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Tips and solutions for effective communication to decision-makers

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Table of Contents

I. Introduction5
II. M-Benefits Toolkit Overview5
III. Effective communication on energy-efficiency investment projects
Decisional context of energy-efficiency investment projects9
1. Commodity view organisations9
2. Investment decision-making11
3. Culture(s)13
Tips and solutions for effective communication15
1. Communication: creating shared understanding15
2. Influencing organisational behaviour
2.1 Communicate!19
2.2 Use framing and influence techniques to be more effective in your communication
2.3 Make it strategic: energy efficiency and core business20
2.4 Take into account cultural differences and adapt your sales arguments23
2.5 Start communicating early27
2.6 Reduce uncertainty regarding investment results: data quality28
IV. Conclusion28
V References

Figures

Figure 1. Figure 1 – Methodology (Toolkit) to identify, categorise, evaluate and quantify the Multiple Benefits of energy-efficiency projects
Figure 2. Table 1 – Multiple Benefits Toolkit Documents
Figure 3. Figure 2 – The Star Model (Galbraith, 1995)9
Figure 4. Figure 3 – The investment process (Cooremans, 2012)11
Figure 5. Figure 4 – Organizational Decision Making as Interwoven, Driven by Linkages (Langley, Mintzberg, Pitcher, Posada et Macary, 1995:275)13
Figure 6. Figure 5 – Interacting cultural spheres of influence (Schneider and Barsoux, 2003:47)
Figure 7. Figure 6 – The transmission model of communication (simplified)15
Figure 8. Figure 7 – Communication filters (Klaus, R., 2001, Heinz Goldmann Foundation).
Figure 9. Figure 8 – The three dimensions of strategy – Cooremans (2006)20
Figure 10. Figure 9 – The three dimensions of competitive advantage – Cooremans (2011)21
Figure 11. Figure 10 – Different views on the business model23
Figure 12. Figure 11 – Process mapping (George, et al., 2005:40)24
Figure 13. Figure 12 – Energy services and energy-efficiency measures mapping25
Figure 14. Figure 13 – The impact ladder of good communication. (Klaus, R., 2001, Heinz Goldmann Foundation).

I. Introduction

The goal of the European project M-Benefits¹ is to improve the business case of energy-efficiency measures (EEMs) advised by energy experts² to companies, in order to improve their implementation rate. This can be achieved by including not only the energy benefits but also the non-energy benefits of EEMs in the analyses (made for instance by energy audits); and by communicating these benefits in a convincing way to decision-makers.

The "Toolkit M-Benefits" (hereafter *toolkit* or *toolbox*) includes several tools aiming to facilitate the dissemination and the application of the M-Benefits methodology.

The Toolkit of WP4 includes three main tools:

- Evaluation Tools (WP4.1): analytical tools enabling professionals to include Multiple Benefits (*i.e.* energy benefits and non-energy benefits) in their project evaluations and proposals;
- Communication Tools (WP4.2): tools enabling professionals to present benefits
 of energy efficiency projects to a company Investment Selection Committee, or to any
 other stakeholder, in a way that is attractive to decision-makers;
- **Training Tools** (WP4.3): course material used to train professionals (mainly energy experts) to apply the Evaluation and Communication tools. These educational tools will be used in workshops, webinars and online courses.

This document describes the Communication Tools (WP4.2) which provide effective tips and solutions to energy experts to help them better communicate projects to different decision-makers, in two directions:

- Decisional context (Sub-task WP4.2.1): key aspects to be taken into consideration when conceiving and planning energy-efficiency projects;
- Perceptions and behaviour (Sub-task WP4.2.2): influential and motivational techniques to guide people and organisational behaviour.

These two directions are described in the following sections of the document, after an introduction which briefly describes the M-Benefits Toolkit.

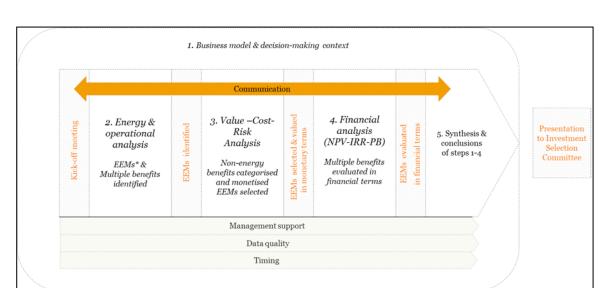
II. M-Benefits Toolkit Overview

The M-Benefits methodology to identify and assess the Multiple Benefits of energy-efficiency measures or projects at company level is an assessment process which takes place in **five analytical steps**. Each step concludes in a **milestone** (*i.e.* the results produced by each step, which are important for the compiled assessment of multiple benefits inside companies):

- Step 1 Business model & decision-making context
 - → Milestone Kick-off meeting
- Step 2 Energy & operational analysis
 - → Milestone Energy-efficiency measures (EEMs) identified
- Step 3 Value-Cost-Risk analysis
 - → Milestone EEMs categorised and valued in strategic & monetary terms
- Step 4 Financial analysis (NPV-IRR-PB)
 - → Milestone EEMs evaluated in financial terms
- Step 5 Synthesis & conclusions

¹ www.mbenefits.eu

² Whether working internally in companies, or externally as ESCOs or Engineering consulting companies.



 $\,\,\rightarrow\,\,$ Milestone - Presentation of the project to the Investment Selection Committee

Figure 1. Figure 1 – Methodology (Toolkit) to identify, categorise, evaluate and quantify the Multiple Benefits of energy-efficiency projects

The Multiple Benefits Methodology is summarized in Figure 1 above. Step 1 includes an analysis of a company's business model and investment decision-making drivers, which is intended to provide understanding of the global stage where the energy-efficiency project will have to take its place. The goal of Step 2 is to identify the energy-efficiency measures capable, at the same time, of securing or improving the company's processes and of decreasing its relative energy consumption, within a predefined boundary. The identification of multiple benefits at the level of energy measures and energy services are analysed in Step 3. The Value-Cost-Risk analysis for the different multiple benefits aims to quantify and monetize various important multiple benefits, whose effect is financially evaluated in Step 4 .

The M-benefits methodology, especially for Steps 2 and 3, often overlaps the current energy audit activity performed by energy consultants or energy managers in most of the EU Countries. It builds upon these results for the case study analyses.

Key resources such as communication, management support, data quality and timing play a very important role in the approval of the energy-efficiency measures by companies' departments.

The following documents compose the Multiple Benefits TOOLKIT:

WP4.1	EVALUATION TOOLKIT		
	Summary of M-Benefits methodology	PPT	
	User Manual on Evaluation	Pdf	
	Resources (generic check-lists - questionnaires)	Excel	
	Case Study Analyses (results)	Excel	
	Monitoring & Control tool (ex-post MBs checking)	Excel	
WP4.2	COMMUNICATION TOOLS		
	Tips and Solutions for an Effective Communication	Pdf	
WP4.3	TRAINING MATERIALS		
	User Manual on Evaluation (same as WP4.1)	Pdf	
	Course material (for teaching the main concepts and tools	PPT	
	underlying MB Toolkit in training sessions (WP5)	Excel	
WP4.4	SERIOUS GAME		
	Software platform		

Figure 2. Table 1 - Multiple Benefits Toolkit Documents

WP4.1 – Evaluation toolkit. The key concepts (1. key resources to the analytical and decision-making process; 2. analytical steps & 3. milestones) which make up the evaluation

methodology are described in the User Manual on Evaluation (pdf), which is summarized in a PPT document. Questionnaires to collect and answer questions related to the evaluation of Multiple Benefits in energy-efficiency projects are available in the form of two Excel documents (Documents "Resources" and "Case Study Analyses").

The Evaluation toolkit includes a Monitoring & Control tool. The objective of this tool is to track progress initially within the pilots and, later on, to compile information from the EEMs that have been implemented. The goal of Monitoring & Control is to check the reality of the Multiple Benefits but also the Evaluation Toolbox itself after EEMs have been implemented (*i.e.* regarding the quantification of MBs, their monetary and financial evaluations, MBs achievements in implemented projects, as well as the influence of the MBs Toolbox on investment decision-making). The corresponding Monitoring & Tool Excel sheet will be included in the RESOURCES & CASE STUDY ANALYSES Excel documents later on, during the Pilot project phase, in collaboration with WP6.

WP4.2 - Communication. Tools useful for effective communication of energy-efficiency projects are described in this document.

WP 4.3 – Training materials. The User Manual (same as that of WP4.1) and its PPT summary are the first training materials developed by WP4. They are completed by Course materials, a PPT describing in more details the key concepts composing the M-Benefits methodology and a financial spreadsheet (Excel) preformatted to make investment calculations.

WP4.4 – **Serious Game M-Benefits** was developed as part of the Multiple Benefits project Toolbox. The serious game is described in the following documents:

M-Benefits Serious Game, 06.02.2019 (author: Dominique Jaccard, HEIG-VD)

M-Benefits Serious Game Trainer Manual, 06.02.2019 (author: Dominique Jaccard, HEIG-VD)

III. Effective communication on energyefficiency investment projects

The goal of the M-Benefits evaluation process is to develop a pitch capable of convincing the top management of a company to approve an energy-efficiency investment project presented by the energy manager (or team) or the energy auditor. Approval does not automatically occur at the end of the evaluation because projects compete for resources and for approval in companies.

In this context, communication is an important resource because it is useful to obtain information about the Multiple Benefits identified and, in the process, to create support within the company for energy-efficiency projects by highlighting their Multiple Benefits. Therefore, communication is key to success, throughout the analysis and conception of projects and, in the final phase of their submission to the Investment Selection Committee.

As shown in Figure 1, communication is important to the evaluation process of the Multiple Benefits of energy-efficiency projects, in two ways:

- It connects the different steps of the analysis, flowing forwards and backwards. Information is collected and analysed at each step of the process but sometimes it is necessary to go backwards to check some pieces of information or to collect additional ones.
- It bridges different groups of people around the energy-efficiency measures identified by the energy experts. People from operations, finance, marketing & sales, strategy, quality, environment, health & safety, etc. are solicited to give advice and information on technical, operational or financial aspects of the project.

Effective communication to different groups of people requires understanding their mindframes and adapting arguments and languages.

The present document is organised as follows: the first part describes the decisional context of energy-efficiency investment projects, focussed around three topics:

- 1 Commodity view organisations;
- 2 Investment decision-making
- 3 Culture(s)

Based on the first part, the second part of the document describes five ways enabling effective communication on energy-efficiency projects:

- 1 Communicate:
- 2 Use framing to be more effective in your communication;
- 3 "Make it strategic"! Raise the strategic character of investments in order to attract interest of powerful decision-makers;
- 4 Take into account cultural differences especially functional and professional differences within (and between) companies and adapt your sales arguments accordingly;
- 5 Start communicating early;
- 6 Reduce uncertainty regarding investment results by taking care of data quality.

Decisional context of energy-efficiency investment projects

1. Commodity view organisations³

"...energy is often seen as a commodity or, more accurately, a collection of commodities. Energy means electricity, coal, oil, and natural gas ... Commodity energy consists of energy forms or energy sources that can be developed and sold to consumers. The commodity view emphasizes the value of choice for present-day consumers and producers. It assumes that such choice will allocate energy (and other commodities) effectively and efficiently. ... It focuses its analysis on the transaction between buyer and seller and away from other aspects of energy use that are external to the transaction"1.

Many business firms and energy experts have a commodity view of energy, as defined by Stern and Aronson (1984). This commodity view refers to the neo-classical economic concept of efficient markets driven by prices: energy is a commodity which rational buyers will try to buy at the lowest price. "Commodity view organisations" will focus on energy supply and procurement, disregarding energy management.

An organisation can be described as a system in which variables interact internally and externally with the environment. The Star Model of Jay R. Galbraith (1995) identifies five main internal variables: structure, processes, people, rewards and strategy.

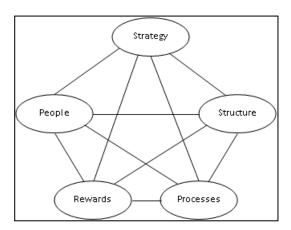


Figure 3. Figure 2 - The Star Model (Galbraith, 1995)

In Commodity View Organisations, energy is at a disadvantage in all respects:4

• **Structure** determines the locus of decision-making power. The highest power has been found to always be within a "core triad of heavyweight functions", the functions of production (or its equivalent in services companies), sales & marketing and finance.

³ Apart from references specifically mentioned in the text, this section is based on Cooremans, 2008, 2011, 2012a and 2012b.

⁴ Cooremans, C. (2008). Overcoming the Commodity View. Strategic and Cultural Dimensions of Energy-Efficiency Investments. In Proceedings of the International Conference on energy efficiency in commercial buildings (IEECB'08), Frankfurt, April 2008.

⁵ Miller et al. (1997:301). Having studied 150 decisions in 30 industrial and services British companies.

These functions are those more closely associated with core business. Together with general management, this coalition imposes its choices upon investment decision—making (because powerful people impose their choices).

The person responsible for energy (who is generally also responsible for building facilities or production) is not a powerful actor in the organisation (with the possible exception of production managers in industrial companies). Energy is part of the physical infrastructure, which is least valued by management; 6 yet it is invisible in physical terms (because hidden in pipes, furnaces, bulbs or computers).

- Processes determine the flow of information and of production of goods and services. Although a vital resource, energy is diluted within information considered more important by the organisation. In accounting terms, energy is a resource of indirect use ("just" enabling equipment and appliances to work); it is included in general expenses (as a cost) and not in the cost of goods sold (as a source of profit). As there is no energy management, energy is also invisible in managerial terms. And we know that an invisible element is easily forgotten (Stern 1992). Sometimes energy is included in the environmental management system, a very restrictive and indirect way to grasp energy issues.
- **People** is a term which refers to the mind-sets and skills of staff. With the exception of production staff in industrial companies, people in dominant functions usually do not have engineering skills or energy awareness.
- Reward system aims to influence people's motivation and behaviour to achieve organisational goals. In Commodity View Organisations, there are no rewards for energy savings achievements. Reward is not included in ISO 50001 Energy Management Systems.
- Strategy sets out the basic direction of the organisation, by specifying the organisation's long-term activities and goals, according to its internal resources and to external factors, in order to build a durable competitive advantage. Core business activities are the main source of competitive advantage, which allows firms to differentiate themselves from the competition, to create financial value and to survive. Competitive advantage is obtained by doing better and/or being less expensive than the competition. In other words, it is the relationship between the perceived value—the value attached to a company's products by its clients (the higher the value, the higher the selling price)—and the production costs. Risk is the third dimension of competitive advantage.

Commodity View Organisations do not consider energy as a strategic resource, because they consider energy's contribution to their competitive advantage as negligible. They don't see risk (such as risk on energy supply). Energy cost is low (as it is the case in most organisations) or considered as necessary to core business activities, and therefore it does not carry much weight. This can be illustrated, for instance, by the fact that more and more shops leave their doors open to encourage customers to come in, thereby heating or cooling the street. Closing shop doors would save money, but would be perceived by Commodity View Organisations as a detriment to core business. Commodity View Organisations cannot see any contribution of energy to their products' value, because they only consider energy commodities and not energy services.

Unfortunately energy experts (the ones following conventional energy analysis methods, not those trained to identify and value the non-energy benefits and strategic value of energy-efficiency projects) often share the same commodity view of energy (see p. 9) as their client organisations: they only point to cost reduction entailed by technical equipment and systems improvements, without looking for and highlighting the other numerous benefits of energy-efficiency investments.

⁶ Hammer (2004); Teece et al. (1997).

2. Investment decision-making

"Kicked off by researchers at Purdue and Harvard, but especially catalyzed by Michael Porter's book in 1980, the economics approach to strategy focused on industry structure, competitive dynamics, pricing, capacity decisions, vertical integration, and so on. There was no attention to managers. But in this instance, it wasn't because managers were deemed unimportant, but rather because they were presumed to be fully capable of figuring out all this neat economic stuff and arriving at the "right" strategic solution. My behaviorally oriented strategy friends and I used to joke that you could always tell if a case had been written by Mike Porter: it didn't have any people in it."

Donald Hambrick, cite par Cannella, A., "Upper Echelons: Donald Hambrick on Executives

Strategic importance is the first investment decision driver, before profitability. An issue perceived as non-strategic, *i.e.* as non-core business, will be undervalued and disregarded. As non-strategic, investments cannot win the competition for financial resources, for the time and support of powerful heavy-weight functions, or for political support and direction of upper management.

Powerful people get what they want and, therefore, **organisational choices reflect the preferences of powerful people**. These central ideas of the political perspective on organisational decision-making are now solidly established by research findings⁷. Investments considered as non-strategic lose the competition against other investments and will not be decided upon.

Yet projects are not objectively assessed as strategic or non-strategic by companies, they are interpreted. The same investment project can be perceived as more or less strategic by different decision makers and organisations. The cognitive perspective on strategic decisions tells us that issues are perceived as non-strategic not for some "good objective" reasons (for example, the low cost of energy for a company) but for subjective reasons, which are related to decision makers' cognitive frames. The same can be said about investment parameters: risk is a subjective notion depending on decision-maker's perception and personality; assessment of future energy prices also depends on decision makers' cognitive frames.

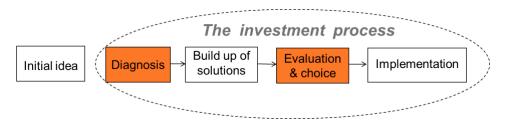


Figure 4. Figure 3 – The investment process (Cooremans, 2012)

As shown in Figure 3 above, a decision is only a step in a decision-making *process*, which comprises three phases: identification (diagnosis), development (build-up of solutions), and selection (evaluation of the different solutions and choice, *i.e.* the decision made). Three selection choices are possible: positive decision (the investment project is accepted), negative decision or no-decision.

At the very beginning of the decision-making process, **issue diagnosis** assesses and categorises new ideas, data, events or projects. Yet initial ideas or projects in the diagnosis

⁷ As shown by Eisenhardt & Zbaracki (1992) in their extensive review of the literature.

phase are not objectively assessed by companies. They are interpreted —"infused with meaning" (Dutton and Jackson 1987)—at the individual and organisational levels.

At individual level, information is distorted during the diagnosis process by **filters**: *heuristics*⁸ and cognitive biases, these "hidden decision's traps" (Hammond et al. 2001) common to all individuals. The influence of heuristics and cognitive biases always distorts information in the same way: **managers unconsciously search for information supporting views, beliefs, or hypotheses that they already have. Moreover, managers' personal pre-existing knowledge systems act as filters⁸ of organisational events.**

At the organisational level, the organisational context, which comprises structure, strategy and culture, influences how decision makers understand and interpret issues and make decisions. The meaning attributed to the same event, and the type of reaction to this event, will therefore be different from one organisation to another.

The external context also influences issue diagnosis and decision-making. The external context refers to the organisation's environment. Its main components are competition moves, demand, social evolutions, regulation, the general economy, and technological progress. However, to reiterate, an **organisation's environment is not given**, **it is interpreted** and "built" by actors' vision and by **organisational filters** (corporate culture, routines, and control systems). Therefore organisations "invent the environment to which they will respond by deciding which aspects of the environment are important or unimportant".9

Of course, there are interactions and mutual influences between the individual and organisational levels: organisational context controls managers (through routines, management systems, or strategic priorities), but managers influence organisational context.

The **diagnostic phase is crucial in two ways**: first, it translates—or not—an initial idea into a "decision event" which will thus be processed; second, it influences the subsequent phases of development and choice.

The decision-making process is not as smooth and linear as shown in Figure 3, above. On the contrary, it is generally cyclical and uneven, with feedback loops, pauses, and dead ends. It is only linear and sequential in the case of highly structured decisions¹¹, based on readymade solutions.

Structured decisions are familiar, repetitive, programmed while unstructured decisions are complex, new and unprogrammed. *Unstructuration* means that *a new solution has to be designed instead of using an existing ready-made one*. Therefore, unstructuration means a high level of uncertainty and, in turn, a longer and cycling decision-making process. Business managers' lack of trust in data quality is commonly cited among chief impediments to decision-making". The same can be said about the lack of consideration for non-energy benefits in the analysis of energy-efficiency investment projects: lack of (quality) data is generally cited as the major obstacle. It may be more difficult to achieve a satisfying data quality in the case of unstructured decisions.

Apart from strategic character and unstructuration, other investment characteristics influence the outcome of organisational competition between investment projects, such as: investments importance to the organisation; their complexity, the level of organisational change they would entail, the number of actors involved and the stimuli evoking them (threat or opportunity, level of urgency) and the available solutions (ad hoc or ready-made, internal or external).

Energy-efficiency investments are considered as non-strategic by most companies. In addition these investments are often "unstructured", especially when they involve important changes in buildings or

⁸ Defined as rules of thumb, shortcuts, routines, which decision-makers use to simplify complex problems.

⁹ As described by Lyles (1987: 266), with reference to Weick (1979).

¹⁰ Dutton et al. (1983).

¹¹ Herbert Simon (1959).

 $^{{}^{12}\,\}underline{https://search data management.techtarget.com/definition/data-quality}$

production systems, or because energy savings are not clear-cut, or because energy prices are unstable or difficult to predict.

As illustrated in Figure 4 below, **decision-making is "a complex network of issues involving a whole host of linkages**, more or less tightly coupled. Periodically decisions emerge from this network, or at least actions, driven by insights as well as various affective factors in addition to the cerebral rationalities of the actors"¹³.

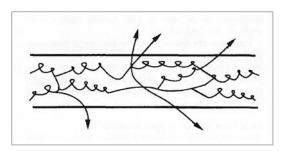


Figure 5. Figure 4 – Organizational Decision Making as Interwoven, Driven by Linkages (Langley, Mintzberg, Pitcher, Posada et Macary, 1995:275).

There are different types of linkages between decisional issues. Decisions may be linked **sequentially**, in the case of different decisions concerning the same issue at different points in time, or between various levels of decision activities associated with the same broad issue, **precursively**, when a decision on one issue can critically affect the premises for subsequent decisions on a variety of other issues, and **laterally** across different issue streams.

Issues do or do not generate organizational decisions¹⁴. In Figure 4, decisions are illustrated by arrows coming out of issue streams. But Figure 4 not only shows that topics are connected to each other within the organisation, it also shows that some issues do not come out of the flows (thus becoming decisions): they remain at the stage of **non-decision** (*i.e.* no decision is made). Non-decision, which should not be confused with negative decision, is often the result of energy audits.

In summary, decision-making is influenced by the intensity and type of the relationship between decisions and by the type of organisation in which it is embedded.

3. Culture(s)

As "a pattern of shared basic assumptions" or as a "normative system of values and ideas" corporate culture is one of the most powerful filters influencing companies' behaviour. Corporate culture refers to core values, *i.e.* those considered as

¹⁵ The complete sentence to define corporate culture is "A pattern of shared basic assumptions", taken-for-granted perceptions, thoughts, and feelings, which are unconscious and therefore non-confrontable." (Schein, 2004)

¹³ Langley, Mintzberg, Pitcher, Posada, Macary (1995:275).

¹⁴ Idem:276

¹⁶ "Culture is an organisational scheme, mainly composed of values which are more or less shared, more or less consciously, by organisation members. It is a normative system of ideas, ultimately shaped by the actors involved themselves; thus culture is created, maintained and transformed by individuals who, themselves, have schemes, some of those being of a normative nature, *i.e.* composed of these individuals' personal values. This organisational scheme of culture is in close relationship with other organisational schemes, even if the influence of one scheme on another goes through individuals... The concept of culture almost always refers to values, defined as what is desirable in a given spatio-temporal context". Cossette (2004:121)

[&]quot;Exploring culture can be compared to exploring the ocean. On the surface, riding the waves, we can observe artifacts, rituals, and behaviour. These provide clues as to what lies underneath. But to verify this, one has to look below. That means asking questions to discover the reasons the values and beliefs which are given to explain that behaviour. But further down rest the underlying assumptions which are difficult to access and need to be inferred, through interpretations" (Schneider and Barsoux, 2003:18).

priority values by the members of the organisation. As such, it has been described as a "paradigm" or as a "dominant logic" ¹⁷.

However, **culture is not monolithic**, either at an organisational or an individual level. Corporate culture is not the only culture influencing actors' values, beliefs and behaviours, since it interferes with other (sub-) cultures which influence interpretations and behaviour of individuals and organisations.

Schneider and Barsoux (2003) show how six "interrelated spheres of culture" influence how decision-makers, as well as any organisation's members, perceive the world around us, and interpret issues, data or events. These cultures are the national, regional, professional, functional, business sector and corporate cultures. Figure 5 below illustrates these six spheres of culture.

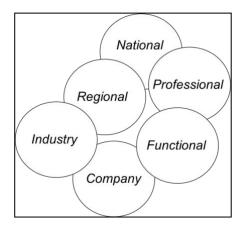


Figure 6. Figure 5 – Interacting cultural spheres of influence (Schneider and Barsoux, 2003:47)

Corporate culture brings together (more or less, depending on its strength) other cultures present in the organisation, but it does not undercut them. The more the content of these spheres of culture is similar between the members of the organisation, the more their perceptions and ways to interpret issues or events will be similar. Conversely, **cultural differences create informal borders between groups** within an organisation, with different cognitive schemes and, thus, different ways to perceive their environment and to respond to it. Mental frames of decision-makers influence how they make decisions.

Regarding energy use or energy efficiency, corporate culture is also important in two respects: it determines which professional culture is most powerful inside a company; it determines the importance assigned to energy issues.

The concept of mental frames explains why information alone is not enough to change behaviour: it has been proven that people retain only the information supporting the views, beliefs or hypotheses they have long cherished ¹⁸. This means that information alone on strategic aspects of energy use or on energy-efficiency investment benefits will not enable the switch from "Commodity-View" to "Strategic-View" decision-makers.

Professional and functional cultures are probably highly influential regarding energy issues perceptions. It is likely that people assuming technical functions in an organisation (*i.e.* technical support department, facility management, production) and/or people with a "technical" education (like engineers) will be more energy-aware than, say, finance or commercial people, as their professional culture induces them to have technical systems working efficiently.

Because of these differences, communication between professionals is often a challenge. However, in order to create interest, understanding and, ultimately

¹⁷ Johnson, 1992 and Bettis and Prahalad, 1995.

¹⁸ Mintzberg, Ahlstrand, Lampel, 2005; Giordan, 1998.

commitment within companies on energy issues, communication is indispensable but it has to be effective communication. The next chapter gives insights for effective communication.

Tips and solutions for effective communication

"When it comes to designing things in our physical world, we all understand how flawed we are and design the physical world around us accordingly... We understand our physical limitations, and we design steps, electric lights, heating, cooling, etc., to overcome these deficiencies. Sure, it would be nice to be able to run very fast, leap tall buildings in a single bound, see in the dark, and adjust to every temperature, but this is not how we are built.

What I find amazing is that when it comes to designing the mental and cognitive realm we somehow assume that human beings are without bounds. We cling to the idea that we are fully rational beings, and that, like mental Supermen, we can figure out anything".

Ariely, D. (2009). Predictably irrational: The hidden forces that shape our decisions. 2nd Ed. Harper Collins publishers, London, p. 327.

1. Communication: creating shared understanding

Early theories of communication define it as an "effective transfer of information". It is a mechanical view of information: according to this view, a sender sends a message to a receiver and the message is received by the receiver without distortion. This is the **transmission model of communication**. It is a very attractive model, because it suggests that communication is objective, something that both the transmitter and receiver will understand in the same way, as shown in Figure 6 below. Like a parcel sent by the post which arrives in a perfect shape, its content untouched.

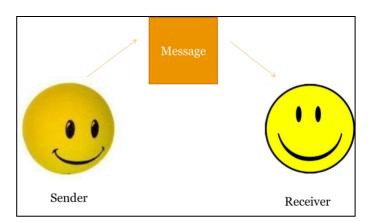


Figure 7. Figure 6 - The transmission model of communication (simplified)

However, **communication begins not with transmission but with reception**. The sender can deliver a message unconsciously, but effective receipt is vital to communication.

This was highlighted in theories of consumer behaviour¹⁹. This is why it could be said that the receiver is "de facto, the creator of any message.²⁰

No matter how effectively information is transmitted, **three basic communication skills**²¹ are necessary for the receiver to receive it. The receiver has to:

- 1. Pay attention. The act of paying attention is the first essential step of communication. Therefore, the sender has to find a "hook" to get the attention of the receiver. This can take the form of a story telling or of describing in a clear way the Initial Benefit Promise (IBP). IBP is what a meeting, a presentation or a project intends to bring to the message receiver. Of course, the IBP is different depending on the audience.
- 2. **Understand**. Understanding is an active pattern-matching process. We create meaning by matching what our senses pick up to mental patterns inside our brains (for instance a sign on the road has a meaning because we already have that sign in our head). In other words, we provide the mental patterns that complete the information and give it meaning. If the information is—as is often the case—incomplete or ambiguous, we fill in the gaps, in a process called perceptual completion. "Perceptual completion shows that everything we understand is a best guess of what is there". ²² This is discussed in the Sections Investment decision—making and Cultures (see p. 11 and 13), the way we understand or, in other words, the meaning given to an event or a message in the perceptual completion process will be influenced by culture(s).
- 3. Put what she/he understands in context. A good example of putting information in context is given by Alan Barker²³: "That loud siren in the office might be an emergency; but you've probably learned that it often sounds as a test, and sometimes by mistake. Understanding the context when you hear the siren helps you decide whether or not to head for the fire exit."

The definition of the transmission model of information, which views communication as an effective transfer of information, must be replaced by something more accurately representing what happens in the reality. Since what we want to communicate is far less important than what the other person understands, communication **can be defined as the process of creating shared understanding**²⁴.

A common understanding is not easy to obtain between sender and receiver, since several types of filters may alter the content of a verbal message, as represented in Figure 7 on the next page. Filters can be related to the mind of the sender and the receiver, such as concentration, mentality or the influence of norms or emotions; filters can be physical, such as the quality of voice or of hearing. Finally, filters can be related to obstacles around the sender and receiver, such as noise, distance or technical problems.

¹⁹ Décaudin (1997:3377).

²⁰ L. Thayer (1968, 1979), cited by Décaudin (1977:3377)

²¹ Barker (2016:3)

²² Ibid, p. 5.

²³ Idem.

²⁴ Idem.

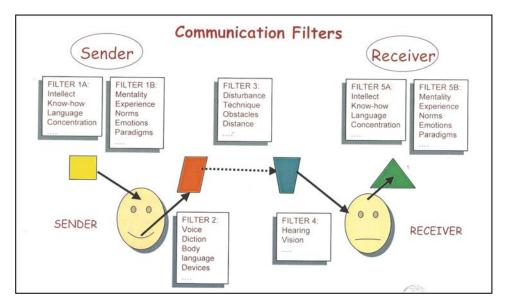


Figure 8. Figure 7 - Communication filters (Klaus, R., 2001, Heinz Goldmann Foundation).

Several findings of psychology contribute to better explain the **importance of the** source/sender in the understanding of the message by the receiver²⁵:

- The **attractive nature of a source** causes a desire of identification between the receiver and the latter. A source may be attractive if it is familiar to the receiver (psychological and affective proximity), similar to the receiver (self-recognition) or seductive (ability to be appreciated by the receiver).
- The **credibility of the source** generates internalization of the message by the receiver. The credibility of the source is obtained when the receiver recognizes this character, attributes it to the source and places its trust in the source, deemed reliable, competent and sincere.

Other findings of psychology contribute to better understand the **importance of the receiver in the perception of the message**:

- Cognitive dissonance. When an individual receives a message challenging a behaviour or attitude²⁶ on an important and valued subject, there is cognitive dissonance. The main reaction is for the receiver to flee the message and its source and to justify the value system contested by the message. The flight can take various forms such as discrediting the source, or inventing new justifications, new arguments justifying the old values. It is quite exceptional that someone agrees to question her/his value system.
- Cognitive biases can be defined as a distortion (systematic distortion from a norm) of information, when going in or out a cognitive system. In the first case, the subject makes a selection of information, in the second case, she/he makes a selection of answers"²⁷. Their influence is generally hidden, which makes them dangerous for the quality of decision-making.
 - Cognitive biases are common to all individuals. There are many cognitive biases which may influence investment decision-making. Here are some of them:
 - > Selective attention. As mentioned in the previous section, the attention of the source can only be selective, because of the multiple demands of everyday life. Professional, social and personal ways of communication are numerous and individuals are unable to manage all messages both in terms of quantity and content. In the end, only a few

²⁶ "Attitudes are people's ideas, convictions or tastes and behaviour is what people are doing". (Schneider & Barsoux 2003:22).

²⁵ Décaudin (1997: 3377-3378)

²⁷ Freely translated from : "une distorsion (déviation systématique par rapport à une norme) que subit une information en entrant dans un système cognitif ou en en sortant. Dans le premier cas, le sujet opère une sélection des informations, dans le second, il réalise une sélection des réponses" (Le Ny, 2002).

- stimuli are actually perceived by the individuals, the others are filtered out. People often pay attention only to what they want to perceive, and either the information strengthens their convictions or it is relevant to a felt need.
- ➤ Ambiguity effect is a cognitive bias that occurs when decision-making is affected by a lack of information, or "ambiguity". The effect implies that people tend to select options for which the likelihood of a favourable outcome is known rather than an option for which the likelihood of a favourable outcome is unknown.
- ➤ Level of control over the results of the action has also emerged from research as an essential element, not only of the perception of the strategic nature of an issue,²⁸ but also as playing a key role in triggering a strategic action.
- Confirmation bias is the tendency to search for, interpret, focus on and remember information in a way that confirms one's preconceptions.
- **Status quo.** The tendency to like things to stay relatively the same, because when we act we take risks, and we expose ourselves to negative consequences (actually, this is also true when we do not act, but this is a less powerful trigger because of the status quo bias).
- Cognitive schemes²⁹ of decision-makers. Unlike cognitive biases, cognitive schemes are **specific to each decision-maker**, **depending on her/his personal experiences**, **values and personality**. Cognitive schemes affect decision-makers' through three distinct interpretative processes: 1) the direction they look and listen (their field of vision), 2) what they actually see and hear (their selective perception), 3) how they attach meaning to what they see and hear (their interpretation).³⁰ Because of the permanent and unconscious influence of cognitive schemes, decision-makers approach the decisional issues in a personal and intrinsically biased way, most often applying to the new problems solutions derived from their past experience. Cognitive schemes can thus be described as "a priori understandings,³¹ as a lens through which decision-makers interpret the world and react to it.
- Cognitive schemes act as filters in data collection, classification and interpretation. Through this process of selection and interpretation of data, some of which are perceived as important and others as negligible, the cognitive patterns of decision-makers influence the form and trend of strategic diagnosis and, ultimately, the decisions made: "how they interpret it determines the way in which they will respond to it".32

2. Influencing organisational behaviour

Integrating the context of energy efficiency investment projects and the key aspects of communication, this section describes some useful techniques to influence and motivate behaviour towards a more efficient energy use.

Key points to be addressed when communicating around and on energy-efficiency projects are the following:

- 1. Communicate!
- 2. Use framing to be more effective in your communication
- 3. "Make it strategic". Raise the strategic character of investments in order to attract interest of powerful decision-makers.
- 4. Take into account cultural differences—especially functional and professional differences—within (and between) companies and adapt your sales arguments

²⁸ Thomas, et al., 1993, Dutton, et al., 1989.

²⁹ "Système référentiel, "système de croyances" constitué de règles ou de généralisations qui structure la façon dont un individu appréhende la réalité (Cossette, 2004, p. 48).

³⁰ Hambrick (2007:337).

³¹ Dutton, et al. (1983: 118).

³² Schwenk (1989:183)

accordingly.

- 5. Start communicating early.
- 6. Reduce uncertainty regarding investment results by taking care of data quality

We will treat these different aspects successively.

2.1 Communicate!

From the very beginning of your projects, *i.e.* at the step of the initial idea, exchange with people, get to know each other.

Communicate not only with people with background on energy and technical issues but also with people from other departments. Remember, CEO, operations, production, marketing & sales, and finance are the most powerful departments: those which influence decisions regarding resource allocation.

A good excuse to get in touch with these people is the fact that you need information. But, when doing so, remember that people are often extremely busy: have your questions prepared and explain why you need information from them. Keep It Simple (KIS) and clear.

Keep asking yourself:

- "What effect am I having on the other person?" The effect we have on another person is what we communicate to them and what we want to communicate is far less important than what the other person understands³³.
- What is your Initial Benefit Promise? What's in it for them?

2.2 Use framing and influence techniques to be more effective in your communication

Framing refers to techniques used in communication or negotiation to be more effective. Here are the most important of them:

- Losses loom larger than gains.³⁴ You will be more influential if you present your project as a means of reducing costs or losses, than as a way to increase gains or profit. Ask yourself, and your audience: what will happen if this project is *not* implemented. An example of the right framing in this regard would be: "by failing to implement this project, your company will lose X euros per year and increase its risks".
- Use an appropriate reference, benchmark or unit of measure that best enhances the value of what you are offering. An example of this framing technique is to say that asking your boss for a raison of € 500/month may be more palatable than asking for € 6000/year. In the case of energy-efficiency projects, this also means adapting your reference or unit of measure to your audience: companies' energy managers will be sensitive to the energy-saving argument, but not the operations or marketing & sales people.
- A picture (or a metaphor) is worth a thousand words, and easily evokes emotions or attitudes that can influence the outcome or a sale or of a negotiation. Identify picturesque language and concrete examples that evokes positive attitudes and a desire to minimize losses.

Influence techniques are based on psychological research findings 35 . These techniques are used by marketers but also by social marketers.

• Consistency and commitment. People have a desire to look consistent within their words, beliefs, attitudes and deeds, to prevent cognitive dissonance (see p. 17) and also because 1) "good personal consistency is highly valued by society; 2) consistent conduct provides a beneficial approach to daily life; 3) a consistent

³³ Barker (2016:7).

³⁴ Kahneman, D., & Tversky, A. (1979)

³⁵ If not otherwise indicated, the influence techniques described here come from Cialdini, R.B. (1985). Influence. Science and Practice. Scott, Foresman and Company, Glenview; summary notes https://edoc.pub/queue/influence-cialdini-pdf-free.html

orientation affords a valuable shortcut through the complexity of modern existence: by being consistent with earlier decisions, one reduces the need to process all the relevant information in future similar situations.

The key to using consistency pressures for profit is the **initial commitment**: after making a commitment (that is taking a stand or position), people are more willing to agree to requests that are in keeping with the prior commitment. Commitments are most effective when they are **active**, **public**, **effortful**, **and viewed as internally motivated (uncoerced)**. Once a stand is taken, there is a natural tendency to behave in ways that are stubbornly consistent with the stand".

- Social proof. People view a behavior as more correct in a given situation to the
 degree that they see other performing it. "The principle of social proof can be used
 to stimulate a person's compliance with a request by informing the person
 that many other individuals (the more, the better, the more famous" the better) are
 or have been complying with it".
 - The same technique is applicable to organizations (operating in the same industry and serving the same customer segments), because "organisations imitate other organisations, ... [according to] a pattern not totally unlike imitation among individuals"³⁶.

Social proof is most influential under two conditions: 1) uncertainty (when people are unsure, when the situation is ambiguous, they are more likely to attend to the actions of others and to accept those actions as correct); 2) similarity (people are more inclined to follow the lead of similar others).

• Liking. People prefer to say yes to individuals they know and like. One factor that influences liking and compliance is similarity. We like people who are like us and are more willing to say yes to their requests, often in an unthinking manner. Another factor that produces liking is praise; compliments (if not crudely transparent) generally enhance liking, and thus, compliance. Increased familiarity through repeated contact with a person or thing is yet another factor that normally facilitates liking.

2.3 Make it strategic: energy efficiency and core business

"Strategy sets out the basic direction of the organization, by specifying the organization's long-term activities and goals, according to its internal resources and to external factors, in order to build a durable competitive advantage" 37.

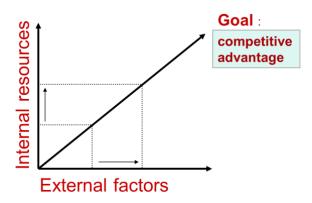


Figure 9. Figure 8 - The three dimensions of strategy - Cooremans (2006)

In other words, strategy consists of finding the right fit between internal resources and external factors in order to build durable competitive advantage, through resources allocation. Internal resources include financial, physical, human, technological, organisational and reputational (corporate image) resources; external factors refer to

³⁶ Stern et Aronson (1984:114).

³⁷ Johnson and Scholes (1999:27).

competition moves, demand and society evolution, supply, regulation and technology. Figure 8 illustrates the three dimensions of strategy, and the necessary fit between them.

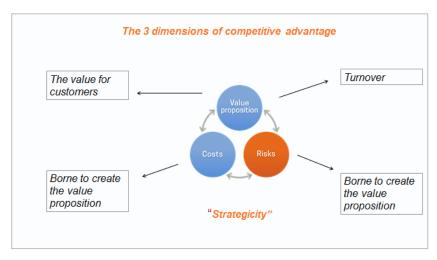


Figure 10. Figure 9 - The three dimensions of competitive advantage - Cooremans (2011)

As illustrated in Figure 9, competitive advantage is a three-dimensional concept, formed of three interrelated constituents: costs, value, and risks.³⁸

According to Michael Porter, who proposed the concept of competitive advantage in 1980³⁹, there are **three "generic" strategies**, which can be applied to any type or size of business, to create sustainable competitive advantage: cost leadership, differentiation or focus⁴⁰.

Cost leadership means offering the lowest price to customer compared to competition. Of course, to be able to offer low selling prices, companies must have low operations and administrative costs. Since the cost of energy is low for many companies, it cannot significantly contribute to a cost leadership strategy. Even in energy-intensive companies, the energy cost is an important decision-driver only if cost leadership is a compulsory competitive strategy (meaning that competition within the industry is based on prices). If not, firms, even energy-intensive ones, may neglect energy cost reduction opportunities because corresponding investments are not considered as strategic enough or because they are less strategic than other investments.

Differentiation means for a firm differentiating itself along dimensions valued by customers. Differentiation will thus increase demand and will enable the firm to ask a higher price to customers. "Firms often deliberately raise their costs in order to command a premium price *via* differentiation"41. In this case, obviously, lowering energy cost—the energy benefit of energy-efficiency investments—does not contribute to differentiation.

But the non-energy benefits of energy-efficiency measures often significantly contribute to competitive advantage by positively contributing to dimensions valued by customers in a company's value proposition and by reducing operations and administrative costs.

Here are a few **examples** of this reasoning, for commercial or industrial activities, which implies thinking in terms of energy services (and using well-known technical solutions):

- Car parks must offer their users' security (no physical aggressions) and air quality. Energy can contribute to this through high lighting levels and good ventilation. Therefore, energy experts have to "sell" these services in their energy-efficiency projects, even before discussing energy consumption and cost reduction.
- A primary function of a bank nowadays is to store, manage and supply information in a
 highly secure way. Energy specialists have to select energy-efficient solutions capable of
 improving communication reliability and security.

³⁸ According to Cooremans (2011).

³⁹ with two constituents only: value and costs.

 $^{^{40}}$ The Focus strategy means for a company offering its products to selected segments of the market, i.e. to niche markets. We will not discuss this strategy here since it is out of the scope of this document.

- **Pharmaceutical laboratories** need a stable temperature to test new drugs, whatever the conditions outside the room or the building. Energy experts have to find out how energy-efficient solutions can stabilise indoor temperature as well as reduce energy consumption.
- The watch industry needs stable hygrometry and a low level of dust. Energy experts have to find out and demonstrate how energy-efficient solutions can achieve that.

"An investment is strategic if it contributes to creating, maintaining or developing a sustainable competitive advantage".

Strategic logic—*i.e.* contribution to competitive advantage—prevails over financial logic in investment decision-making. Therefore, in order to promote energy-efficiency investments as strategic opportunities, it is necessary to find out and emphasise how these investments can improve or strengthen a company's competitive advantage.

This means helping businesses to perform their activities more efficiently, or to perform them in a less risky way, or to develop a more convincing value proposition to their customers. Therefore, **contribution to a company's value proposition increase**, **cost decrease and risk decrease** must be analysed and valued to assess the strategic character of an investment.

This is the approach developed by the Multiple Benefits project, along Steps 1-3 of the methodology (see the Evaluation Toolkit User's Manual on analytical steps and milestones).

2.4 Take into account cultural differences and adapt your sales arguments

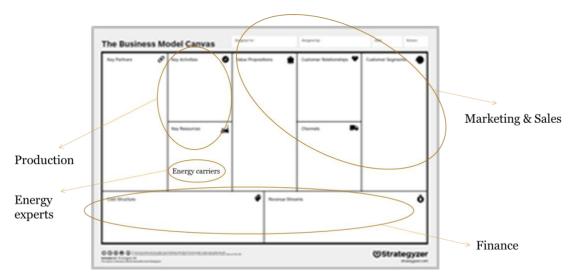


Figure 11. Figure 10 - Different views on the business model

The Strategizer's Business Model Canvas⁴² describes a business model in nine basic building blocks: customer segments;, value propositions, channels (to reach customers), customer relationships, revenue streams generated, key resources and key activities required to create value; the key partners and the cost structure of the business model ⁴³.

- Customer segments "are the groups of people and/or organizations a company or organisation aims to reach and create value for with a dedicated Value Proposition".44
 Customer relationships refers to the style of relationships a company's establishes with its customers: for instance mass or customized communication, personal service, etc..
- Value propositions "are based on a bundle of products and services that create value for a Customer Segment" 45. Value is intended here as a value of use, which consists of all the benefits that the customer derives from the use of the products or services of a company. Channels bring the value proposition(s) to customers.
- Activities are the most important actions or functions that a company must perform in order for its business model to work: for example, buying raw materials or production.⁴⁶
- Resources consist of the most important assets that are needed for the business model to work, so the company can create, produce and deliver its value proposition(s), maintain relationships with its customers and generate revenues.
- Cost structure "describes all costs incurred to operate a business model".47.
- Revenue streams result from a Value Proposition successfully offered to a Customer Segment. It is how an organisation captures value with a price that customers are willing to pay.⁴⁸
- **Partnerships** describe who does a company's need to make its business model work, or to increase the scalability and efficiency of the business.

https://www.youtube.com/watch?v=MxgqrDv7goI

 $^{^{\}rm 42}$ A very good description of the Business Model Canvas is given at

⁴³Please have a look at this website where a video (2.2 minutes) summarize the Business Model Canvas https://www.strategyzer.com/canvas/business-model-canvas

⁴⁴ Business Model Canvas (2015:24). Why and how organizations around the world adopt it. A field report from Strategizer. https://assets.strategyzer.com/assets/resources/business-model-report-2015.pdf
45 Idem.

⁴⁶ NB: The activities analysed here should not be confused with the "activity" of a company (the products or services that a company produces in a certain sector).

⁴⁷ Idem.

⁴⁸ Idem.

As illustrated in Figure 10, the business model canvas helps us understand that **companies' staff members will not look at the same parts of the business model according to which department they work**: Production people will mostly look at key resources and activities; Marketing & Sales will consider customer segments, value propositions, communication and channels; Finance will focus on costs and revenues. CEOs are the only ones to have a global vision on a company, but this supposes moving away from details and taking a "helicopter view". They will also address the company's global strategy and development. Conventional⁴⁹ energy experts have a strong tendency to only consider energy carriers (*i.e.* electricity gas, fuel oil or pellets), a resource which is not perceived as key by most companies' staff members.

As described in the previous chapter (please see p. 13), **cultural spheres of influence** create particular mental schemes within people minds. Different professionals and functions not only look at different parts of the business model, they apply different concepts, use different methods and tools, and speak different languages. Cultural differences – especially functional and professional differences – within (and between) companies must be taken into consideration to develop customized -and convincing- sales arguments. In other words, each manager must be able to answer the question: "what's in it for me?".

To adapt to different professional and functional lenses and to be approved, investment projects must be presented under different angles, using different analytical tools and languages.

Production people analytical tools and languages: process mapping

Production people vocabulary and lenses include production process and the key parameters and resources ensuring its quality, reliability and flexibility.

A **process** can be defined as "a sequence of operations connected to each other, producing (or reproducing) results"⁵⁰ or as "a tool allowing different actors to cooperate on a common objective: to deliver to the customer a product or a service".⁵¹ The process **customer** can be an internal customer (for instance the next process in the value chain) or the final buyer or user of the product or service.

The most common and useful tool to analyse a process is **process mapping**. Process mapping consists of identifying all steps (and/ or substeps) forming the process and representing them in a chart. A process map is a helpful tool not only to represent a process but also to gain a critical perspective on it. A good process map must have carefully defined **boundaries** (the process supplier and process customer). An illustration of process mapping is given by Figure 11, below.

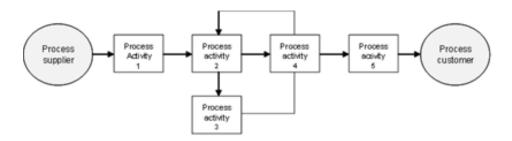


Figure 12. Figure 11 - Process mapping (George, et al., 2005:40)

In process, production people look at operational excellence which can be described as "the search for perfection within the framework of the defined characteristics; it is about "doing

⁴⁹ Conventional as opposed to Multiple Benefits energy experts.

⁵⁰ Livian 2000:93.

⁵¹ Caseau 2011:20.

well the first time", aiming at zero-defect, zero-delay, zero-stock, zero-paper, zero-returns".52

Operational excellence is composed of **four broad interrelated dimensions**: **safety** (of staff), **quality** (of products and processes), **costs** (borne to produce and deliver a company's value proposition), **time-to-market**.

Some parameters are critical for the process; these are the CTQ (critical-to-quality) parameters. A CTQ parameter is defined as any characteristic of a product, process, or service that satisfies a key customer requirement or a key process requirement. This implies that, if this parameter is not respected, the customer will not be satisfied, or the process will not be accomplished properly. The CTQ parameter must be measurable to have operational utility. Speed, accuracy, timeliness, costs, are examples of product or process characteristics that can be measured and used as CTQ parameters.

Energy-efficiency investment projects often have a positive impact, which must be analyses and clearly emphasized, on the following **process resources**:

- Workforce
- Machines
- o Production space
- Production time
- o Raw materials
- Consumables
- o Energy services
- o Management systems

In order to integrate energy analysis into production/ operations analytical tools, the Multiple Benefits methodology suggests to complete the process mapping, by adding into the analysis energy services, the energy-efficiency measures identified (for instance by an energy audit) and the benefits other than energy benefits which energy-efficiency measures bring to the company. This integration of production and energy analyses is shown in Figure 12.

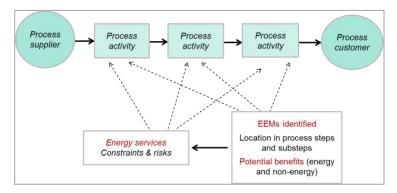


Figure 13. Figure 12 – Energy services and energy-efficiency measures mapping

This analysis, integrating energy and production views on process, enables to highlighting the key contribution of energy services and energy-efficiency measures to process quality, safety and flexibility, thus raising interest and motivation of production people (indifferent otherwise to energy savings) regarding energy-efficiency projects.

Strategy people analytical tools and languages: competitive advantage

One central concept for strategy people is **competitive advantage**. Competitive advantage (see p. 20) is made of three interrelated constituents: value -i.e. the **value proposition**(s) developed by a firm for its customers or customer segments- **costs**, i.e. the

^{52 (}Collignon 1997:2784). We have freely translated from the original: "la recherche de la perfection dans le cadre des caractéristiques définies; il s'agit de "faire bien du premier coup", de viser le zéro-défaut, zéro-délai, zéro-stock, zéro-papier, zéro-retour".

operations and administrative costs borne to create and deliver the value proposition(s) and risks, *i.e.* the risks borne to create and deliver the value proposition(s).

To raise the awareness, interest and support of strategy people in energy-efficiency projects, it is necessary to identify and highlight the **contribution of these projects** to these three dimensions. This means to demonstrating how energy-efficiency –often through better and more reliable energy services- can contribute **to value proposition increase**, **cost decrease and risk decrease**.

This means going far beyond the conventional energy-saving selling argument. In this regard, it is also important to remember that companies often privilege differentiation (through a more convincing value proposition) on cost leadership.

Finance people analytical tools and languages: investment cash-flows, net present value and internal rate of return

Finance people aim to assess the **profitability** of investment projects. This means, first, evaluating an investment's **in and out cash-flows** over a certain number of pre-defined years (*i.e.* the investment duration) and, second, to assessing its profitability or financial attractiveness, by using the **three basic finance assessment methods**: Net Present Value (NPV); Internal Rate of Return (IRR) and Pay-back Time (P-B).

To evaluate the Net Present Value of an investment, a **discount rate** is applied. The discount rate reflects the global cost of capital for a company (*i.e.* the Weighted Average Cost of Capital, WACC). Thus the discount rate (as the investment duration) **will be different from one company to another**. The discount rate is also different **from one project to another** (the higher the strategicity, the lower the discount rate), and on its perceived level of risk (the higher the risk, the higher the discount rate).

There is competition between investment projects, not only in strategic terms but also in financial terms. Projects are assessed in comparison to each other during the capital budgeting process. It is not enough for an investment project to be profitable, it has to be more profitable than other project and, above all, it has to contribute more significantly to competitive advantage to win the competition. In this competition, energy savings have very little weight.

2.5 Start communicating early

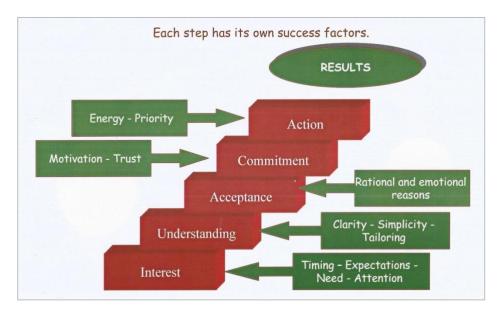


Figure 14. Figure 13 – The impact ladder of good communication. (Klaus, R., 2001, Heinz Goldmann Foundation).

As shown in Figure 13, getting support for an idea or a project takes time. Support grows gradually in different stages, which form a **communication ladder**: interest, understanding, acceptance, commitment and, finally, action.

As we have seen in the section on communication (see p. 15), communication means creating shared understanding. **Shared understanding** is key to acceptance and, eventually, commitment.

In the investment decision-making process, commitment is made by the Investment Selection Committee when making a positive decision⁵³ about an investment project. The time allocated to present a project before the Committee is very short: most often it does not exceed 20-30 minutes, usually too short a time to generate commitment if a project is unknown to the Committee's members. Therefore, **interest**, **understanding and acceptance must be obtained well before the Committee meeting.**

To create contacts and shared understanding, it is necessary to start communicating at the very beginning of the decision-making process,⁵⁴ especially during the diagnostic phase, **issue diagnosis** which assesses and categorizes new ideas, data, events or projects, and allocates resources (human, material or financial) for the project development.

Developing early contacts with decision-makers will also enable the energy experts to find an **upper management champion** for their project, which is crucial to project acceptance. "In this regard, it must be emphasized that...it is not because energy-efficiency investments do not get support from the upper management that they are not decided, it is the other way around; it is because these investments are not strategic that they are not championed by upper management, which is one of the reasons why they end up in a negative or no-decision".⁵⁵

Each step of the impact ladder of communication has its own **success factors**. As described in Figure 13, **timing**, **expectations**, **need and attention** are necessary factors to get interest from the audience. These factors are interrelated: you will get attention if you meet the expectations and needs of your interlocutor(s) with the right timing. This also means you need to have the right communication and clearly highlight the **Initial Benefit Promise** for all managers, whether of the production, finance or strategy departments. The first opportunity to communicate about the future project and to create contacts and

⁵³ A decision can be defined as "a specific commitment to action ... usually a commitment of resources" Mintzberg, Raisinghani et Theoret (1976, p. 246).

⁵⁴ Please see p. 10 section 2 on Investment decision-making.

⁵⁵ Cooremans (2011).

channels of communication is offered by the kick-off meeting, at the very beginning of the investment process. This is why it is extremely important to organise this meeting carefully, and to obtain the participation of as many functional managers as possible. From this starting point, communication must continue to flow during the whole investment process, until the conclusive step of the Investment Selection Committee meeting to generate support and obtain data, another vital resource for the investment project.

2.6 Reduce uncertainty regarding investment results: data quality

"Data quality refers to **the condition of a set of values of qualitative or quantitative variables**. There are many definitions of data quality but data is generally considered high quality if it is "fit for [its] intended uses in operations, decision making and planning. Alternatively, data is deemed of high quality if it **correctly represents the real-world** construct to which it refers".56

"The **quality of data** is determined by factors such as: accuracy (or correctness), completeness (which determines if data is missing or unusable), reliability, relevance, conformity (or adherence to a standard format), consistency (or lack of conflict with other data values), and duplication (or repeated records). Business managers' lack of trust in data quality is commonly cited among chief impediments to decision-making".⁵⁷ The same can be said about the lack of consideration for non-energy benefits in the analysis of energy-efficiency investment projects: lack of (quality) data is generally cited as the major obstacle.

However, the data necessary to qualify and value the potential non-energy benefits of an energy-efficiency project often exist in companies: we just have to make the effort to find the **data owner**, **the source of the data**. It is a time-consuming effort but it is worthwhile since it may considerably improve the chances for an energy-efficiency project to be chosen and implemented. Moreover, the time needed to collect data will decrease in the future thanks to the Multiple Benefits pilot projects and case studies.

It must also be emphasised that an investment project always takes place in the future, and the future is uncertain. Therefore, putting quantitative or monetary figures on an investment project is often a difficult task for any type of investment, not only for energy-efficiency investments.

Finally, it must be noted that data collection has an important side effect: **it gives the opportunity to create contacts** with powerful functions or departments in a company (strategy, operations, finance, marketing & sales, *etc.*), **communicate** (see Section 2.1, p. 19) and, therefore, to build up internal support for the energy-efficiency project being developed.

IV. Conclusion

Communication is a vast and multidimensional issue and it is important to keep in mind the context of investment decision-making to select the most important aspects of it in order to successfully "selling" energy-efficiency investment projects. The tips and solutions described in this document are the result of this synthesis effort.

⁵⁶ https://en.wikipedia.org/wiki/Data quality

 $^{^{57}\,\}underline{https://search data management.techtarget.com/definition/data-quality}$

V. References

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