
Innovation Culture in Organizations

6.1. Introduction: recent developments in the concept of innovation

Radical innovations shape the great changes in the world while incremental innovations continuously fuel economic change [SCH 34]. Innovation is one of the few business concepts that everyone can see the value of [MID 12]: it is seen as a contributing factor for strengthening the competitiveness of an industry, for meeting customers' expectations, creating skilled jobs and motivating employees. Regardless of the analytical framework chosen, liberal or not, including solidarity principles or not, globalist or not, only innovation seems to be able to reconcile social and economic approaches to economic growth [LEM 06]. In particular, it is considered an essential attribute to save Western industry [MID 12].

However, the very concept of innovation has evolved considerably over the last 30 years. To define innovation, characterize it and monitor its evolution, the Organisation for Economic Co-operation and Development (OECD) has published the *Oslo Manual* [OEC 92, OEC 97, OEC 05]. The first two editions (1992 and 1997) focused mainly on product and process technological innovation. In 1997, however, the concept of non-technological innovation was introduced. Finally, the third edition, dating from 2005, considers four categories of innovation in its own right: product, process, organizational and marketing innovation. Moreover, even the product innovation sector goes far beyond the technological dimension. It is first useful to recall that a product is defined as a good or a service, so

there are many products that have no technological form and are expressed in the form of services (e.g. services related to information, training, to the person and to goods; [HOW 04] cited by [OEC 05]). The economic importance of innovation in services is increasingly recognized [OEC 05].

Moreover, innovation in products/material goods may relate either to the technology used or to the functions or uses implemented [OEC 05]. In other words, it is not necessary to bring a new technological element to innovate: combining existing technologies to propose new applications can lead to innovation, and even radical innovation. Agencies that monitor innovation around the world stress that the most effective innovation strategy at present seems to be the Need-Seeker strategy [JAR 14, PEL 13], which involves anticipating future needs and uses. This strategy is conducive to the generation of radical innovations focused on the uses and functional qualities of products.

These developments give rise to new questions about innovation management. Previous models of innovation, which tended to push firms and governments to encourage Research and Development (R&D) activities to stimulate innovation, have shown their limitations [FOR 14]. Despite this, the influence of these previous models is still visible in Europe today, notably through the calculation of the *European Innovation Scoreboard* [EUR 16] or “Lisbon ranking”, which favors organizations and countries capable of investing, but which paradoxically are not necessarily the most innovative in terms of results [EDQ 15]. The notion of deflationary innovation [NOA 16], characteristic of the beginning of the 21st Century, also calls into question the creation of monetary value associated with innovation. Indeed, the digital sector allows the development of economic models with little or no marginal costs, which create value in use for consumers and society in general but generate small gains for the owner of the technology [NOA 08, NOA 16]. As a result, companies today find themselves in a situation where they can no longer support themselves reliably with a technological approach to innovation, nor on a traditional monetary economic approach. They thus tend to rethink their innovation strategy so as to involve the maximum number of employees, in all their diversity of functions, approaches and vision, in innovation management. This approach, which consists of making everyone accountable for innovation and multiplying potential sources of innovation, requires a true culture of innovation within the organization. In the remainder of this chapter, we propose to model what an innovation culture is and what factors

it must involve to constitute a breeding ground favorable to innovation activities.

6.2. Innovation culture in organizations

An organization's culture can be defined as the set of standard habits, behaviors and representations shared by its members. This culture serves as social cement [CAM 11] for the life of the organization. It is also a powerful management tool that allows members of the organization to act independently and consistently [CHR 11]. The "innovation culture" is a particular configuration that makes innovative thinking natural within the organization and encourages innovation activities at the level of all employees. An analysis of the literature shows that the innovation culture has specific characteristics in five dimensions:

- the presence of innovative leaders and managers;
- the presence of innovative teams;
- the presence of innovative individuals;
- an organizational context conducive to innovation;
- multiple and easy links with outside of the organization.

These dimensions all rest on a foundation consisting of the innovator's skills or discovery skills [CHR 13] (observe, question, network, experiment and associate) that must be disseminated at all levels of the organization. In the following sections, we detail the characteristics of each of the five dimensions of innovation culture.

6.2.1. Innovative leaders and managers

The management of an organization's culture is the responsibility of its leaders and making it evolve will first require changes that concern them personally [CAM 11]. For example, a company will not be able to progress from a traditional management mode to a self-governed type of management without the manager's commitment [LAL 15] and a profound personal questioning [COL 16]. The most innovative organizations are led by innovators who have created products, developed discovery skills, and also believe they can change the world [CHR 13]. Leaders have an important role

to play in supplying all company departments with innovative individuals [CHR 13] and in encouraging staff creativity as an initial step in innovation [AMA 96]. Moreover, each hierarchical level is likely to generate a variation in organizational climate. One unit can be much more innovative than another, simply because the manager creates the right climate [AMA 16]. Leaders and managers are therefore key elements in approaching an organization's innovation culture.

However, their behavior is embedded in the culture of the country to which they belong. This may involve variations in power distance or uncertainty tolerance, both of which may influence the innovation process [HOF 10]. Innovation is encouraged by a low power distance and a high level of tolerance for uncertainty. In cultures with a great power distance, it is rather the ideas of the hierarchy that will be implemented. As for intolerance to uncertainty, it will delay the implementation of new ideas [HOF 10]. These elements suggest that, for a company, developing an innovation culture will be easier in countries with a low power distance (e.g. Israel, Sweden, Great Britain, Germany and the United States) than in those with a high power distance (e.g. Japan, France, Brazil, China and Russia) because, in the latter case, the innovation culture will be partially in contradiction with the culture of the country in which the company is located. Similarly, it will be easier to develop an innovation culture in countries with a high tolerance for uncertainty (e.g. Sweden, China, Great Britain, India and the United States) than in countries with a low tolerance for uncertainty (e.g. Germany, Brazil, Israel, France, Japan and Russia).

6.2.2. Presence of innovative teams

Most innovative work is done in teams, but creative performance varies from team to team. Performance in generating and promoting ideas within a team is found to correlate with its motivational orientation [RIE 11]. It is the process by which an individual or a group makes its actions consistent with its objectives, values and norms. Motivation can be prevention (avoidance of losses) or promotion (obtaining benefits aimed at an ideal). In addition, innovative companies favor small, well-structured project teams and bring together individuals who excel in complementary discovery skills [CHR 13]. Furthermore, to be effective in creative work, a team must be composed of individuals who have different skills, good communication, openness to new

ideas, as well as the ability to challenge, trust and help each other [AMA 96]: individuals thus benefit from the team's support.

6.2.3. Presence of innovative individuals

The innovative individual with superior discovery skills is crucial within an organization [CHR 13]. It is he or she who brings creativity, that is, the production of new and useful ideas, and who is at the source of innovation, that is, the implementation of creative ideas in the organization [AMA 96]. As a result, innovative individuals contribute significantly to an organization's innovation performance. C. Brooke Dobni [DOB 08] identified seven factors for measuring the innovation culture, two of which are related to individuals: on the one hand, empowerment, freedom and creativity and on the other hand, commitment to the innovation process. In addition, the results of work engagement surveys also suggest that there is a direct link between individual engagement and firm-level innovation [GAL 13]. Since the 1990s, the Gallup Institute has measured the engagement of more than 25 million employees (excluding the self-employed) in 195 different countries, in all types of sectors and organizations (commercial, non-profit, other). Three categories of employees are observed: engaged, non-engaged and actively disengaged. Engaged individuals are those who work with passion, in accordance with their company's vision. They stimulate innovation and are particular driving forces. Non-engaged employees do their jobs as required without any particular passion. Finally, those who are actively disengaged are unhappy at work and undermine the work of others. The Gallup Institute's survey results show an overall proportion of 13% of engaged employees worldwide, 63% non-engaged and 24% actively disengaged. The highest rates of engaged employees are found in Australia and New Zealand (24%) and the lowest in East Asia and especially China (6%). More generally, the rate of engaged employees is higher in highly developed countries (19%) than in emerging economies (10%). Thus, beyond their discovery skills, individuals can contribute through their commitment to innovation in their organization.

6.2.4. Organizational context

Kim S. Cameron and Robert E. Quinn [CAM 11] model organizational cultures by comparing them along two axes: stability and control versus flexibility and discretion on the one hand, and internal focus and integration

versus external focus and differentiation on the other hand. These two axes define four types of corporate culture: hierarchy (control and internal focus), market (control and external focus), clan (flexibility and internal focus) and adhocracy (flexibility and external focus). Only the adhocracy quadrant corresponds to the innovation culture. Frédéric Laloux [LAL 15] proposes an evolutionary model of the culture of organizations. Since prehistoric times, human beings have invented a new type of social structure at every stage of their development, bringing radical organizational innovations. Five types of organization coexist in today's societies. The red organizations date from the hunter-gatherers. Characterized by relational violence, they invented the division of tasks and the notion of hierarchy. The mafia is such an organization. The amber organizations appeared with agriculture; they are characterized by a great conformism and invented processes, stability over time. Some public administrations are examples of this. Orange organizations emerged from the Renaissance and the industrial revolution; they live under the paradigm of success. Innovation, responsibility and meritocracy are the three organizational innovations we owe to them; most multinationals today operate in this orange mode. The other two forms of organization are more recent. The green type appeared about 40 years ago, with the information society; it is the stage of plurality: empowerment of employees, integration of stakeholders and return to values are the organizational innovations of this stage. Today a new stage emerges, qualified as evolutionary, of opal color, having invented the self-governance, the assertion of oneself and an evolutive reason for being. In today's society, there are essentially amber or orange organizations. In this model, innovation is a constituent of orange, green and opal stage organizations, and the innovation culture increases with the progression in these stages of evolution. Conversely, innovation is not at all natural in the red and amber stages. The innovation process will therefore be different according to the stage of evolution of the organization and the state of development of the innovation culture: the more natural the innovation, the less the process will need to be framed and explained.

Some approaches that focus directly on business processes analyze the presence or absence of best practices [BOL 08] to characterize an organization's capacity to innovate [MOR 15, BOL 16]. By construction, 16 of the 18 practices identified are linked to the internal organizational context (e.g. creativity, new product development, human resources management, strategy, innovative project management, knowledge management) and 8 of them are directly linked to the product and the client.

Beyond the presence or absence of given practices, it is also interesting to analyze the way in which the organization is capable of changing its practices over time, and the speed of these evolutions [DOB 08]. For Christensen [CHR 13], innovation processes must encourage the use of discovery skills and the company's general philosophy must include four principles [CHR 13]: innovation is everyone's business, disruptive innovation is central, a preference for small and structured project teams and intelligent risks are taken. Business processes could be seen as a fifth principle, which could be formulated as follows: processes enable the use of discovery skills and support innovators. If we return to the key factors proposed by C. Brooke Dobni to evaluate the innovation culture [DOB 08], 5 out of 7 are related to the organizational context as they must be shared by all employees: social representation of innovation, organizational learning capacity, market orientation (product, customer, competitor), value orientation, and agile and flexible context. Here too, it is rather a philosophy of action that is evaluated.

Another school of thought, emanating from Teresa Amabile, is to focus on the work environment, and how it enables and promotes innovation [AMA 96, AMA 11, AMA 16]. The elements identified in this area are the absence of organizational impediments, sufficient resources, an identified innovation process, the presence of innovation management competence, meaningful work, a good level of challenge for everyone and a motivation to innovate. A similar approach, at another level, was followed to analyze the Silicon Valley innovation ecosystem [HWA 12]. To illustrate the ecosystem model of innovation that results from their work, the authors use the analogy of the Amazonian forest (hence the title of their book, *The Rainforest* [HWA 12]): this model implies that innovation would occur preferentially in luxuriant contexts, rich in exchanges, and would often be born from "weeds" that develop spontaneously without having been expected or encouraged. This image is in contrast to that of the field (planted with seeds), with a well-defined process, everything all lined up, and where weeds are regularly eliminated. This vision is partly in line with our analysis of Frédéric Laloux's evolutionary model [LAL 15]: when innovation is natural, it does not need a formalized process, it develops no matter what happens, like a weed. Thus, Silicon Valley start-ups seem to operate according to seven implicit rules [HWA 12]: "Break the rules and dream", "Open doors and listen", "Trust and be trusted", "Experiment and iterate together", "Seek fairness, not advantage", "Err, fail and persist" and "Pay it forward". These rules overlap with many elements identified by other authors: empowerment

and freedom [DOB 08], promotion-oriented regulatory focus [RIE 11], the search for disruptive innovation as well as the innovator's skills [CHR 13], interpersonal trust [AMA 16], low power distance [HOF 10], the importance of values (here: equity rather than benefit) identified by Frédéric Laloux's findings in green organizations [LAL 15], the relationship to uncertainty [HOF 10] and risk [CHR 13], and a permeability between inside and outside the organization; a factor we develop in the following section.

6.2.5. Links to the environment outside the organization

One dimension of the innovation culture [CAM 11] is the emphasis on relationships with outside the organization. For these researchers, this dimension of openness goes hand in hand with differentiation and rivalry. These last two characteristics, in Frédéric Laloux's model [LAL 15], only concern organizations in the orange stage. Indeed, organizations develop a specific type of external relationship at their stage of evolution. In the red stage, there is always war: the other is an enemy. At the amber stage, the organization seeks to have no connection with the outside world, it wants to be self-sufficient and aims for monopoly: the other and change are suspicious. In the orange stage, competition reigns between organizations, as between individuals: the other is a rival, and you have to stay ahead of them. With the green stage, justice, equality and harmony are sought at all levels: stakeholders, shareholders, management, employees, civil society and nature must be able to benefit; the other is a valuable counterpart. With the opal stage, the organization is self-governed and integrates the human in its completeness. To function, this type of organization gives the means to make each relationship fruitful, whether internal or external [LAL 15]. Thus, depending on the type of organization, the external relationship moves from denial and suspicion to trust and cooperation.

Let us also remember that networking is part of the discovery skills that are sought at all levels of the company (individuals, teams, management) [CHR 13]. External relations are therefore a matter for all staff, as in opal organizations, where each individual is, in fact, in direct contact with the outside world, on the "front line" [DES 16]. The types of external links can be approached in different ways: for Vincent Boly [BOL 16], the place of the client in the design process or the insertion of the company in a network are described by looking outside the organization from within, as through a window. In *The Rainforest* [HWA 12], the approach is broader, and allows a

dynamic or even interactive mapping of the ecosystem: the perimeter around the organization is explored (stakeholders, institutions, large groups, financiers, entrepreneurs, population, local culture and available skills) and integrates a temporal dimension (collaborative projects and changes of direction are possible, easy and fast). This dynamic is also found within the organization. Relationships with the external environment favoring innovation therefore have three characteristics: they are based on a benevolent view of the external environment, supported by a multiplicity and variety of internal/external contact points and supported by the ease and speed of setting up collaborations.

6.2.6. The ETOILe model of the innovation culture

All the components of the innovation culture that we have just presented are summarized (Figure 6.1) in a five-branch model called ETOILe (Environment, Team, Organization, Individuals and Leaders). The objective of this model is to provide a unified vision of the dimensions of innovation culture for the use of enterprises, practitioners, researchers and trainers. It was used as a basis for designing surveys for the identification of innovation culture [DAV 16, DAV 17], for designing an educational game [INN 17] and for awareness-raising activities [GUI 16].

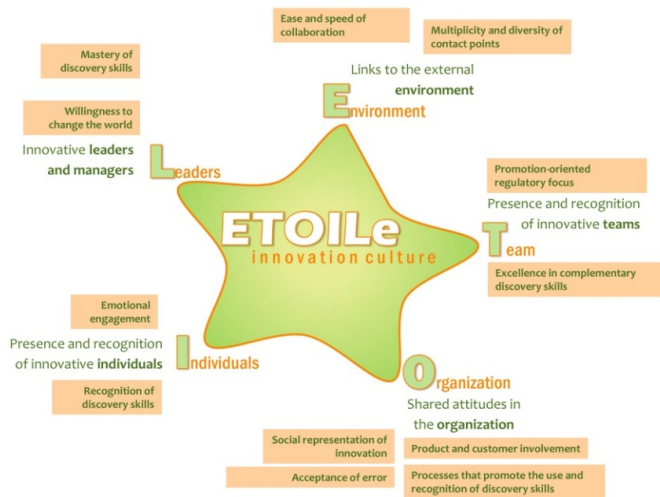


Figure 6.1. ETOILe model of the innovation culture in organizations

6.3. Discussion

In an organization, the innovation culture is rooted first and foremost in discovery skills (among managers, within teams and among individuals taken independently). The innovation culture is then based on a favorable context of empowerment, motivational orientation, cooperation inside and outside the organization, and founding values. The five branches of the innovation culture, as shown in the ETOILe [STAR] model, seem to have common determinants, such as the notion of trust outlined by many authors [AMA 16, HWA 12, LAL 15]. Self-confidence could allow the expression and development of discovery skills in individuals and leaders; trust in others could allow horizontal management modes, reducing power distance and fostering empowerment and cooperation within the organization, as well as cooperation with entities outside the organization. Finally, confidence in the future may stimulate acceptance of uncertainty and risk. Trust in others appears to be a major factor in horizontal cooperation in large organizations, cooperation with strangers or competitors and a predictor of organizational performance [LAP 97]. Moreover, this general factor of trust in others appears strongly correlated with confidence in the future, and these dual dimensions of trust both reduce the perception or fear of risk [EIS 05]. To simplify, we could summarize the innovation culture as a set of factors that give the organization the confidence necessary to express innovation in its sector, its businesses and its products. The development of the innovation culture depends, in particular, on a long-term recruitment and training strategy, value-based management, and a long-term organizational development policy (e.g. through its projects).

The relationship between the technical culture and the innovation culture appears complex and evolving. In the ETOILe [STAR] model, the innovation culture is conceptualized independently of the knowledge, skills and professions developed in the company, the latter being certainly necessary, but not sufficient enough for innovation to occur. In this, we agree with the vision that technical culture supports the capacity to innovate, without objectifying it [GAR 17] and add that the innovation culture would allow, through trust, to express this capacity to innovate. Technical culture can be seen as a prerequisite for innovation: historically, the modern approach to innovation seems to have emerged from the technical culture and the dream of engineers, interacting with the dream of consumers [GAR 17]. We find in this conceptualization the dialectic of technology and uses mentioned above in the analysis of contemporary innovation strategies.

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In a coherent way, the innovation process in organizations can be modeled as the product of technical skills, innovation skills (e.g. creativity, discovery skills) and motivation to innovate [AMA 16]. Technical skills without discovery skills would not generate relevant ideas [NAV 14]. However, outside organizations or in nascent organizations such as start-ups, we observe that the innovation process can today be initiated from the consumer's dream only (see, in particular, [VON 05]) and sometimes without technical dimension, especially in the field of services.

The question of the meaning of innovation (as an outcome and as a process) is also complex to embrace. The attribution of the meaning of the technical object can be seen as emanating from the technical culture [CHO 17]. However, historical analysis suggests that this meaning is dynamic, and many examples of new products were mistrusted by consumers before they were adopted [GAR 17]. The social representation of a product can even pass through the centuries from "dehumanizing" to emblematic of sustainable development [LEQ 17]. For this reason, the meaning of the innovative product does not seem to us to be inherent in its technical dimension, but rather appears as a social construct that varies in space and time. In this respect, the meaning of products does not seem to us to be reducible to either the technical culture or the innovation culture but would also depend on social and cultural representations and their evolution. Society itself participates in the genesis, reception and transformation of innovation [LEQ 17].

On the contrary, not all organizations are equal on the issue of the meaning of innovation as a process. Referring to Frédéric Laloux's model described earlier [LAL 15], the organizations of the orange stage, which emerged from the industrial revolution, achieved great success by adding up and generalizing innovation, responsibility and meritocracy. One of their successes is the emergence from widespread global poverty. For orange stage organizations, innovation is therefore part of the organizational culture by construction, but is implicitly perceived as critical because it is vital. Innovation is therefore an obligation for them. Today, orange stage organizations are reaching their limits with "crazy" innovation, growth for growth, unsustainable environmentally, without real meaning for individuals [LAL 15]. This loss of meaning [CHO 17] would not be related to the innovation itself, but to the stage of evolution of the organization. Indeed, companies in the following stages (green and opal), which benefited from the advances of the orange stage, are also predisposed to innovation, but they

have put innovation back at the service of a vision of man and society and have given new meaning to the dynamics of evolution. As a result, the conditions that allow and promote innovation could often be found there. This is not the case for organizations from previous stages, particularly amber organizations. They value stability, guaranteed by rigorous processes, and view the future as a repetition of the past. For this type of organization, encouraging innovation can be seen as a double bind or paradoxical injunction. Thus, depending on the progress of the organizational culture, innovation can be contradictory, constraining or natural, and imbued with meaning for the organization that supports it and for the society that welcomes it.

6.4. References

- [AMA 96] AMABILE T., CONTI R., COON H. *et al.*, Assessing the work environment for creativity, *Academy of Management Journal*, vol. 39, no. 5, pp. 1154–1184, 1996.
- [AMA 11] AMABILE T., KRAMER S., *The Progress Principle: Using Small Wins to Ignite Joy, Engagement, and Creativity at Work*, 1st ed., Harvard Business Review Press, Boston, 2011.
- [AMA 16] AMABILE T., PRATT M., “The dynamic componential model of creativity and innovation in organizations: making progress, making meaning”, *Research in Organizational Behavior*, vol. 36, pp. 157–183, 2016.
- [BOL 08] BOLY V., *Ingénierie de l’innovation : organisation et méthodologies des entreprises innovantes* (2nd ed. reviewed and updated, vol. 1–1), Hermès Science Publications-Lavoisier, Paris, 2008.
- [BOL 14] BOLY V., MOREL L., CAMARGO M. *et al.*, “Evaluating innovative processes in french firms: methodological proposition for firm innovation capacity evaluation”, *Research Policy*, vol. 43, no. 3, pp. 608–622, 2014.
- [BOL 16] BOLY V., CAMARGO M., MOREL L., *Ingénierie de l’innovation* (3rd ed., vol. 1–1), Lavoisier-Hermès, Paris, 2016.
- [CAM 11] CAMERON K.S., QUINN R.E., *Diagnosing and Changing Organizational Culture: Based on the Competing Values Framework*, 3rd ed., John Wiley & Sons, San Fransisco, 2011.
- [CHO 17] CHOUTEAU M., FOREST J., NGUYEN C., Quand la culture d’innovation fait écran à la culture technique, *Technologie et innovation*, vol. 17, no. 4, ISTE OpenScience, 2017.

Comment [ss2]: References [BOL 14] and [SIE 05] are provided in the list but not cited in the text. Please provide their citation details in the text.

Comment [ss3]: Please check that the inserted year of citation for reference [CHO 17] is correct.

- [CHR 11] CHRISTENSEN C., *The Innovator's Dilemma: The Revolutionary Book That Will Change the Way You Do Business* (Reprint edition). HarperBusiness, 2011.
- [CHR 13] CHRISTENSEN C., DYER J., GREGERSEN H., *Le gène de l'innovateur: Cinq compétences qui font la différence*, 1st ed., Pearson, 2013.
- [COL 16] COLLIGNON C., HERVÉ M., FOUCARD D. *et al.*, Table ronde, séance de clôture. Présenté à Université de l'Innovation Managériale, Paris, 2016.
- [DAV 16] DAVIES M., BUISINE S. Comment diagnostiquer la culture innovation d'une organisation? Presented at the Forum de l'Innovation VII, Paris, 2016.
- [DAV 17] DAVIES M., BUISINE S., LEJEUNE V. *et al.*, La culture innovation: Proposition et mise en œuvre du modèle ETOILE. Presented at the Forum d'Été du Réseau de Recherche en Innovation, Nancy, 2017.
- [DES 16] DESJONQUÈRES S., BRIÈRE T., Des conséquences du passage de l'entreprise du comment à l'entreprise du pourquoi. Presented at the Université d'été de l'Innovation Managériale, Paris, 2016.
- [DOB 08] DOBNI C.B., "Measuring innovation culture in organizations", *European Journal of Innovation Management*, vol. 11, no. 4, pp. 539–559, 2008.
- [EDQ 15] EDQUIST C., ZABALA-ITURRIAGAGOITIA J.M., *The Innovation Union Scoreboard is Flawed: The Case of Sweden—not Being the Innovation Leader of the EU*, Lund University, CIRCLE-Center for Innovation, Research and Competences in the Learning Economy, 2015.
- [EUR 16] EUROPEAN UNION, *European Innovation Scoreboard*, Brussels, 2016.
- [FOR 14] FOREST J., Petite histoire des modèles d'innovation, in BOUTILLIER S., GALLAUD D., FOREST J. *et al.* (eds), *Principes d'économie de l'innovation*, Peter Lang, 2014.
- [GAL 13] GALLUP INSTITUTE, *State of the Global Workplace*, 2013.
- [GAR 17] GARÇON A.-F., "Une brève histoire de la culture technique européenne et de sa relation à l'innovation", *Technologie et innovation*, vol. 17, no. 4, ISTE OpenScience, 2017.
- [GUI 16] GUILLEMOT G., BUISINE S., DE CAGNY A. *et al.*, *Les innovations créatrices d'emplois industriels*, Institut de le Réindustrialisation, GIM, Paris, 2016.
- [HOF 10] HOFSTEDE G., MINKOV M., *Cultures et organisations*, 3rd ed., Pearson Education, Paris, 2010.

Comment [ss4]: Please check that the inserted year of publication for reference [GAR 17] is correct



- [HOW 04] HOWELLS J., TETHER B., GALLOUJ F. *et al.*, *Innovation in Services: Issues at Stake and Trends*, European Commission, Brussels, 2004.
- [HWA 12] HWANG V.W., HOROWITT G., *The Rainforest: The Secret to Building the Next Silicon Valley*, 1.02 ed., Regenwald, 2012.
- [INN 17] INNOVENT E., Jeu pédagogique de sensibilisation à l'innovation et à l'export, IDEFI InnoVENT-E, Paris, 2017.
- [JAR 14] JARUZELSKI B., STAACK V., GOEHLE B., *Proven paths to innovation success*, Strategy + Business, 2014.
- [LAL 15] LALOUX F., *Reinventing Organizations: Vers des communautés de travail inspirées*, Diateino, 2015.
- [LAP 97] LA PORTA R., LOPOEZ-DE-SILANES F., SHLEIFER A. *et al.*, "Trust in large organizations", *The American Economic Review*, vol. 87, no. 2, pp. 333–338, 1997.
- [LEM 06] LE MASSON P., WEIL B., HATCHUEL A., *Les processus d'innovation: Conception innovante et croissance des entreprises*, Lavoisier, Paris, 2006.
- [LEQ 17] LEQUIN Y.-C., "Ce qui fait le vélo, et ce qu'il change en France (1816-2016)", *Technologie et innovation*, vol. 17, no. 4, ISTE OpenScience, 2017.
- [MID 12] MIDLER C., BEAUME R., MANIAK R., *Réenchanter l'industrie par l'innovation: L'expérience des constructeurs automobiles*, Dunod, Paris, 2012.
- [MOR 15] MOREL L., *Formation en ligne: Mesurer et augmenter la capacité à innover d'une entreprise | Innovation On The Web*. Accessed 23 December 2016, at: <http://innovation-on-the-web.com/node/5890>, 2015.
- [NAV 14] NAVARESSE D.O., YAUCH C.A., GOFF K. *et al.*, "Assessing the effects of organizational culture, rewards, and individual creativity on technical workgroup performance", *Creativity Research Journal*, vol. 26, no. 4, pp. 439–455, 2014.
- [NOA 08] NOAILLES-SIMÉON P., CHAMBAUD S., *L'innovation – Valeur, économie, gestion*, ESKA, Paris, 2008.
- [NOA 16] NOAILLES-SIMÉON P., "L'innovation déflationniste", *Revue Française de Gestion*, vols 281–282, pp. 23–34, 2016.
- [OEC 92] OECD, *Manuel d'Oslo*, 1st ed., 1992.
- [OEC 97] OECD, *Manuel d'Oslo*, 2nd ed., 1997.

Comment [ss5]: Please check that the inserted year of publication for reference [LEQ 17] is correct.



Comment [ss6]: Please provide publisher and location details for references [OEC 92], [OEC 97] and [OEC 05].



- [OEC 05] OECD, *Manuel d'Oslo*, 3rd ed., 2005.
- [PEL 13] PÉLADEAU P., ROMAC B., ROZEN A. *et al.*, *L'innovation dans les entreprises en France*, Booz & Company Inc., Paris, 2013.
- [RIE 11] RIETZSCHEL E.F., "Collective regulatory focus predicts specific aspects of team innovation", *Group Processes & Intergroup Relations*, 2011.
- [SCH 34] SCHUMPETER J., *The Theory of Economic Development*, Harvard University Press, Cambridge, 1934.
- [SIE 05] SIEGRIST M., GUTSCHER H., "Perception of risk: the influence of general trust, and general confidence", *Journal of Risk Research*, vol. 8, no. 2, pp. 145–156, 2005.
- [VON 05] VON HIPPEL E., *Democratizing Innovation*, MIT Press, Cambridge, 2005.

Comment [ss7]: Please check that the inserted year of publication for reference [SCH 34] is correct. 