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# Stakeholder Analysis of a Platform and Ecosystem for Open Innovation in SMEs

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# Agenda

- Introduction
- Innovation Intermediary Platform
- Stakeholder Analysis
  - Innovation Commercializer
  - Innovation Funder
  - Innovation Generator
  - End User
  - Platform Operator
- Conclusion



# Introduction

- Innovations more and more critical
  - Increasing competitiveness of globalised economy
- Innovation an effective means to differentiate against competitors
- Innovative enterprises need to be agile and fast to the market
  - to avoid leapfrogging and imitation
- EU SMEs' contribution to employment growth between 2002 and 2007 (84%) much larger than share in total employment (67%)



# Introduction



- Adoption of Open Innovation in SMEs is growing
  - Still much lower than in larger enterprises
  - Depriving them of a central strategy for increased growth and competitiveness
- Our Aim: Support SMEs' uptake of Open Innovation practices by offering a platform
  - enabling stakeholder dialogue
  - helping identify scenarios where coopetition or value network approaches involving several SMEs can lead to sustainable win-win situations
- In addition to innovative SMEs, the platform also addresses investors and innovation integrators

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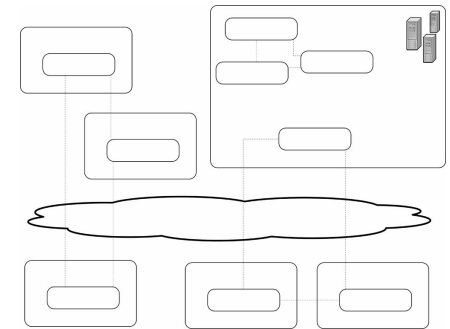
# Innovation Intermediary Platform – Main Components

- A community portal
  - acting as entry point
  - hosting community support services
  - e.g. discussion boards
- A set of agents extracting information
  - From external data sources
  - WWW or semantic web
  - E.g. publication databases, technology blogs
- Semantic Knowledge Base aggregating information from agents
  - E.g. user feedback, experiences from previous projects or data mining
  - Data is the base for e.g. technology forecasting and decision support in different phases of network-centric innovation processes.

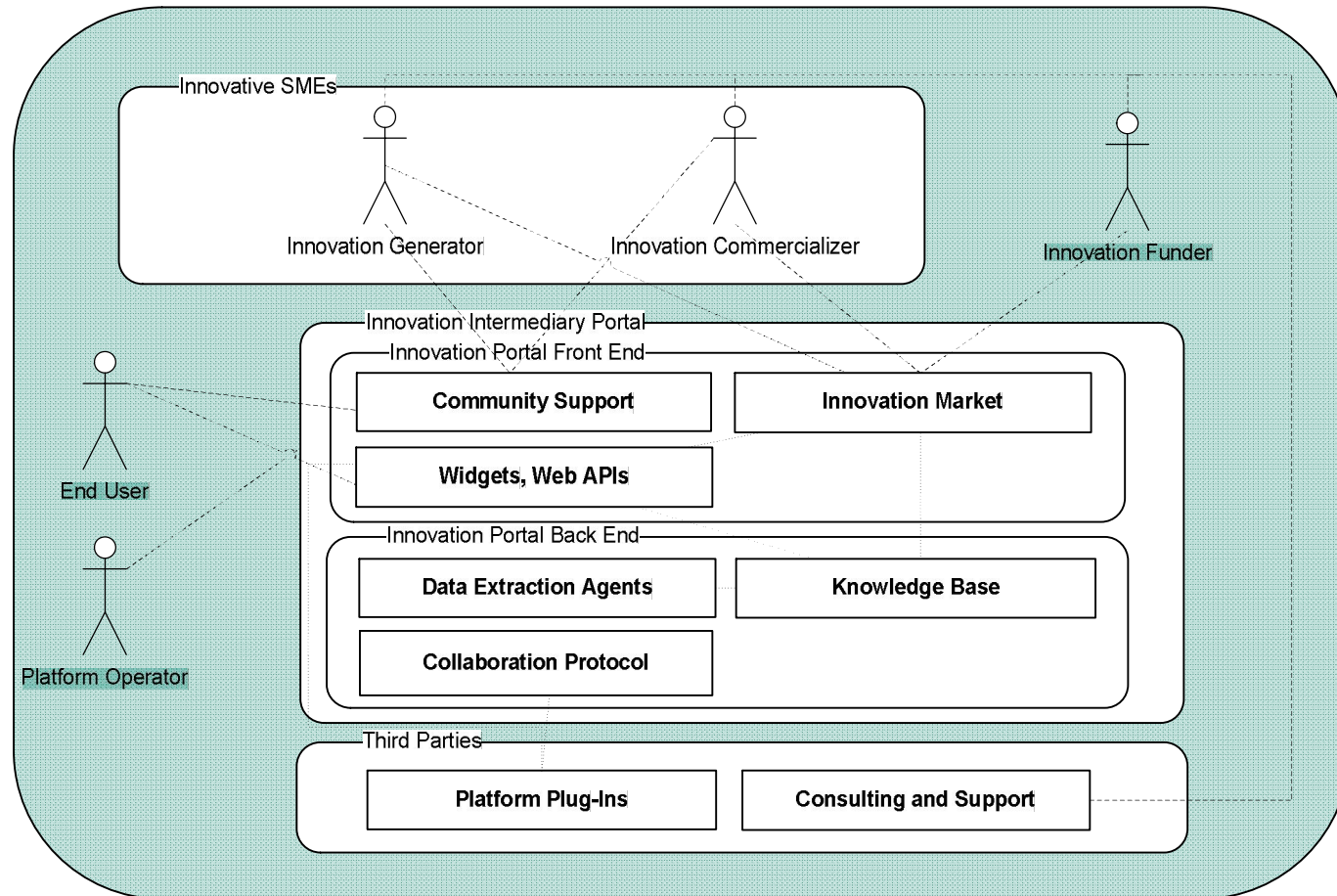


# Innovation Intermediary Platform – Main Components

- Widgets and Web APIs
  - E.g. feedback mechanisms for new or emerging products
  - Main source of input to the system besides agents
  - Often based on earlier agent input
  - Provide feedback from users to fine-tune the system
- A collaboration protocol definition
  - Allowing collaboration tools implementing it to be able to become part of a temporary network of businesses or individuals within or beyond the platform.
  - Portal mode is aimed at small SMEs
    - leveraging SaaS approach to lower adoption barriers
- Web APIs and collaboration protocol enable an ecosystem of third party plug-ins that may be integrated in the platform.



# Innovation Intermediary Platform - Identified Stakeholders



## ■ Stakeholder Roles (based on Open Innovation)

- Innovation Commercializer, Innovation Funder, Innovation Generator, End User, Platform Operator



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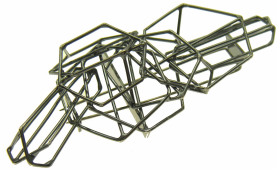
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# Structure of Analysis

Analysis structured along main inhibitors identified in literature<sup>1</sup>:

- **Revenue Model:** All stakeholders need assurance that the platform provides appropriate benefits/revenues to them.
- **Chicken-Egg Problem:** As a multisided platform, getting all stakeholder groups to adopt at the same time is a problem, as value to one side of the platform often depends on adoption of other stakeholders.
- **Risk/Trust:** Potentially valuable intellectual property disclosed in the platform needs to be protected adequately.



<sup>1</sup>Kafentzis, K., Apostolou, D., Mentzas, G., Georgolios, P.: A Framework for Analysis and a Review of Knowledge Asset Marketplaces. Practical Aspects of Knowledge Management. pp. 301-313 (2002).

# Identified Stakeholders and Roles: Innovation Commercializers

- Innovation Commercializers
  - Marketers
  - One-stop Centres
  - Main role: drive the commercialization of innovation
- Revenue Model:
  - Pick and match innovations
  - Opportunity to evaluate innovations' market potentials



# Identified Stakeholders and Roles: Innovation Commercializers

## ■ Chicken-Egg Problems

- Benefit directly from platform, even if no innovation explorers are present:
  - Semantic agents
    - Aggregating information on innovations
    - Providing information relevant in the commercialization process

## ■ Risk/Trust

- Need to make sure discovered innovative technologies meet requirements
- Can be realized as service level agreements, contractual obligations negotiated between the parties

# Identified Stakeholders and Roles: Innovation Generators

## ■ Innovation Generators

- Innovation Explorers
- Merchants
- Architects
- Missionaries
- Main Role: provide innovations

## ■ Revenue Model

- Main Benefit: identify uses for innovations and commercialize them
- Architects/Merchants: Offer services to identify and integrate third party innovations
- Missionaries: influence product development to more closely match their vision.



# Identified Stakeholders and Roles: Innovation Generators

## ■ Chicken-Egg Problems

- Collaboration...
  - between innovation generators in different fields
  - between explorers and architects/merchants
- ...creates value through product and service innovation



## ■ Risk/Trust

- need to protect their innovative intellectual property
- cannot accept unregulated presentation of their ideas on the platform
- platform offers processes that disclose e.g. relevant innovation generators, but does not disclose the relevant innovations

# Identified Stakeholders and Roles: Innovation Funders

## ■ Innovation Funders

- Innovation Investors
- Benefactors
- Main Role: Provide funding for innovative projects

## ■ Revenue Model

- Benefit from combination of innovations with relevant user feedback
- More precise ex-ante valuation of innovations



# Identified Stakeholders and Roles: Innovation Funders

- Chicken-Egg Problems
  - Semantic agents aggregating information on innovations from the web
  - Providing information that can already be used for
    - Technology forecasting
    - Ex-ante evaluation of investments they may make outside of the platform
- Risk/Trust
  - Funding innovations inherently risky
  - Platform can hardly mitigate this risk
  - Platform will only be used for match-making, not for e.g. an actual transfer of funds



# Identified Stakeholders and Roles: End Users

- End Users
  - Early Adopters
  - Lead Users
- Main Role: Provide feedback on their expectations and experiences
- Revenue Model
  - Are empowered to influence the development of new products
  - Challenges with rewards for the successful solving of specific problems
  - Innovation Architects or Commercializers may provide incentives such as coupons or early access to products



# Identified Stakeholders and Roles:

## End Users

### ■ Chicken-Egg Problems

- Platform provides widgets directed at the users
  - helping them in visualizing innovation-relevant facts
  - at the same time collecting their feedback
- Also aimed at multipliers like technology blogs
  - may employ such a widget to e.g. host a survey considering a specific innovation

### ■ Risk/Trust

- User providing an idea may want to protect it against misuse
- Similarly to Innovation Generators

# Identified Stakeholders and Roles: Platform Operator

- Platform operator
  - Open Innovation-related Role
  - Independent Entity
- Revenue Model
  - Offer advanced premium services to paying customers
  - Advertising
  - Data-mine non-paying customers
  - Offer consultancy to third parties developing services for the ecosystem



# Identified Stakeholders and Roles: Platform Operator

- Chicken-Egg Problems
  - Web mining mitigates effect for many stakeholders
  - Promoting platform is essential
- Risk/Trust
  - Platform operator needs to be trusted partner
    - Should be made clear what data is mined and what data isn't
  - If Platform Operator is involved itself, may want to consider a more distributed deployment of the platform

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# Conclusion

- Innovation intermediary platform design
- Meeting elicited Open Innovation stakeholder requirements
- Viable incentives and revenue models for all participants
- Addressed the chicken-egg problem often troubling multi-sided platforms by employing a combination of semantic technologies and stakeholder feedback



# Thank You

Questions? Remarks?



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