Organization of this presentation

• Why this case?
• Methodology: illustrative case study
• Research question: how do strategy and operation co-evolve during the journey from Closed to Open innovation?
• Situating the case: Open Innovation in a Downturn
• The Open Innovation model applied
  – A different look at appropriability of innovation
  – R&D project management
  – Open innovation in a downturn
Three persons behind this story

“the international company Fiat is the only route to survival for Chrysler.”
March 30th 2009

“Fiat has demonstrated that it can build the clean, fuel efficient cars that are the future of the industry, and as part of this agreement, Fiat has already agreed to transfer billions of dollars in cutting-edge technologies to Chrysler to help them do the same. Fiat is also committed to working with Chrysler to build new fuel-efficient cars and engines right here in America.”
April 30th 2009
“Only six automakers will see the end of the worldwide financial downturn. The only way for companies to survive is if they make more than 5.5 million cars per year”.

*December 2008*

(Fiat is approx 2 million cars..)
Three persons behind this story

“I finally know how to call the model I have been using in all these years at CRF!”

Berkeley, 2005 in a conversation with Henry Chesbrough
Methodology based on great **access** to primary sources (1993-2003)

- 1994: Corporate R&D down 70%
- hunting for external clients
- pricing innovation

Source: CRF Internal presentation, 1993
CRF’s revenues from outside the Fiat Group
Does it look familiar?

Source: CRF Internal presentation, 2003

- **Defensive goal**: find a way to maintain FIAT’s technology base, in a time of shrinking budgets
- Ideas that we can trace back to Open Innovation central to this strategy
- **From corporate strategy to operations**.. Let’s see how.
A new level of Appropriability
For transferring competitiveness

• Strategy:
  – CRF new mission “instead of simply selling research, CRF is dedicated to providing competitiveness to its customers as a matter of principle”
  – Learning about Marketing of Technology
    ▪ Select the "right" projects to transfer
    ▪ Select the "right" clients.. To turn them into long term partners
Selecting the “right” customer to work with

- Turn customers into long-term partners
- Informal relationship preferred to market research
- Researchers with a briefcase

Customer R&D expend. with CRF / Total CRF R&D expend.

Customer R&D expend. with CRF / Tot. customer R&D expend.
A new level of Appropriability  
For transferring competitiveness

• **Strategy:**
  – CRF new mission “instead of simply selling research, CRF is dedicated to providing *competitiveness* to its customers as a matter of principle”
  – Learning about **Marketing of Technology**
    - Select the "right" projects to transfer
    - Select the "right" clients.. To turn them into long term partners

• **Operations:**
  – A matrix structure and Research Promotion Function
  – **HR central** to manage competences and high turnover
  – **R&D Project portfolio management**: cool&risky ideas + plug&play
  – The concept of “**micro-clients**”
  – Intellectual property management (the **Bosch** case)
Selecting the “right” technology to be transferred is easier said than done


- **Execution**: The case of Bosch: “Fiat lost out on billions in potential revenue by selling the technology”
A different perspective on R&D projects

• **Strategy:**
  - Clients **might not know** what they want/ how to price it
  - Marketing of technology related to competitiveness:
    **C.C.C.P.** (Competitiveness for Customers at Competitive Prices)
Levitt’s 4 Levels: imagine having friends over for dinner

- **The shopping list**
- **The cooked meat**
- **The main course; sides and wine**
- **A nice dinner**

![Diagram showing Levitt's 4 Levels]

**Generic Product** → **Expected Product** → **Integrated Product** → **Potential Product**

**Generic Product**
- Basic requirements from the customer
- Time and costs of R&D
- Outputs impact on the market (functional specifications, quality and reliability)

**Expected Product**
- Impact on the customer company
- Specifications: design standards, testing, production...
- Organization: training, new professional profiles, ...
- Information systems: data bases, CAD, CAD/CAM, ...
- Investments...

**Integrated Product**
- Integration at different company levels
- Technical: integration between computing, design and testing
- Technical/technological: simultaneous engineering, co-design with suppliers
- Technical/technological/marketing

**Potential Product**
- Further product developments, synergy with customer products, opportunity for customer diversification,...
A different perspective on R&D projects

• **Strategy:**
  – **Clients might not know** what they want/ how to price it
  – Marketing of technology related to competitiveness: **C.C.C.P.** (Competitiveness for Customers at Competitive Prices)

• **Operations:**
  – **Bottom up planning** and evaluation. Microfoundation of project management. The Project/output sheets
  – A new type of **lab employee**: Researchers, Project managers, Marketers
Open Innovation in a Downturn

• **Strategy:**
  – A clear/extreme mandate
  – It takes **time** to implement
  – **Entrepreneurial** spirit
Open Innovation in a Downturn

• **Strategy:**
  – A clear/extreme mandate
  – It takes **time** to implement
  – **Entrepreneurial** spirit

• **Operations:**
  – Leadership and commitment
  – **Creative resource management** (EU, clients)
  – Pressures on the organization and **stress** levels
  – Central role of **planning**: know what you transfer
The role of EU Projects

- From €2 million in 1992 to €20 million in 2000
- Organizational and strategic advantages:
  - Training
  - Free benchmark exercises
  - Network of relationships

European carmakers’ participation in the EU EUCAR V Framework
Concluding Remarks: Relevance for Operations

• The role of the Open Innovation Champion:
  – Senior executive leadership critical to open up the innovation process
  – What happens next?

• Business model alignment
  – Transferring competitiveness to external (and internal) customers
  – Can we transfer competitiveness to competitors?
  – The process starts (and sometimes ends..) with individual researchers

• The relevance of organization
  – A complex transition: (HRM, IP, project management…)


Concluding Remarks: Relevance for Strategic Planning

• Open Innovation as a **bifocal strategy** during tough times
  – OI as a response to shorttermism in difficult times?
  – OI to both strengthen operational efficiency AND enhance R&D effectiveness?

• **Tough times require tough leadership and anticipation**
  – External circumstances are triggers of change
  – ..but change that has been anticipated and with someone to direct change
  – The wake up call can arrive too late
  – What is the trigger of OI? goldmine? Fire? Both?

• **Micro-tuning and adaptation for macro-change**
  – Planning and implementing OI starts from people and projects..
Thank You for Your Attention

Alberto Di Minin
www.diminin.it
BACK – UP Slides
1. Obsessed with transferring competitiveness

- CRF new mission: “instead of simply selling research, CRF is dedicated to providing competitiveness to its customers as a matter of principle”
- C.C.C.P. (Competitiveness for Customers at Competitive Prices)
- The concept of “micro-clients”
Selecting the “right” technology to be transferred is easier said than done


- **Execution**: The case of Bosch:
  “Fiat lost out on billions in potential revenue by selling the technology”
3. Transferring competitiveness starts with careful planning

- **Problem: Customers**
  - do not always know what they really want and
  - they are more likely to pay for technology with a visible impact

- **Solution:**
  - The output sheet (see appendix of the paper)
  - Levitt (1983)’s culinary interpretation
Levitt’s 4 Levels: imagine having friends over for dinner

- The shopping list
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Diagram:

- **Generic Product**: Basic requirements from the customer
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4. Selecting the “right” customer to work with

- Turn customers into long-term partners
- Informal relationship preferred to market research
- Researchers with a briefcase
5. The role of EU Projects

• From €2 million in 1992 to €20 million in 2000
• Organizational and strategic advantages:
  – Training
  – Free benchmark exercises
  – Network of relationships
6. Organizing for Open Innovation

• **Structure:**
  – an horizontal dimension into the matrix structure: the critical role of the External Business Units
  – A new Research Promotion function

• **Planning**
  – The central role of planning: know what you transfer!
  – Strategic planning starts from individual projects
  – Manage “by the numbers”: indicators, objectives, performance..
  – Control over IP next to the lab

• **People**
  – A new role to HRM: creating an O.I. researcher and dealing with high turnover
Concluding Remarks: Relevance for research in Org Studies

• The role of the Open Innovation Champion:
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  – What happens next?

• Business model alignment
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• The relevance of organization
  – A complex transition: (HRM, IP, project management…)
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