methods: the potential and liability of social network technologies
- New forms of cross-regional and cross-border business organization.

#### Part 2: The SME difference...

#### Companies Collaborating in Innovation Activities (by size)



Source: OECD, Open Innovation in Global Networks, Paris 2011.

## Part 3: Toward a policy a regulation 'matrix'

Toward a policy and regulation matrix in support of Open Innovation...



#### Key policy and regulation issues of OI

- Trends toward commercial 'territorialization' of the Internet
- •Trends toward protection and challenges to 'net neutrality'
- •Online Identity, including anonymity, digital presence, rights to delete information, etc.
- •Trust, including risk drivers, actors at risk, risk management, etc.
- Security of communications, including legal implications
- •Digital citizenship, including individual and corporate rights and responsibilities, etc.
- •Content regulation, including copyright, licenses, open access, etc.
- •Online communities, including social networks, virtual relationships, etc.
- •Relationships between consumers and suppliers online
- •Trends in the regulation of network operators (regulatory variance regarding 'open access')
- •Cloud computing, including the risks and benefits of virtual access to information, etc.
- •Green Internet issues, including reducing the carbon footprint of the ICT sector, ewaste, etc.
- •Internet-driven social impacts (social networks, fraud, piracy etc.)
- Licensing, certification, regulations, policies
- Standardization and interoperability: policy/regulation vs. market dynamics
- •Operational: trends in the design and delivery of clustered services
- Trends in user-centric service design and open innovation
- •Policies, regulations and governance issues as they relate to emerging business models
- •Access and social inclusion: demographic and minority dynamics
- •Digital literacy, skills and inclusion.

#### Toward a multi-level governance framework for OI

- •The *vertical* dimension of multilevel governance recognizes that EU institutions and national governments cannot effectively implement OI strategies without working closely with regional and urban/local governments as agents of change. A multilevel governance approach also recognizes that urban/local governmental authority required to act in areas related to OI is often "nested" in legal and institutional frameworks at higher scales.
- •The *horizontal* dimension of multilevel governance acknowledges the opportunity for learning, information transmission and cooperation across EU, national, regions, and urban/local governance structures. Horizontal governance activities can give government, business, research and non-governmental organizations influence in the OI policy dialogue process. The horizontal dimension of multilevel governance is also associated with improving coordination across EU, national and regional authorities to implement cross-sectoral OI initiatives.

### 'Matrix' of policy, regulation and governance for Open Innovation

#### Module 1: Methods for analyzing OI policy/regulation/governance and processes

Policy process and actors	Stakeholder analysis, actor network analysis, key informant interviews		
Social power structure	Power analysis, social maps, strategy flow diagrams, institutional analysis		
Policy priorities	Interviews, policy mapping, policy ranking, visioning.		
Policy context	Document analysis, time lines, policy mapping		
Policy statements	Document analysis, key informant interviews		
Policy measures	Document analysis, key informant interview		
Institutions & organizations	Institutional analysis, social maps, power analysis		

#### **Module 2: Identifying OI stakeholders**

OI issue	1st Order stakeholders Whose interests are directly affected by OI	2 <sup>nd</sup> Order stakeholders Whose interests are indirectly affected by OI	3rd Order stakeholders Who 'influences' or has a interest in the issue
		•	



### 'Matrix' of policy, regulation and governance for Open Innovation

#### Module 3: OI Stakeholder analysis

Stakeholder group	Nature of interest in OI	Potential impact	Relative importance of interest	Importance of group	Influence (power of group
1 <sup>st</sup> Order					
stakeholders					
2 <sup>nd</sup> Order					
stakeholders					
3rd Order					
stakeholders					

# Module 4: Methods for identifying strategies & interventions for policy, regulation and governance change

Planning for change	"Visioning", logframes for institutions/		
	organisations/ sectors, participatory workshops,		
	focus on policy process, leverage points		
Identifying & mobilizing change agents  Institutional analysis, steering groups, "			
	review" groups		
Recognizing & managing barriers to change / Participatory & integrated policy developm			
conflicts	informing & influencing strategies, conflict		
	analysis, consensus building, trade-off analysis		
Building support for reform	Communications strategy, media		
Reforming institutional & organizational	Hub model, 4Rs		
structures			
Consolidating change	Long-term planning		



## 'Matrix' of policy, regulation and governance for Open Innovation

#### Module 5: Who are the OI "actors" involved?

	Identify 'subjects' for change Understanding their roles		
	Who needs to be changed?(informed and	At what stage in the policy process do they	
	influenced)	operate?	
_	Primary stakeholders	<ul> <li>Knowledge generation/ research</li> </ul>	
<b> </b> -	Politicians	<ul> <li>Agenda setting</li> </ul>	
-	Bureaucrats - national and local	<ul> <li>Option identification</li> </ul>	
-	Private sector groups	<ul> <li>Prioritization of options</li> </ul>	
-	Local elites or interest groups	<ul> <li>Policy formulation</li> </ul>	
-	Policy networks	<ul> <li>Policy legitimization</li> </ul>	
<b> </b> -	Academics	<ul> <li>Planning for policy implementation</li> </ul>	
<b> </b> -	Grassroots groups / organizations or NGOs	<ul> <li>Review and evaluation</li> </ul>	
_	Bilateral partners	<ul> <li>Review of policy and policy implementation</li> </ul>	

#### Module 6: Understanding institutional roles in OI

Identify roles in OI		I dentify changes	
What is the role of each subject?		How do they need to change?	
-	What are their rights?	-	Knowledge/skills
_	What are their responsibilities?	-	Attitude
_	What are their relationships with other actors?	-	Behavior



### 'Matrix' of policy, regulation and governance for Open Innovation

#### Module 7: Understanding incentives and constraints in the transition to OI

	Identify incentives		Identify opportunities and constraints	
W	What incentives or forces are likely to influence		What opportunities or constraints affect this	
	them?		change?	
_	Political or powerful pressure	_	Past policies	
_	International pressure/persuasion	l –	Policy complexity	
_	Bilateral pressure/persuasion	l –	Institutional constraints	
_	Bureaucratic pressure	<b> </b>	Feasibility	
_	Evidence from action in the field	<b> </b>	Patronage	
_	Private sector pressure	<b> </b>	Rent seeking	
_	Interest groups e.g. NGOs	<b> </b>	Cost	
_	Policy networks	<b> </b>	Consensus	
_	Academic evidence			
-	Grassroots pressure/persuasion			

#### Module 8: Identifying measures and implications

Identify actions What needs to be done?	Identify resources What resources are required?	Assess implications What are the wider policy implications of this change?
<ul> <li>Generate evidence</li> <li>Inform, disseminate</li> <li>Facilitate discussion</li> <li>Combine forces &amp; form coalitions</li> <li>Lobby</li> <li>Provide resources</li> </ul>	<ul><li>Time</li><li>Money</li><li>People</li><li>Linkages / alliances</li></ul>	<ul> <li>On other policies</li> <li>On policy implementation</li> <li>On resources</li> <li>On other institutions</li> </ul>



#### **Thank You**

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