

EXAMPLE X

NEW BENCHMARKS

The companies listed here typically employ a multidimensional approach to innovation.

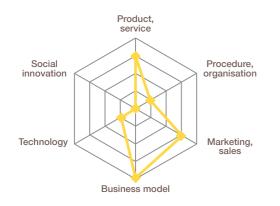
This table only highlights the type of innovation which is the focal point for each organisation.



Changing perceptions of innovation through a multidimensional approach

An example: BlaBlaCar www.blablacar.com

BlaBlaCar is Europe's leading long-distance ridesharing service. The company connects drivers with passengers willing to share the cost of the journey. Drivers publish an ad describing their journey, and indicate the number of available seats. Passengers obtain a dedicated list of drivers offering seats using an advanced search engine (departure, arrival, date, time, driver gender, smoking or non-, driver reputation, etc.)





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PREFACE

We must constantly rely on an active vanguard. There is never a consensus prior to innovation. Any transformative innovation is essentially a deviation.

> Edgar Morin, French sociologist and philosopher



Innovation is crucial. As France confronts the considerable challenge of consolidating its position as a key player in the global economy, and as our businesses are up against ever-increasing competition, our competitiveness and growth are the two defining factors of our development.

We need a major cultural shift that will enable innovation to play a decisive role in our country's economy.

We must learn to be daring, and to accept risk, experimentation and creativity. Innovation often takes shortcuts, never goes the way it is planned, and requires multiple trials and errors before reaching success. Making innovation everyone's business – from primary school to university, from factory floor to senior management, from civil service to private enterprise – is a structural challenge for France's economy.

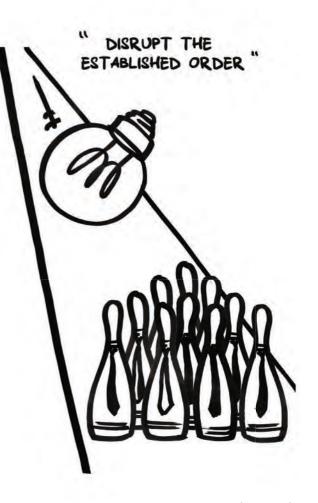
I want to emphasise the central role of business in this paradigm shift. How can we ensure that innovation is not only the responsibility of R&D and marketing, but of every employee? How can we configure organisations capable of generating novel strategic options over and over again? For more than a decade, my company has worked to deploy real managerial innovation. We have profoundly changed our organization; we try to ensure that all employees are innovative actors. Our company is as agile as possible, and part of an ecosystem that fosters tomorrow's innovations. We have entirely dismantled our internal hierarchy, and granted a considerable measure of autonomy to our employees, including at our factories. There is no organisational chart; the company is organised by product, expert community and project.

The primary role of our top executives is to focus on our 10-year business strategy, while giving more operational autonomy to employees. Employees actively participate in investment decisions, recruitment, salary policy and even long-term strategic reflection.

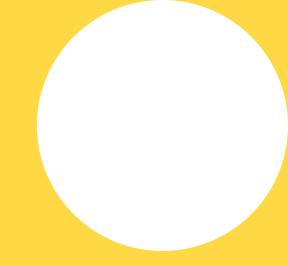
The results of this managerial innovation have been extremely fruitful. We have fared better than our competitors during crisis after crisis. We have achieved 2-digit growth rates in a mature market. Our market share has gone up 5 points in the past 3 years.

Our advice is simple: innovate! Make innovation the bedrock of your strategy, in service to your own company's growth, and to the competitiveness of our country.

Carlos Verkaeren, President of the Poult Group



NEXT GENERATION INNOVATION



Bpifrance finances and supports businesses, with a particular focus on innovative projects. To more fully appreciate the existing scope of innovative potential, **Bpifrance** has joined forces with the Next Generation Internet Foundation (Fing), and assembled a group of entrepreneurs and key innovation stakeholders. Clusters, entrepreneurial networks, administrative regions, researchers, investors, and a dozen startups...many have responded to our call.

Similar findings

In the massive upheaval currently underway in innovation, traditionally distinct classifications have become intertwined: technological/non-technological, product/service/process, incremental/radical innovation... Digital technology is not the sole vector for innovation and growth: BlaBlaCar and Autolib provide innovative mobility services, while Sushi Daily has created 1500 jobs in four years by locating sushi kiosks inside existing supermarkets.

At the same time, the needs of innovators have become increasingly diverse. Some companies need to invest heavily during the start-up phase, while others continually adjust their needs to support various stages of development. Some need financing for pre-planned R&D tasks, while others need it to build an initial user base that will support agile – flexible, responsive – product development.

Changing the rules together

It is time for us to ensure that a greater number of potentially transformative opportunities are not wasted, by finding novel ways for French and European innovation support schemes to foster innovations of all kinds. **Bpifrance** dedicates itself to this goal, starting with the development of appropriate financial tools.

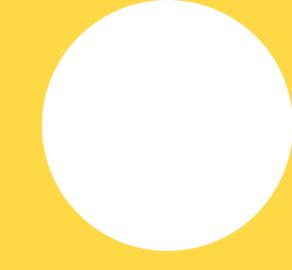
The book «Next Generation Innovation» positions **Bpifrance** squarely at the heart of a pivotal drive to transform innovation, innovation policies and support mechanisms. By transforming its own tools and criteria, **Bpifrance** wishes to be a catalyst for the emergence of new leaders – and thus actively contribute to the economic future of our nation.

The fruit of the collaboration between Bpifrance, Fing and the French innovation ecosystem is now in your hands. This book gives readers the big picture of next generation innovation, and the needs of the new generation of innovators. As a benchmark reference guide intended to help readers identify and analyse an innovative project (of any kind), the present work chooses not to classify projects using rigid categories, but rather organises project analysis around two common questions: What is new about the project? and how does it set the company apart from the competition?

We would like to thank those who have contributed to the first edition of this work. **This collective reference manual now belongs to every innovation actor in Europe**; we hope that each of you will want to share and improve upon it, so that the range of possibilities it explores becomes even wider, and a common vision of innovation – next generation innovation – emerges!

> Paul-François Fournier, Bpifrance and Daniel Kaplan, FING

CHANGING THE WAY WE THINK ABOUT INNOVATION



Innovation: an asset for France, and for Europe

Innovation is crucial to the competitiveness of any business facing economic globalisation.

Businesses that innovate export more than those who do not. They export to more countries. Their exports grow faster, and they are less susceptible to changing economic conditions.

Innovation is an essential source of job creation, enabling organisations beyond France's borders to engage with our pool of creative talent.

⁽¹⁾ Source: Innovation, a major challenge for France (L'innovation, un enjeu majeur pour la France), Jean-Luc Beylat and Bernard Tambourin, 2013, p. 33.

Investing in innovation is not enough

In the competitiveness race, **France in Europe has a lot going for itself**: a younger, better-educated population than the European average, high-calibre scientific research programs, economic and technology sectors with worldwide reach, solid civil infrastructure and public services...the list goes on. In addition in Europe, substantial public resources are devoted to research and innovation. Europe can become an attractive investment destination: the United Kingdom and France play a central role in terms of venture capital investment.

To take advantage of our strengths, and build a better future, quantitative measures of investment is no longer enough: we have to change the way we think about innovation, and the methods we use to support it.



1.2 Innovation is everywhere

From a corporate and managerial perspective, (....) innovation is the culmination of a comprehensive process. R&D has to be integrated into a complex organisational approach alongside other concerns and processes.

Many of the innovations that have transformed markets over the past few years are not technological, in their essence, but rather use technology as a means to other ends. For example:

 social media networks and Twitter messages – now an integral part of daily life for hundreds of thousands of people – have created new forms of communication without using particularly advanced technologies, or producing significant technological innovation (at the end of 2013, Twitter held only 2 patents);

 Source: A new vision for innovation (Pour une nouvelle vision de l'innovation) Pascal Morand and Delphine Manceau (2009, p. 13).

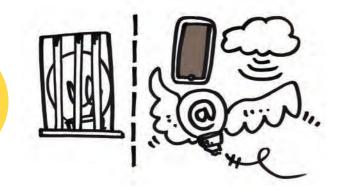
- Zara has enjoyed stronger growth than any other fashion brand worldwide by renewing its inventory on a bi-weekly basis: no inventory replenishment, no country-specific product lineups;
- arpooling and car sharing are giving the public transport sector a run for its money, based on nothing more than online community platforms tied to «reputation» systems (user reviews, money transfers); and
- microcredit loans have given millions around the world the chance to grow their businesses through a novel approach to credit distribution and repayment.

Not a single one of these innovations relies on the creation or improvement of advanced technologies to create value, or to distinguish itself from its competitors.

Yet these examples – and many others – do have one thing in common: national and European innovation systems would not have been able to support them, at least not their core activity!

Such «agile» and «open» forms of innovation, affecting business models or company organisation, are increasing in importance. They even dominate certain sectors. This is the result of three very recent transformations:

- Digitisation: ideas and concepts first exist in digital form, making them flexible and customisable, which facilitates not only dematerialisation, but also the association of products with services, and contributes to cycle acceleration. Data has also become a key economic asset.
- Interconnectivity: new ideas race across the globe, inspiring creative collaboration and reproduction. The line dividing amateurs from professionals is fading. Value chains are being constantly restructured, often around massive «platforms».
- The increased importance of «externalities»: mounting energy and climate concerns, newly recognised limitations to «traditional» forms of public intervention and a strong emphasis on corporate social and environmental responsibility... These concerns demonstrate that the impact of innovation on employment, the environment and collective well-being must somehow be taken into account, and even considered as core concepts that underpin «social innovation».





1.3 The changing face of innovation

Up to now, our innovation systems analysis and dedicated support schemes have been *intended* essentially for technological innovations: until 2005, the OECD's Oslo Manual⁽¹⁾, which provides the foundations for most European innovation support programmes, was focused entirely on «technological product and process (TPP) innovation» (p. 7), defined as «implemented technologically new products and processes, and significant technological improvements in products and processes.» (p. 31)



 Source: Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data: Third Edition (OECD, 2005).

Changing your methods is innovating!

In its most recent edition (2005), the Oslo Manual⁽¹⁾ noticeably expands its definition of innovation:

An innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations.

The OECD actually recognises two forms of «non-technological» innovation:

- organisational innovation, or «the implementation of a new organisational method in the firm's business practices, workplace organisation or external relations»; It focuses on the company – how it develops, produces and manages its products and services – both as an organisation, and in its relations with suppliers and partners; and
- marketing innovation, or «the implementation of a new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing».

INNOVATING Also means Changing Your organisation

(1) Source: Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data: Third Edition (OECD, 2005).

Case study The Poult Group

Using managerial innovation to stand out in a crowded market The radical reorganization of the Poult Group (biscuit-maker for other brands, founded in 1883) began in 2006. The objective of this historic group was to engage, motivate, and empower every one of its employees toward the firm's innovation.

Two levels of management were removed, rotating leadership was introduced in several departments, and an internal project incubator was created to promote «intrapreneurship»; the creation of Poult Academy, a corporate university, was this incubator's first success.

Thanks to managerial innovation, the company now offers much higher value-added services to its clients:

- product codesign with customers for whom Poult was formerly a supplier (Auchan, Michel & Augustin...)
- open innovation between leading high-tech companies (e.g., nutraceuticals, with Pierre Fabre Laboratories) and Poult internal start-ups to develop new products, including the «smart biscuit» - a personalised nutrition supplement for patients in long-term care, which tracks data intended for healthcare professionals (compliance, absorption periods and frequency, etc.) via individually printed QR codes.

In a challenging market, Poult nearly quadrupled in size between 2005 and 2012, and recaptured its former ranking as France's second-largest biscuit-maker. Their gains attracted a buyout by Qualium investment (A French Caisse des Dépôts subsidiary) in 2014.

MARKETING INNOVATION

Case study Sushi Daily

Added value, from within

Sushi Daily launched its retail store and high-traffic area sushi bars in 2010. Its sushi is freshly prepared in front of customers, who pay for it along with their other purchases, enabling the hypermarket retail chain to systematically deduct a commission. Each in-store POS is independent, with the parent company as a shareholder. By 2014, there were over 250 Sushi Daily points of sale in 6 countries, and 1500 Sushi Daily employees.



Daring to try a new business model is innovating!

A business model describes how your business makes money.

Steve Blank, serial-entrepreneur and Silicon Valley opinion leader

We are entering an era of intensive innovation (...). An era in which innovative competitors will come out of the woodwork. Intensive innovation distorts the «standard» laws of economics. It enables thinking that extends beyond market norms, and the surprise of unexpected value propositions.

Armand Hatchuel,

Professor, Mines ParisTech, in Les Echos (newspaper)

According to *The Economist*⁽¹⁾ a majority (54%) of senior managers «favor[] new business models over new products and services as a source of future competitive advantage».

According to the Boston Consulting Group (2009), business model innovators garner results far «superior» to product and process innovators⁽²⁾.

So there seems to be a new, potentially dominant form of innovation out there: business model innovation. What does it entail? Despite the absence of any official definition, analyses converge: the business model describes how a company will earn money over time. More to the point, it reveals a company's developmental logic, and its strategies for value creation, capture and sharing.

- Value creation: the value propositions made to customers and users, and the way the company harnesses its expertise, and the expertise of others, to deliver this value.
- Value capture: revenue sources and structure.
- Shared value: company cost structure, «scalability» its ability to grow profitably – and how value is to be distributed across a complex «value system» including shareholders, employees, suppliers and numerous other partners (e.g., distributors, providers, and application developers for platforms who create value from users, etc.).



⁽¹⁾ Source: Business 2010: Embracing the Challenge of Change (Economist Intelligence Unit, 2005) – as cited by Raphael Amit and Christoph Zott, Creating Value Through Business Model Innovation (MIT Sloan Management Review, 2012).

⁽²⁾ Source: Business Model Innovation (Zhenya Lindgardt, Martin Reeves, George Stalk and Michael S. Deimler, BCG, 2009).

- Why is business model innovation becoming so crucial?
 - A business model produces interdependencies that raise the barriers to entry for competitors, and the barriers to exit for clients: a social network is free for users, but appropriates their data; Xerox leases copiers, and sells services and consumables; Microsoft promotes Windows via programs that require its operating system, and vice versa...
 - Business model innovation identifies new value sources within existing activities: Amazon.com sells cloud computing services; Apple depends on millions of developers for services it could never hope to produce by itself.
 - The most «disruptive» innovations to borrow Clayton Christensen's term - are the ones that transform a market. These innovations are often developed by new entrants, typically have a unique business model, and usually focus on the bottom end of the market, first offering products of poorer quality than their established competitors: digital vs. chemically processed photography, MP3s vs. CDs, low-cost vs. high-tech... The real difference between these upstarts and entrenched market leaders can be found in their business models: novel cost structure and customer relations, a value network that fosters market expansion. etc. It is precisely because their (outdated) business model forms the backbone of their activity that old-school market operators have great difficulty responding to challengers (e.g., Kodak).

New social solutionsare also innovations!

Why has social innovation moved centre stage in the last decade? The main reason is that existing structures and policies have found it impossible to crack some of the most pressing issues of our times – such as climate change, the worldwide epidemic of chronic disease, and widening inequality.

Robin Murray, Julie Caulier-Grice and Geoff Mulgan, The Open Book of Social Innovation, Nesta/Young Foundation (2010, p.3)

The impressive growth of microfinance highlights the evolution of a long-standing practice of social innovation. In line with the above authors, the European Commission equally defines social innovations as «new ideas (products, services and models) that simultaneously meet social needs (more effectively than alternatives) and create new social relationships or collaborations», adding that «these solutions are both social in their ends and their means»⁽¹⁾. According to this definition, *how* an innovative firm produces and distributes value is just as important as the innovations it introduces. On this basis, the EU now plans to support social innovation the same way that it supports commercial innovation.

⁽¹⁾ Source: 1. Guide to Social Innovation (European Commission, 2013, p. 6).

Case study The Food Assembly

« Let's get together to buy the best food available, directly from local farmers and foodmakers. »

The Food Assembly connects consumers with local producers of quality food products. The basic idea is to provide the tools that enable short distribution channels to scale up, and move to the next level.

The system is based on the creation of pop-up markets, or Food Assemblies, hosted by an individual, a group of people, or an enterprise. These assemblies are facilitated by an online platform that connects local producers with platform subscribers wishing to buy their products.



The reason the EU, like France, supports social innovation⁽¹⁾ is because it expects social innovation to provide new answers to difficult problems that neither markets, nor public policy, have been able to address in a satisfactory manner..

Ashoka, an international network uniting more than 3,000 social entrepreneurs, describes its members as «changemakers». It has assigned social entrepreneurship with a sizeable task:

Inspire, encourage, and facilitate new business co-creation that addresses societal issues at large scale, by 'tearing down the walls' between sectors and equipping the younger generation with the skills needed to change the world.^[2]



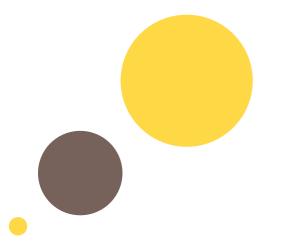
see the *Guide to Social Innovation* (European Commission, 2013)
 Ashoka's *Changemakers* (Transmediamix, n.d.,)

So what does innovating look like, exactly?

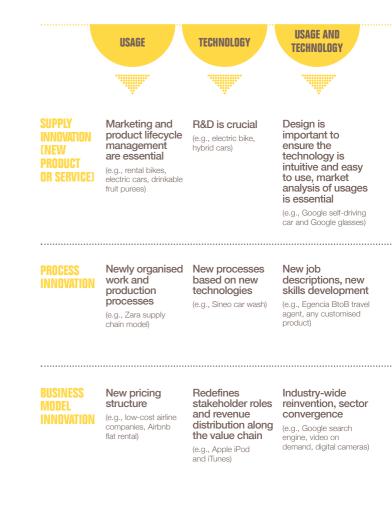
Practical innovations are typically multi-dimensional:

the iPhone is a new product that continues to generate new usages via the innovative iTunes Store business model; BlaBlaCar enhances the experience of ridesharing while inventing its business model; the Food Assembly organizes large-scale direct purchase from producers, which supports local farmers (social innovation) and encourages the growth of its pop-up network/source of income (business model)...

Categorising these dimensions of innovation – use, process, organization, business, agile, open, social – should not lead to isolated objectives; the categories should be accepted as a «suite» of modalities that each contribute to the coherence of any entrepreneurial project.



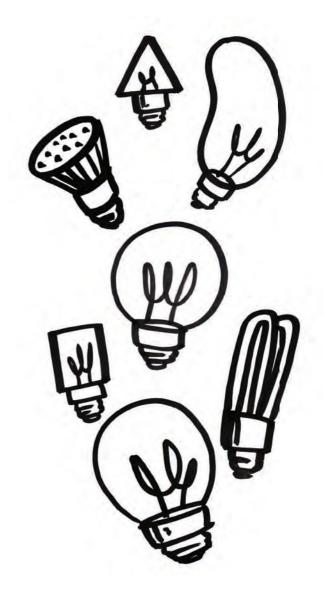
INNOVATION CATEGORIES, AS SUGGESTED IN A NEW VISION OF INNOVATION (POUR UNE NOUVELLE VISION DE L'INNOVATION) BY PASCAL MORAND AND DELPHINE MANCEAU



The challenge: to recognise and support innovations of all kinds

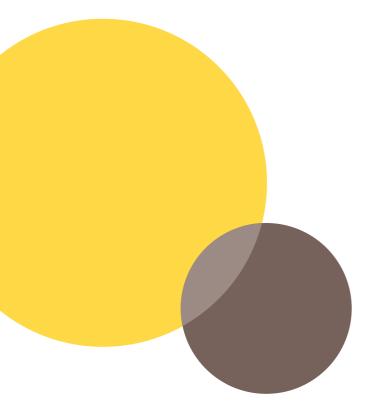
Following the OECD's publication of the 2005 Oslo Manual, «non-technological» innovation has been slowly gaining legitimacy within innovation support schemes. For example:

- the «Horizon 2020» EU Common Strategic Framework for Research and Innovation conjoins funding for research with funding for innovation, with the aim of developing «a coherent set of instruments, along the whole 'innovation chain' starting from basic research, culminating in bringing innovative products and services to market, and also supporting non-technological innovation, for example in design and marketing»⁽¹⁾;
- in France, the Morand-Manceau (2009) and Beylat-Tamborin (2013) reports agree that «innovation is not merely invention, and innovation is not only technological»⁽²⁾;
- and the second round «Investments for the Future» call for proposals (01/2015), Bpifrance's recentlydeveloped French Tech funding program, as well as other regional innovation support schemes (e.g., PACAlabs, Pays de la Loire Territorial Innovation fund) explicitly include provisions for «non-technological» innovations.



(2) Source: Innovation, a major challenge for France (L'innovation, un enjeu majeur pour la France) (Jean-Luc Beylat and Bernard Tambourin, 2013, p. 33).

⁽¹⁾ Source : press release for the Green Paper debating the EU Framework funding for research and innovation: Horizon 2020 (2011).



Yet, despite the clarion call for a new vision from experts and stakeholders, interpretations of EU regulations governing innovation, and the mindset underlying public support schemes, remain narrowly focused on technological innovation. Marketing and organisational innovations are accepted as a bonus, but rarely as innovations in their own right.

Innovation has changed. Public innovation schemes, and those who operate them, need to think big, and appreciate innovation in all its diversity and complexity.



Next generation innovation: open, agile, user-centric

Contemporary innovations also distinguish themselves in how they develop. Many kinds of innovations break away from the traditional «funnel» process that moves a company's products from research to concept to production.

To innovate, be open

Henry Chesbrough and Open Innovation.

Chesbrough's theory of Open Innovation suggests that a firm should look in places other than R&D for the ideas and knowledge it needs to innovate (upstream), and should also make it easy for others to create economic value based on their innovations (downstream). By punching holes in the traditional funnel process – which allows only a fraction of R&D concepts to make it through production – he opens the floodgates to innovation.



Apple iTunes, Google Android, Microsoft Windows and game console developers each owe their success to the applications built for their platforms, and hence do everything in their power to support developers, and facilitate the development process.

Beyond these «seminal» examples, the core concept underlying open innovation, namely that

companies can and should utilise external ideas and paths to market, as much as internal ones

has also found a myriad of different applications: the open APIs (application programming interfaces) of Amazon.com, BlaBlaCar or Crédit Agricole (CAStore); crowdsourcing platforms (e.g., eYeka, ideXlab, KissKissBankBank, Ulule); or even 'free and open-source', a label no longer restricted to software (e.g., Arduino microcontroller boards, the Tabby open hardware automobile). By following this approach, competitive advantage is not so much derived from intellectual property as it is from market traction.



Case study

An open source software platform to create tomorrow's virtual office!

The LINAGORA OpenPaaS platform, a virtual office environment, aims to provide an industry-level solution to the collaborative usage demands emerging among public institutions and in big business.

Linagora worked to modernize the messaging system at the Ministry of the Interior, and on the deployment of a new software environment for France's National Assembly.

Beyond computer technology, OpenPaaS has fostered a number of usage and organisational innovations.

This free and open-source, open-API software platform has also given rise to a growing community of innovators and developers seeking to create dedicated new services.

Associating the virtue of an open innovation system with viral propagation lays the foundation for a new generation of ecosystem – one that provides individuals and companies with a platform to develop the collaborative tools of the future, faster and more cheaply.

To innovate, get agile!

By extending to the entire innovation process to include the use of «agile» (or lean) IT development methodologies, innovators can reduce their development cycles, and thus minimize their risks and reduce initial capital expenditures. No more rigid business plans, no more striving for perfectionism.

Agile development emphasises the continued deployment of successive versions of a product or service, alongside measurement and ongoing assessment of market returns. This can even lead the company to «pivot», or test new, fundamental assumptions about the product, the market and/or company strategy and growth drivers.

For example: in 2005, Criteo was a film discovery service; in 2006 it evolved into an e-commerce product recommendation service; and in 2008, it became a pay-per-click advertising agency.

This kind of approach is radically incompatible with the sets of pre-defined specifications or multi-year development plans that are still the status quo.

A startup is an organization formed to search for a repeatable and scalable business model.

Steve Blank, Serial entrepreneur and Silicon Valley opinion leader



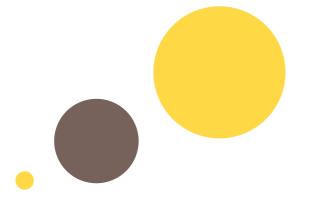


⁽¹⁾ Source: web page, What's A Startup? First Principles (2010).

To innovate, think «with» and «for» users

Research by MIT's Eric von Hippel ⁽¹⁾ has shown that in many markets (e.g., sports equipment, medical devices), the most significant innovations are often initiated by advanced or «lead» users, before being adopted and industrialized by startups or established firms.

Even if this kind of bottom up innovating is nothing new, it is now an increasingly dominant component of product development, simply because digital technology, the Internet and Fab Labs have blurred the lines that once separated amateurs from professionals. Von Hippel invites companies to collaborate with lead users to develop methods for product co-creation. The typical «top-down» innovation process – from R&D to market – is simply reversed.



The paradigm shift we have described here – consumer prototyping and use, followed byfiltering for generality of demand by peers, followed by commercialization of generally desired innovations is growing stronger over time. The costs of consumer innovation are dropping due to better and cheaper design tools, better and cheaper Internet-hased communication and group formation, and better and cheaper prototyping facilities.

> Eric von Hippel, Jeroen P.J. De Jong and Susumu Ogawa, The Age of the Consumer-Innovator, MIT Sloan Management Review (2011, p. 34)

 See Eric von Hippel: le paradigme de l'innovation par l'utilisateur by Hubert Guillaud, Internet Actu (2012).

1.5 Today's innovators: projects and needs

Traditionally, the innovation ecosystem – which includes public financing structures – is very familiar with the needs of technological innovators, and has the tools in place to meet those needs. However, non-technological innovations have very different characteristics, and do not generate the same needs at the same junctures as technological innovations.

" MEETING THE NEEDS OF A NEW BREED "



New kinds of innovative products

Innovation projects that usually do not rely heavily on advanced technology (but not always!) present three characteristics that distinguish them from projects based on technological innovations.

Competitive differentiation based on usage, rather than performance, or pushing the definition of 'state of the art. A «non-technological» innovation doesn't necessarily seek to outperform what is already on the market: it might aim for the bottom of the pyramid (low cost), or appeal to a «niche», or just be quirky or offbeat (like the marketing and packaging for «kooky cookies» Michel et Augustin)

Another consequence: competitive advantage can rarely be protected with a patent.

- Impact on key success factors:
 - Base the project on an understanding of user needs and expectations, rather than on technology.
 - Collaborate with lead users, if possible as early as the design phase.
 - Integrate design expertise right from the start.
 - Launch early, and get a feedback loop going as soon as possible.
 - Always try to stay one step ahead of the competition.

• Less capitalistic projects, at least initially. Projects with low technological intensity do not usually call for heavy investment in hardware, software and R&D. However, similar to technology-based projects, financing needs persist until budgets are balanced.

The most basic need expressed by «non-technological» innovators focuses on human resources recruitment and funding, whether for employees, or external collaborators like designers, developers, managers, lawyers, recruiters...

At the beginning, many entrepreneurs augment their income by providing bespoke services (consulting, etc.). This has the disadvantage of diverting their attention away from the project at hand, which slows its progression, while it is likely that other, similar projects are emerging somewhere else in the world.

Impact on key success factors:

- Locate (and be able to pay) the right people at the right time.
- Locate operational resources often difficult to ascertain during the startup phase as and when necessary.

....

· «Agile» projects, supershort time to market

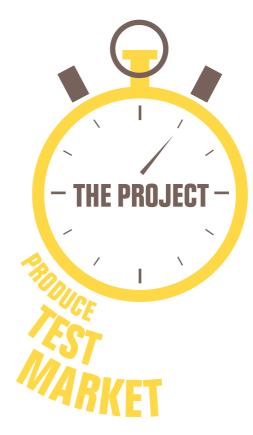
In most cases, these projects do not go through protracted study and planning phases, but rather through short iterative cycles that work as closely with users as possible: prototypes are produced rapidly and immediately tested; «traction» (engagement with an expanding, viral community of users) is created as soon as possible; quick, modest, and continuous improvements are preferred over heavier, less frequent «versions»... The project is constantly in several stages at once: design, development, test, launch, operation and analysis.

Impact on key success factors:

• Break down the project into smaller modules with short completion times: a few weeks at most.

.

- Prioritise speed of execution; do not hesitate to buy solutions that work, rather than develop them.
- Experiment quickly and continually, for example by simultaneously testing multiple versions of the same product («A/B testing»).
- Be able to «pivot» quickly, in response to user feedback.



... The new needs of today's innovators

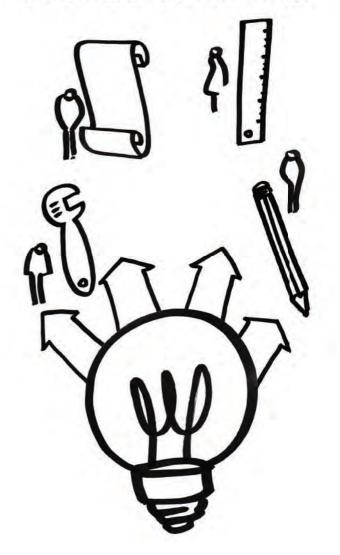
Entrepreneurs seeking to accomplish more iterative, less predictable projects – more closely aligned with the market – express different needs to those whose innovations are mostly technological.

• First things first: people!

Companies need staff, and talent. This is the top funding priority for most non-technological (and many technological) innovators:

- recruit (or subcontract) managers, marketers, engineers, technicians, web/mobile developers... The scarcity of these skills – especially in the fields of web and mobile development – means these hires come at a premium, and with a certain degree of risk;
- **finance** the outsourcing of «specialist» skills in design, communication, web marketing, law, finance...and recruitment, typically as subcontractors.







• Next comes financing the proof of concept, and each phase of business development.

Entrepreneurs' second priority after recruitment is to fund each stage in the iterative process. Here, marketing is inseparable from the design and development of the project:

- prototyping and early user testing: although these costs may be minimal, they are beyond the reach of some entrepreneurs;
- developing the first release and attracting first-time users/customers, which requires spending on marketing, communications and sales; and
- business development, locally or internationally.
- Finance iterative and flexible projects... iteratively and flexibly

Entrepreneurs want to focus on their projects, not push paper. Flexibility should be the order of the day when funding «agile» projects; as financing needs are difficult to measure during the startup phase, and emerge progressively, funding will have to be arranged as milestones are achieved.

Case study

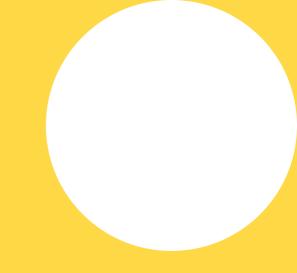
3 phases, **3** financing needs

Launched in 2009, Leetchi is Europe's leading online group payment service, where users collect money (in «money pots») for group gifts and events. Since 2013, it's growth has also relied on the development of MangoPay, a third-party payment system for online crowdfunding and collaborative consumption marketplaces.

- During its (6-month) pre-launch phase, Leetchi primarily needed financing to pay a developer to build the first release.
 Recruiting an additional developer would have enabled Leetchi to accelerate its time to market, and more effectively respond to early feedback from users.
- During the (12-month) launch phase, financing needs were still focused on salaries (2 developers), plus media relations and marketing in France. Again, understaffing curbed Leetchi's development potential. Bpifrance financed Leetchi's online payment system development.
- During the accelerated development and automation phase of the MangoPay payment system, financing needs were focused on marketing expenses and customer support for both B2C (Leetchi) and B2B (Mangopay) activities.

By early 2014, Leetchi had gained more than 1.5 million users, and was anticipating 100 M \in in turnover for its services. The business now operates at a profit.



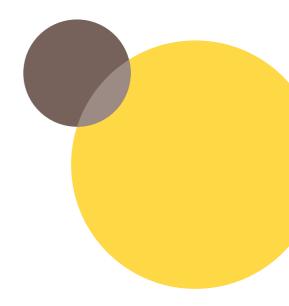


2.1 Meeting the needs of today's innovators: a new perspective

Innovation is in flux, and so are the needs of today's innovators. How does this change the way we support them? Easy: it means we have to adjust our focus, and adapt our approach.

- Our focus needs readjustment so that we can learn to identify and analyse projects that are totally different from those that public and private funders – at least in Europe – are accustomed to.
- We need to broaden our approach to include support for projects whose development cycles, financing needs, risk profiles and/or valuation methods differ enormously from technology-oriented projects.

Recalibrating what we consider to be innovation will enable support system to back projects that would simply never have been eligible before: sales and marketing innovation, service innovation, business model innovation and social innovation.



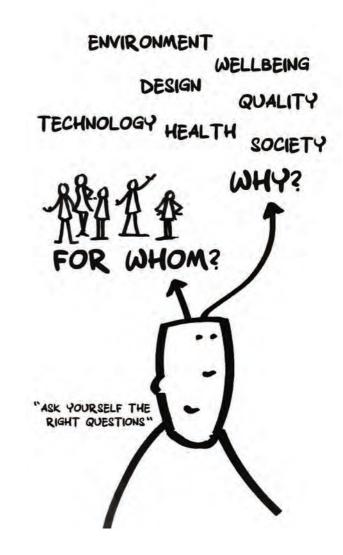
What do we need to know?

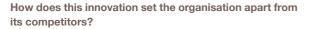
We believe that every innovative project should be approached with the same two questions in mind:

What is new about the project, and what it affords to its customers, users and beneficiaries?

- Have potential customers, users and/or beneficiaries been clearly identified?
- Is its main innovative focus on end users (B2C), other businesses (B2B), or company employees (process or organizational innovation)?
- How does the project change users' point of view: does it meet a new need, or solve a new problem? Does it significantly improve the way a particular need is met, or respond to a known issue? Does it offer a new experience, a new usage? Does it create a new category of need, usage or market?

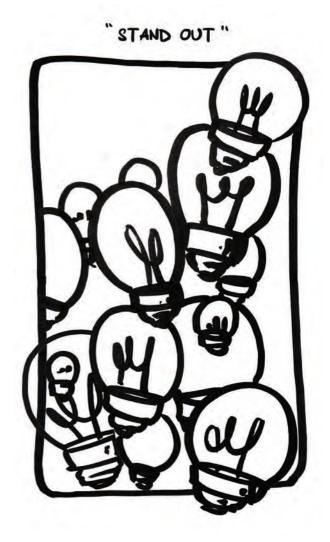






- Who are the project's (current and potential) competitors? What are their strengths and weaknesses?
- Is the proposed innovation likely to make a difference on the market:
 - by providing the company with a significant competitive advantage? If so, through what factors (functionality, price, quality, image, increased ease of use, etc.)?
 - by creating uncontested market space?

These questions are essential. If the entrepreneur finds it difficult to respond, this may indicate the existence of a problem: has the project been fully formulated? Is it more of an invention (the design of a new technology or a new process without entrepreneurial vision) than an innovation (new products introduced to the market, or a new process put into practice, with industrial and/or commercial potential)?



Getting clear about innovation type and intensity

The present benchmark, derived from our research and presented in the following pages, aims to provide support for the detection and analysis of innovations within the context of the two questions previously raised. Project analysis aims to specify the innovative nature of a project in terms of its type and intensity.

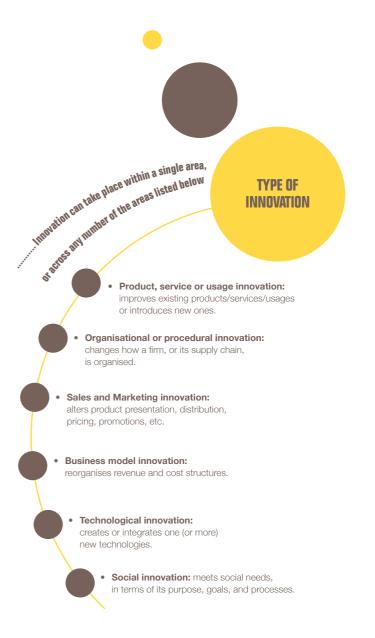
> Radical innovation (or «disruption»): creates an entirely new, uncontested market, or revolutionises a market (or markets) completely. There is a «before» and an «after»; not only for the company, but also for its competitors. Example: the Apple iPhone and App Store.

• Incremental innovation: improves what already exists, contributes to the competitiveness or profitability of a firm without any significant internal transformation. Example: the bagless vacuum cleaner.

INNOVATION INTENSITY

L'intensité de l'innovation pourra ainsi être évaluée en la mesurant sous l'angle des différentes typologies décrites.

is measured on a scale between 0.4.



Example analysis of innovative type and intensity: *Compte Nickel* (the Nickel Account)



With a minimal deposit, and zero conditions, a *Compte Nickel* provides users with a payment account, electronic banking details and a debit card. It takes only five minutes to open an account, using a single piece of ID. It allows withdrawals, deposits, wire transfers and direct debits, but does not provide customers with overdraft privileges nor checkbooks. Its

extremely inexpensive operations rely entirely on the web, mobile technology, and the capacity to verify an account balance in real-time.

This bank-less account (approved, however, by the Bank of France) is primarily intended for banks' unwanted customers, or those who have been banned. Easy to open and close, a *Compte Nickel* can also meet specific needs: payment of shared expenses, online payments, international transactions, an account for one-time purchases, etc.

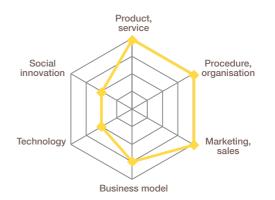
Where is the innovation?.....

• Product/Service/Usage:

A bankless payment account, opened in five minutes at participating tobacconists, no conditions, no additional services.

• Process/Organisation:

Opened from a tobacconist using an identity card (scanned by a «Nickel terminal»). Immediate issuance of bank card and details. Funds deposit online or via tobacconist. All other account management takes place entirely online.



Innovation Intensity is measured on a scale between 0 and 4.

• Marketing and Sales:

Account opening and funds deposit at partner tobacconists. A non-stigmatizing marketing message to attract a socially excluded market segment: an «account for everyone», minus income or asset conditions.

• Social:

The founders wished to address the social injustice of banking exclusion (one founder was himself excluded by a bank). A *Compte Nickel* has no income test. Opening an account does not require customers to divulge sensitive information pertaining to banking history or prior spending habits.

• Business Model:

Very low, standardised rates (subscription, billing, deposit and withdrawal); no additional products: no overdrafts, no credit nor use of customers' cash. Fees listed at < €50/year, depending on use. Another portion of revenue is derived from credit card payment commissions.

• Technological:

Two patents: the Nickel Terminal, which allows identity document authentication using a basic scanner, and banking detail form generation via the tobacconist's point of sale (POS) printer.

2.2 The Six Types of Innovation

1. Product, service, usage innovation

Does the project introduce a new product or service, or a significant improvement in the nature of an existing product or service, its functionality, or the way it is used?

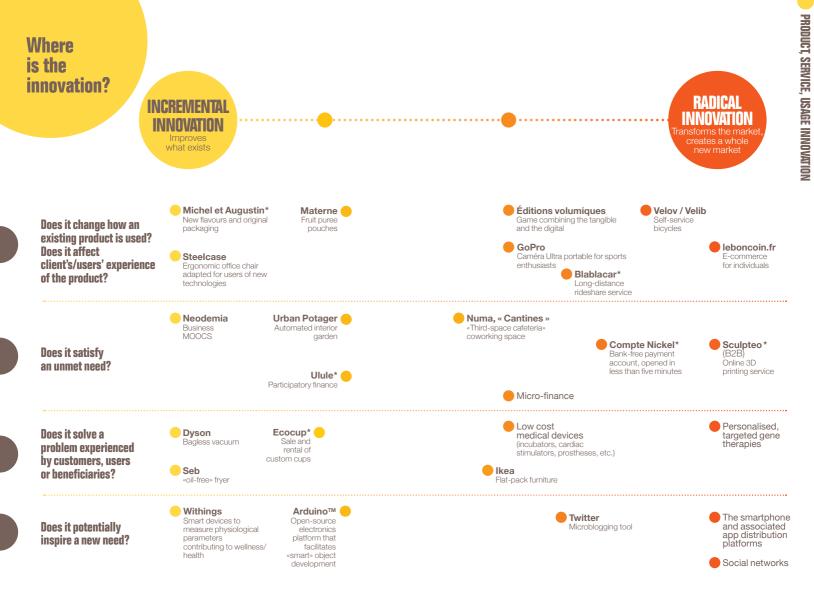
What do we mean?

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This type of innovation primarily impacts clients' and users' relationships with the product or service:

- a new product or service satisfies a need, solves a problem or creates a new market;
- a product or service revision entails improvements to features, performance, ease of use, quality, appearance, etc.;
- a new usage for an existing product, service or technology enables clients/users to perform new functions that meet different needs, or provides clients/users with a different «experience».





* Fiche descriptive consultable sur le site internet.

2. Process and organisational innovation

Does the innovation introduce a new design or production process, or unprecedented changes to the organization and management of the company, or in its process, logistics or supplier relations management?

What do we mean?

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This type of innovation directly concerns the company and how it develops, produces and manages its products and services, both as an organization and in its relations with suppliers and partners:

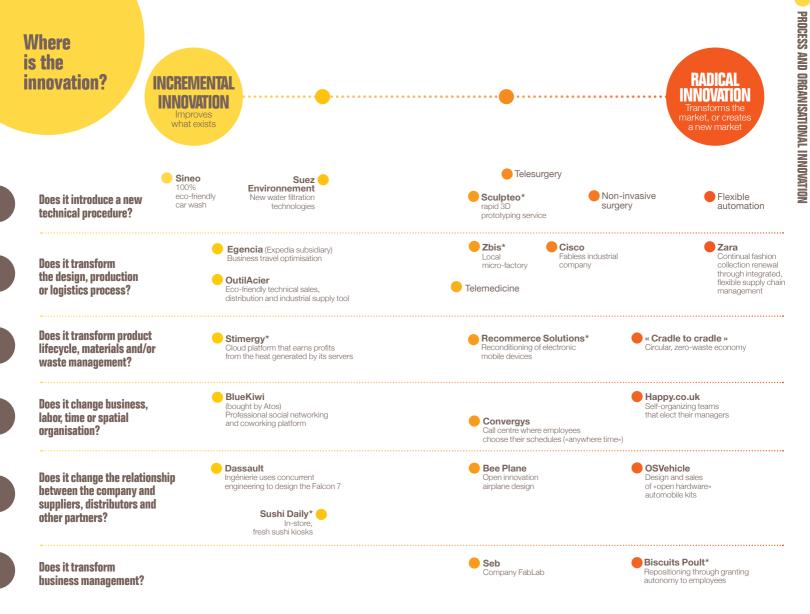
 procedural or «process» innovation focuses on implementing technical tools (new machines, new technologies, new IT) to improve productivity (reduce costs and delays) and quality, make the company more responsive and production more customisable, reduce raw material consumption and waste, etc.;



- organisational innovation focuses on management systems (eg, JIT, 24/7, knowledge management, quality assurance, etc.), work organisation (work methods, organisational charts, collaborative work, outsourcing, etc.) and a company's external relations (relations with suppliers, logisticians, distributors, and other partners). Often, it complements process innovation (e.g., a new technique entails a reorganization) but may also occur alone;
- managerial innovation is a form of organisational innovation that focuses on how to distribute information, power and control within a firm.



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3. Sales and marketing innovation

Does the innovation change the way the product or service is presented, marketed, promoted or priced, or the customer relations dedicated to the product or service?

What do we mean?

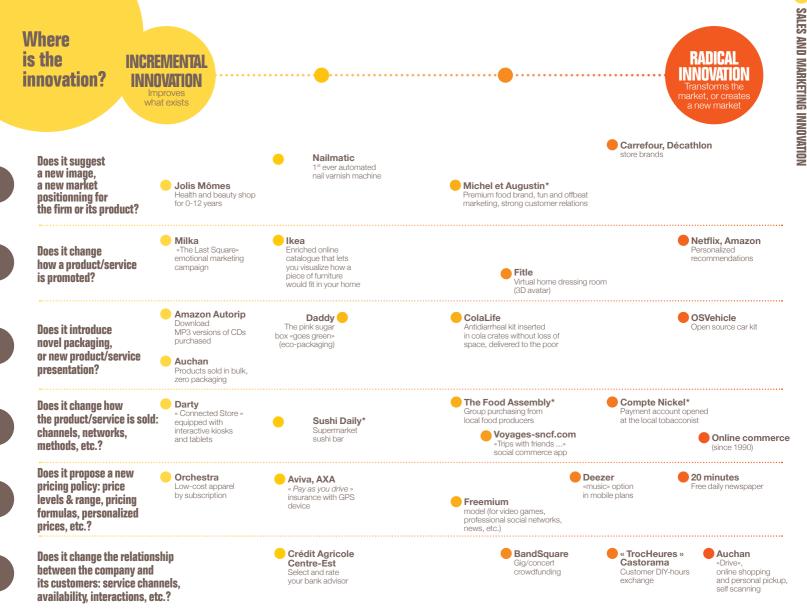
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This type of innovation concerns how the product or service is aimed at the market, and at its clients, customers or users:

- **branding,** positioning, marketing and promotion;
- packaging and presentation;
- sales and distribution methods, channels and forms

.

- pricing levels, models, degree of customisation;
- customer relations content, channels and quality.



4. BUSINESS MODEL INNOVATION

Is the innovation based on a new cost or revenue structure, a new way of making money?

What do we mean?

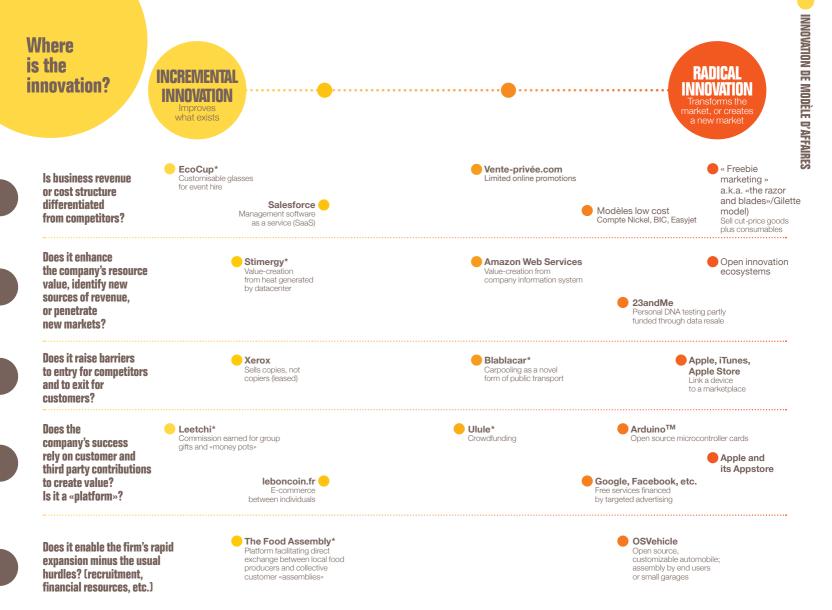
The business model describes how the company makes its money and aims to increase profitable growth. It describes the value delivered to customers, the revenue and cost structures, and how the firm will manage future growth. It also describes how the company works with its «ecosystem» – suppliers, partners, customers and other stakeholders.

Business model innovation takes many forms, which can be broadly classified as follows:

- **competition differentiation** using novel cost structures and revenue streams (eg. low-cost);
- **new value creation** from of company resources (e.g., reselling heat generated by a data center);
- **new relationship definition** between clients, suppliers, distributors, advisors and other partners to create value.

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5. Technological Innovation

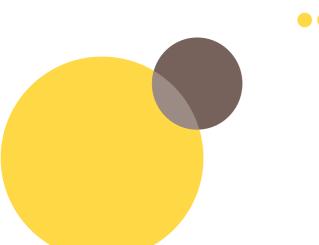
Does the project rely on new technology development and/ or integration, or the significant advancement of existing technologies?

What do we mean?

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Technological innovation creates or uses one or more new technology(gies) which, (when compared to existing technologies), affords users with:

- **superior performance** (function, capabilities, power, speed, ease of use, etc.);
- a better price-performance ratio (investment, use, energy consumption, etc.);
- or entirely new usages.



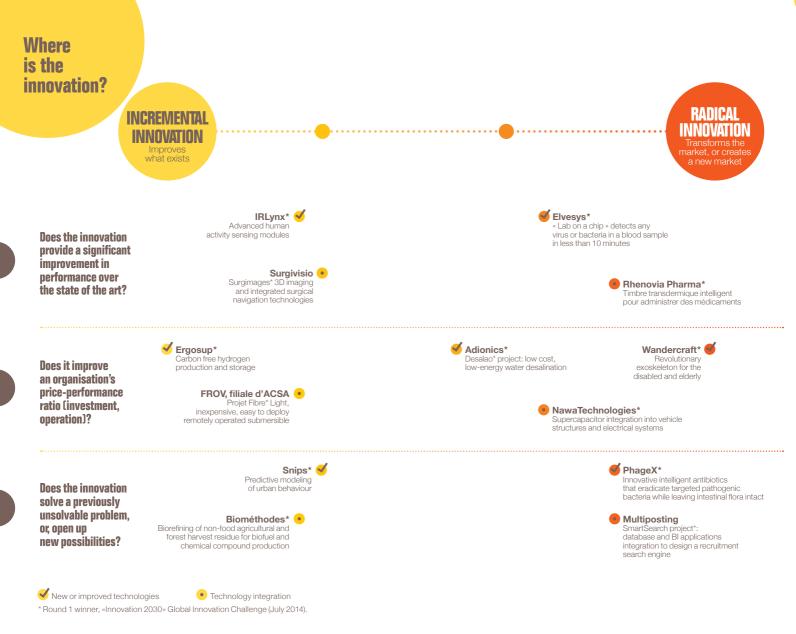


Technological innovation may take the form of:

- new technology development;
- existing technology enhancement;
- an original combination of largely advanced technologies (e.g., bioinformatics).

Technological innovations often emerge as a result of public and/or private R&D. However, most of these tech-driven innovations also require usage development, so that they can be adopted by users and customers effectively, and thus generate business and organisational success. Technological innovation must therefore be complemented by product/service, sales/marketing or business model innovation: a technological innovation with no practical application is not an innovation.

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NEXT GENERATION INNOVATION | Bpifrance | 100

6. Social innovation

Does the project respond to poorly-satisfied, or unmet social needs? or create novel social relationships or collaborations?

What do we mean?

A social innovation should primarily be defined according to the Oslo manual definition: a product/service, process/organization, sales/marketing or business model innovation, with two extra dimensions:

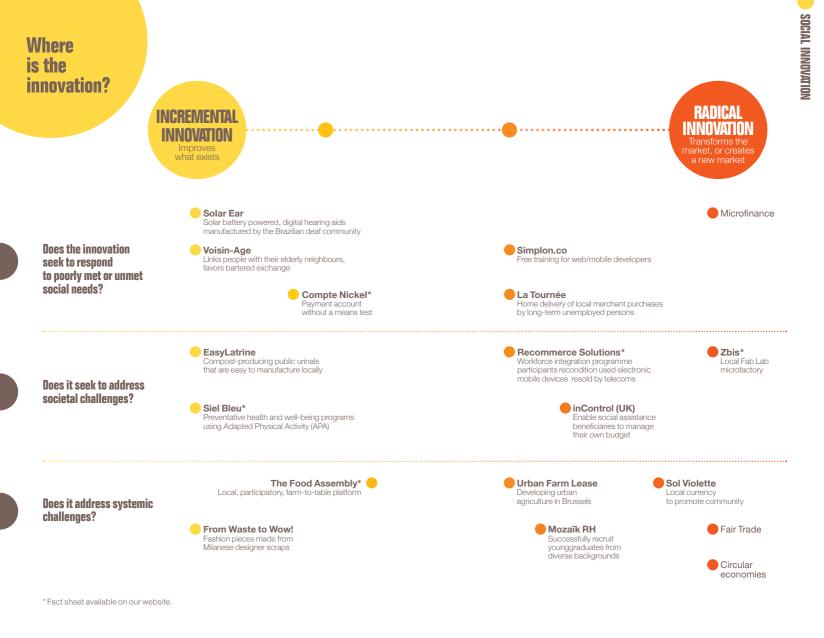
- include a social and societal mandate in its purpose:
 - respond to poorly or unmet social needs, usually in favour of disadvantaged or vulnerable populations: the excluded or poorly-housed, migrants, the elderly, children, etc.;
 - address societal challenges by integrating economic, social, environmental and territorial dimensions: mobility, housing, social cohesion, energy, recycling, etc.;
 - address systemic challenges by introducing structural changes that involve a large number of stakeholders. e.g., develop a circular economy;



- be «social» in practice, as much as in mandate.
 Specifically, social innovation:
 - seeks to involve its users, beneficiaries and stakeholders during every stage of the project, from needs identification, to solutions, to impact assessment;
 - seeks to share the economic value produced with all of society, not just concerned shareholders and entrepreneurs.

A social innovation can be carried out by any organization, non-profit, or member of the social economy, or by a conventional company (corporation, Llc, etc.).





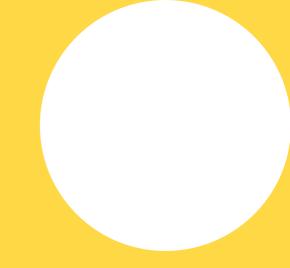
In addition, to qualify a social innovation project, it is important to ask some additional questions:

- Is the social and social mission part of the project's mandate (i.e., included in the company purpose statement and part of the business plan; subordination of other, purely economic objectives)?
- Will the economic value generated be captured by the company, or distributed (e.g., earnings reinvestment, profit and salary caps, intellectual property sharing, etc.)?
- Does the project involve its users, beneficiaries and stakeholders in several of its stages, from identifying the need to production?
- Does the project explicitly and rigorously measure its social and societal impact?

To learn more about the various types of innovation, please refer to the definitions and sources listed in Appendix 2.



RISING TO MEET THE CHALLENGES OF THE FUTURE, TOGETHER



What is new about the project, and how does its innovation set the organisation apart from its competitors?

This «benchmark» reference manual is based on these two pivotal questions, which enable innovation supporters to broaden their focus, and thus more easily identify innovative projects, better understand projects that may have previously escaped their notice, and more appropriately support today's innovators.

However, project analysis – no matter the type of innovation – does not stop there. Relevance is not everything: the project's success depends on the ability of innovators and their firms to seize opportunities and manage risk. Any business is, first of all, a human endeavour: team quality, organization, management and complementarity all make a huge difference. Every innovation is a bet on the future: entrepreneurs and innovation supporters alike must have the ability to assess the opportunities and conditions for success as accurately as possible, while at the same time be capable of identifying the unexpected, and responding as events unfold.

Finally, an innovation is nothing without its clients or beneficiaries, and entrepreneurs must arrange to receive their feedback – or even secure their participation – as early and as often in the innovation lifecycle as possible. All these issues must be addressed by every single entrepreneur, investor and actor supporting innovation. They impact key success factor implementation, as well as project risk analysis.

Public innovation support programmes have a mandate to encourage companies to take innovative «risks», and support entrepreneurs as well as they can on the path to success. By improving their current understanding of innovation, they can more fully play their part alongside entrepreneurs, private investors and entire innovation ecosystems.

Encouraging innovation in all its forms: that's

SERVING THE FUTURE

APPENDICES





Find the following project analyses on our website: bpifrance.fr

		PRODUCT, Service, USAGE	PROCESS, ORGANISATION	MARKETING, Sales	BUSINESS Model	TECHNOLOGICAL	SOCIAL
Project name	Description						
Bandsquare	Where artists and fans create unique concert experiences together	•			•		
Biscuits Poult	Managerial innovation based on employee autonomy and open innovation	•	•	•			
BlaBlaCar	Community rideshare service	•		•	•		
Compte Nickel	The first bankless payment account, available at tobacconists	•	•	•	•	•	•
Cozy Cloud	A «personal cloud» that enhances people's digital experience by giving them control over their own data.	•		•	•	•	
DMD Santé	A platform to evaluate and recommend mobile health applications and smart devices	٠			•		
Ecocup	«From disposable to sustainable»: eco-friendly, customisable and reusable cups for events	•	•		•		•
lota Element	Artisanal furniture integrated with high-tech (sound, internet, multimedia, etc.)	٠					
The Food Assembly	«Let's get together to buy the best food available, directly from local farmers and foodmakers»	•		•	•		•
Leetchi	«The perfect solution to collect money for group gifts and events»	•			•	•	
Michel et Augustin	Premium and innovative food products, original marketing and strong customer bonds	٠	•	•			
Recommerce	Return and resale solutions for used mobile phones	•	•		•	•	
Sculpteo	«Your 3D design turns into reality with 3D printing»	•	•	•	•		
Siel Bleu	Preventative health and well-being programs using Adapted Physical Activity (APA)	•			•		•
Stimergy	Cloud services provider reduces costs by monetising the heat generated by its servers	•		5	•		
Sushi Daily	Sushi bars located inside existing hypermarkets	•	•	•	•		
Ulule	Crowdfunding platform	•			•		
Zbis	Local shared microfactory in the Vendée	•	•				•

TYPE OF INNOVATION

2. To find out more:

1. Product, service, usage innovation

Official definitions:

OECD (Oslo Manual): «the introduction of a good or service that is new or significantly improved with respect to its characteristics or intended uses. This includes significant improvements in technical specifications, components and materials, incorporated software, user friendliness or other functional characteristics.»

• For further information:

- on product and service innovation categories: Rowley, J., Baregheh, A., & Sambrook, S. (2011). Towards an innovation-type mapping tool. *Management Decision*, 49⁽¹⁾, 73-86. (available via Google Scholar)
- on product innovation processes: Industrie Canada (2010). L'état de la conception de produits: Le rapport canadien 2010.
- on design-driven innovation: Verganti, Roberto (2009). *Design-driven Innovation*. Boston: Harvard Business Press.

2. Organisational and process innovation

Official definitions:

OECD (Oslo Manual):

Process: «the implementation of a new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software.»

Organisation : «the implementation of a new organisational method in the firm's business practices, workplace organisation or external relations. »

• For further information:

 on the distinction between «process» and «product» innovation: Sheynkman, K. (2011). Process vs. product. Passionate Intensity (blog), http://blog.thansys.com/ innovation-process-vs-product/

3. Sales/marketing innovation

Official definitions:

OECD (Oslo Manual): «the implementation of a new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing.»

• For further information:

The SCOPS awards (University Paris Dauphine -Credoc) locate and reward the best business innovations on an annual basis. See also an analysis by Credoc: *Quelles innovations commerciales au regard des attentes des consommateurs?* November 2012.

- the annual Dupont Packaging Awards;
- a reference manual: Meyronin, B. & Munos, A. (2012). Manager l'innovation par le service. Paris: PUG.

4. Business model innovation

No official definition of business model innovation exists. The «Business Model Canvas» is the tool most widely used to describe the components of a business model:

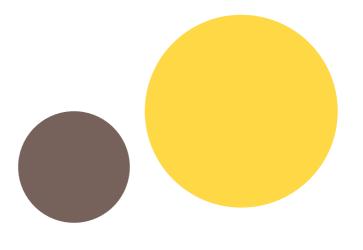
- the website of the concept's founder, Alexander Osterwalder : www.businessmodelgeneration.com
- For further information:
 - Amit, R., Zott, C., & Pearson, A. (2012). *Creating value through business model innovation*. MIT Sloan Management Review, 53.
 - Christensen, C. (2013). The innovator's dilemma: when new technologies cause great firms to fail. Boston: Harvard Business Review Press.

5. Technological innovation

- French government list of priorities regarding technological innovation
 - the 34 roadmaps for The New Industrial France www.economie.gouv.fr/nouvelle-france-industrielle
 - the 7 strategic ambitions of France's Innovation 2030 Commission:

www.innovation-2030.entreprises.gouv.fr

- For further information:
 - Callahan, J. (2008). Patterns of Technological Innovation.



6. Social innovation

Official definitions:

- European Commission: «Social innovations are new ideas (products, services and models) that simultaneously meet social needs (more effectively than alternatives) and create new social relationships or collaborations.» The EU definition adds that «these solutions are both social in their ends and in their means.»
- Conseil Supérieur de l'Économie Sociale et Solidaire (the Higher Council for the Social and Solidarity Economy, CSESS) : «Social innovation consists of developing new answers to emerging or poorly met social needs by the current market and social policies, involving the participation and cooperation of stakeholders, including users. These innovations relate to both product or service, as well as modes of organization or distribution, in areas such as aging, child care, housing, health, the fight against poverty, exclusion and discrimination. [...]»;
- France's Loi du 31 juillet 2014 (law passed 31/07/2014) relative to the social economy: «Companies whose corporate purpose is concerned primarily with at least one of the following three conditions are considered as pursuing a social utility within the meaning of this act»:

1. Through their activities, the enterprise aims to provide support to people in situations of fragility either due to economic or social status, or due to personal circumstances, and specifically their health or need for social or medical support. These people may be employees, users, customers, members or beneficiaries of this enterprise.

2. The enterprise aims to fight against social exclusion and health, social, economic and cultural inequalities, and for civil education, including the public education system, and the preservation and development of social ties or of the maintenance and strengthening of territorial cohesion.

3. The enterprise contributes to sustainable development in economic, social, environmental and participatory dimensions, to energy resource transition and to international solidarity, provided that their activity is equally related to one of the objectives referred to in the first 2 points.

• For further information:

- The European Commission's Social Innovation Guide (2013);
- The European Social Innovation competition: www.socialinnovationcompetition.eu
- Phills, J. A., Deiglmeier, K., & Miller, D. T. (2008). Rediscovering social innovation. *Stanford Social Innovation Review*, 6(4), 34-43.
- A good article from the American point of view, which provides a definition of social innovation as «a new solution to a social problem, which is more effective, efficient, durable, and more just than existing solutions and whose value creation is intended for society as a whole rather than individuals in particular.»

B References and practical information

Official publications

Oslo manual: Guidelines for collecting and interpreting innovation data. (No. 4.) Statistical Office of the European Communities, Publications de l'OCDE (2005).

Guide to Social Innovation. European Commission (2013).

Public sector reports

«Innovation Union Scoreboard 2014.» European Commission (2014).

Beylat, J-L & Tambourin, P. (2013). *L'innovation, un enjeu majeur pour la France*. Ministères du Redressement productif et de la Recherche, La Documentation Française.

Un principe et sept ambitions pour l'innovation. The Commission for Innovation, presided over by Anne Lauvergeon, La Documentation Française (2013).

Morand. P. & Manceau, D. (2009). Pour une nouvelle vision de l'innovation. La Documentation Française.

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Christensen, C., & Raynor, M. (2013). *The innovator's solution: Creating and sustaining successful growth.* Boston: Harvard Business Review Press.

Kim, W. C., & Mauborgne, R. (2005). *Blue ocean strategy: How to create uncontested market space and make competition irrelevant.* Boston: Harvard Business Press.

Von Hippel, E. (2009). Democratizing innovation: the evolving phenomenon of user innovation. *International Journal of Innovation Science*, 1⁽¹⁾, 29-40.

Murray, R., Caulier-Grice, J., & Mulgan, G. (2010). *The open book of social innovation*. National Endowment for Science, Technology and the Art.

Essential browsing

Bpifrance : www.bpifrance.fr

FING : www.fing.org

Innovation Union, the European Commission website dedicated to innovation:

www.ec.europa.eu/research/innovation-union/index_en.cfm

The 'Innovation' tab on the Ministry of Productive Recovery website (French): www.redressement-productif.gouv.fr/innovation

French innovation clusters: www.competitivite.gouv.fr

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