Innovation basée sur la recherche

Laurent Miéville (Unitec)
Jean-Pierre Paccaud (Global Antibiotic R&D Partnership)
Factor-Driven Economy

- Cheap labor / natural resources

Investment-Driven Economy

- Start of University-Industry research collaboration
- Companies can absorb best available foreign technologies

Innovation-Driven Economy

- Supply of scientists and engineers
- Quality of research
- University-Industry research collaboration
- VCs
  - Intense local competition
  - Ability to innovate at world’s technology frontiers
- Create unique product designs
- Sell products and services globally

## Où trouver des idées ?

<table>
<thead>
<tr>
<th>Sources used to develop new ideas or commercialize new business, % of respondents who are top managers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dedicated product-development teams, groups within business units</td>
<td>56</td>
</tr>
<tr>
<td>Partnerships with academia, research centers</td>
<td>34</td>
</tr>
<tr>
<td>Centralized innovation initiative teams</td>
<td>25</td>
</tr>
<tr>
<td>Centralized innovation group or unit (e.g., department that is cost center)</td>
<td>20</td>
</tr>
<tr>
<td>Traditional R&amp;D center</td>
<td>17</td>
</tr>
<tr>
<td>Outsourced R&amp;D (e.g., to another organization or geography)</td>
<td>14</td>
</tr>
<tr>
<td>Corporate venture capital fund</td>
<td>7</td>
</tr>
<tr>
<td>None of the above</td>
<td>15</td>
</tr>
</tbody>
</table>

*How companies approach innovation*

McKinsley Quarterly, October 2007
Easter parade on 5th Avenue in NYC
Year 1900

Easter parade on 5th Avenue in NYC
Year 1913
In the mid-1980s AT&T hired McKinsey & Co to forecast cell phone adoption by the year 2000.

**Their (15-year) prediction:**

900,000 subscribers

They were off by a factor of:

120x

**The actual number was:**

109 million
What is Innovation...?

- “The process of creating something new that has significant value to an individual, a group, an industry or a society”.
  James M. Higgins “Innovate or Evaporate”, 1995

- “The commercial or industrial application of something new---a new product, process or method of production, a new market or source of supply, a new form of commercial, business or financial organization”.
  Adapted from Joseph Schumpeter “Capitalism, Socialism and Democracy”, 1942

- “Innovation is when an invention has been brought to the market”
Fields of Innovation

- Can you think of different innovation fields?

  - **Product innovation**: iPhone, Tesla electric cars, bagless vacuum cleaners, ...
  
  - **Process innovation**: lean manufacturing, just-in-time inventory, agile software development, ...
  
  - **Business model innovation**: ikea, Netflix's subscription model, Amazon's marketplace platform, Uber's ride-sharing network.
  
  - **Marketing innovation**: Coca-Cola's "Share a Coke" campaign, L’Oréal’s “Makeup Genius” App., Nike's "Just Do It" slogan, ...
  
  - **Social innovation**: charitable foundations, microfinance, renewable energy, online education, mobile health clinics, public-private partnerships, ...
  
  - ....
Kind of innovations

• Can you think of different kinds of innovation?

• Incremental: Incremental innovation involves adding new features to a product, company, or production method within an existing market.
  => Google, evolution of smartphones (new functions, cameras, etc.), razors (more blades), ...

• Disruptive: Disruptive innovation involves creating entirely new products, services, or processes that disrupt or replace existing ones. It often involves new business models, technologies, or markets.
  => Cars, cell phones, personal computers, digital camera, Netflix, AirB&B, the ride-sharing platform Uber...

• Radical: Radical innovation involves the creation of technologies, services, and business models that open up entirely new markets.
  => airplanes, wheel, transistor, ...
High-tech vs low-tech

• Does innovation needs to be high-tech?
• Examples of low tech innovations?

  • Low-cost airlines
  • Suitcases with wheels
  • Starbucks
  • Time-sharing lease: RB&B
  • VOSS bottle: design and marketing
  • Monospace vehicles
  • Fast delivery systems
  • Uber
  • Dell direct sales of computers to customer without middle man.
  • Swatch: nothing but watches as fashion accessory.
  • Loyalty mileage program: empty seats do not cost much to the company against mileage points, and increase customer's fidelity.
Identifying opportunities and creating value

• Concept of “Pain/Needs/Desire” (Raphael Cohen)

  • “The greater the pain, the more the customer will be motivated to buy the painkiller”. R. Cohen

• Why is it key to identify opportunities to successfully innovate?

  • “We may define Opportunity as the existence of an innovative solution to a market need”. R. Cohen
Other interesting topics on innovation...

- The innovation process
  => idea generation, screening, prototyping, testing, and scaling

- The innovation culture
  => values, behaviors, and practices supporting and encouraging innovation within an organization

- The innovation leadership
  => ability to inspire, guide, and support innovation within an organization

- The innovation ecosystem
  => network of individuals, organizations, and institutions that support and drive innovation within a region, industry, or sector
Missions

- **Evalue le potentiel commercial des résultats** de la recherche.
- **Renseigne sur la propriété intellectuelle** et protège les découvertes.
- **Finance la transition d’un concept vers son implémentation par le fonds INNOGAP.**
- **Organise des séminaires de formation et des cours de sensibilisation.**
- **Prépare et négocie** des contrats de collaborations, de licence et de transfert.
- **Soutient la création de « spin-off »** issues de l’Université et organise des manifestations de sensibilisation à l’entrepreneuriat

Clients

[Logos des clients]
4 mai  Innovation basée sur la recherche
   Laurent Miéville (Unitec)
   Jean-Pierre Paccaud (Global Antibiotic R&D Partnership)

11 mai  De chercheur(e) à entrepreneur(e)
   Matthias Kuhn (Unitec)
   Ricardo Gago (Venturelab, Venturekick)
   Cyril Deléaval (Genilem)
   Lan Zuo (Science2Market)
   Nicolo Brembilla (HeKeTiSS)

25 mai  Protéger vos idées
   Olivier Deloche (Unitec)
   Raymond Reuteler (Reuteler & Cie)
   Isabelle Cornut (Reuteler & Cie)

1er juin  Collaborer avec des entreprises privées
   Olivier Deloche (Unitec)
   Vanessa Currat (Debiopharm International SA)

8 juin  Valoriser vos inventions
   Raluca Flükiger (Unitec)