



**Application of the
organizational
canvas to reduce
lead times**



**TECHNOLOGY
SHEET**



How can your manufacturing company solve lead-time problems?

Quick response manufacturing (QRM) focuses on reducing lead times by splitting order flows and creating integrated teams. But how do you implement a holistic change in your organization aimed at reducing lead times? The focus must be on both structural and cultural building blocks of the organization. From a team perspective, it is important to consider how indirect activities are distributed and incorporated within the team; and from an individual perspective, the goal must be to keep or make jobs as active as possible, so that their learning potential is not lost.

How can you apply the organizational canvas to reduce lead times in your organization?

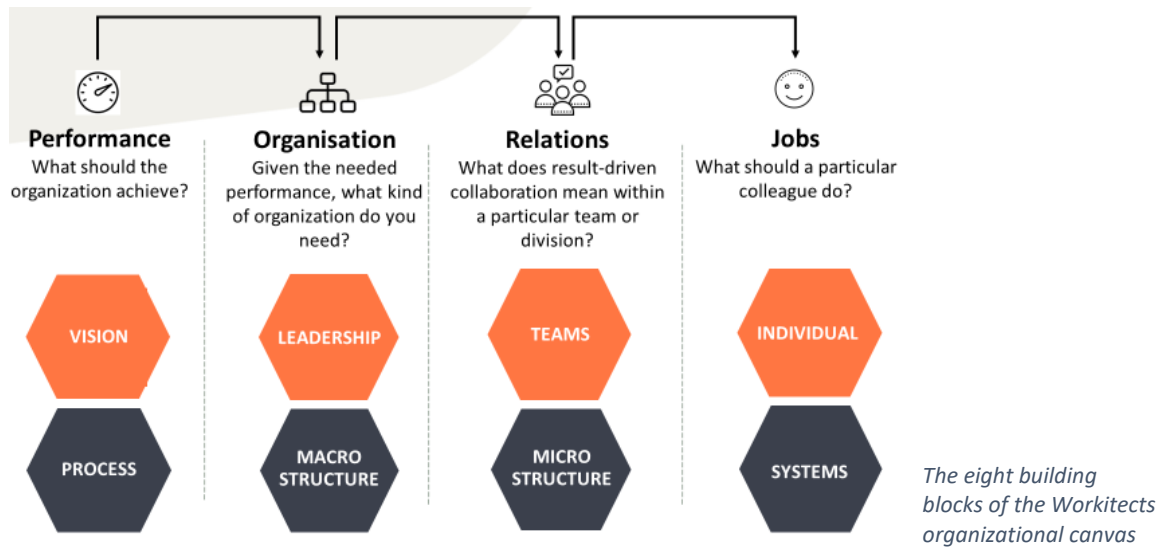
- 1. QRM: reducing lead times by splitting order flows and creating integrated teams*
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1. QRM: reducing lead times by splitting order flows and creating integrated teams

QRM is used in companies operating in a rapidly changing market and environment, with customer focus being among the main spearheads. This customer focus cannot be adopted without appropriate coordination between the various functions that should all be focused on the customer (e.g. sales, engineering, production, quality, technology). An inherent part of this strategy is the fact that as a manufacturing company you must be able to deal with fickle customers, resulting in unstable workflows. We know from research that this unpredictability can be addressed more effectively by human interaction than by complex processes and procedures.

Functional organizations work with buffers and queues as a line of defence against disruptions. If disruption occurs, this form of organization finds it difficult to see this coming or eliminate it, but as long as there are enough buffer stocks, this is not necessarily a major problem. For this reason, factories often have safety stocks spread between departments: if in the production process one department cannot deliver, then another department can still continue operating. Where such intermediate buffers are economically justified, a functional structure can last for a long time. But what if customers go to competitors because orders can be placed with them faster? And what if there is a higher level of delivery reliability with a direct competitor? The solution is to **sort out or split the order flows**. Within these order flows, you can define the team composition of a specific workstation. The theory gives us a clear idea of how to define our internal organizational structure and process. But what about the organization of team structures and individual jobs? The Workitects organizational canvas can guide you with regard to this question.

2. The organizational canvas: a holistic view aimed at transforming your organization



If your manufacturing company wants to reduce lead times, is it clear what kind of organization you need for this? What type and level of cooperation does this organization allow for each department? And also what does a specific job look like within a department? You cannot answer the last question without first considering the previous questions. We also call this the 'babushka effect': only the first question can be answered without reference to answers to other questions, whereas answers to each of the subsequent questions are based on the preceding questions.

Organizations have both structural and cultural dimensions. The **structural dimension** highlights the characteristics of the type of work that takes place within an organization rather than the characteristics of people who are members of the organization. In fact this is a mechanical way of thinking: the organization is a machine in which you want to organize flows of information and departments as effectively as possible. But organizations are more than a machine: they are also an association of people. And this group of people is motivated and held together by a **prevailing culture** of behaviours, norms and so on. It is important that all decisions in organizations always involve a combination of structural and cultural factors.

Imagine that you were a furniture company and wanted to become a leader in the manufacturing of bespoke furniture, offering your customers the best possible quality within a delivery time that was as quick as possible (i.e. the shortest possible internal lead time). The vision is very clear, but if this is not translated into processes that can reduce lead time, then this vision's implementation will fail. You may also have invested in all kinds of systems to measure and visualize lead time, but if individual employees don't know how to use them, then you have missed out on the cultural change that should accompany the implementation of the system. The interrelations between structure and culture are illustrated in the diagram above: the top indicates the cultural building blocks of the organization and the bottom the structural choices.

By applying and combining the eight building blocks, you can assess what your organization must focus on to reduce lead times. In the next part, we look at three building blocks that highlight QRM to a lesser extent, but are still very relevant in the transformation to reducing lead times: teams and team structures (or the micro structure) and the individual job content.

3. What about team structures and individual jobs?

Team structures and establishing teams

QRM says little about how QRCs or teams should be designed. From our experience, three things are important when creating teams:

- Unpredictable interdependencies are managed through interaction within the team. Indirect processes are divided up and coordinated through team roles.
- The team members have a common identity and maintain constructive work relations both inside and outside the team.
- The team monitors its own employability and ensures that the appropriate skills are developed among team members.

These choices in the micro structure can lead to key differences in how the work is perceived and organized. If teams have more control over indirect processes (such as coordination and planning), then the psychological well-being of employees will usually be better. On the other hand, there are organizations where indirect decisions are made by management or by specialists. We also know that teams with a team leader who is taking part in activities generally have less structural decision-making authority over the organization of their own work. The reason for this is simple: these teams do not have the time for this. In contrast, team leaders who are not taking part in activities often do have the time to monitor those indirect processes. From a structural perspective, opting for this latter type of team leader is a better idea. But why do many organizations fail to do this? The answer to this question has more to do with culture than structure: management prefers team leaders who participate in activities themselves, to avoid 'boss behaviour'. This kind of setup also avoids creating a divide between the team leader and the team members. The team leader thus remains one of them and one of the team. It is therefore striking that when creating teams, there is always a balance to be found between work relations and a potential optimal structure solution.

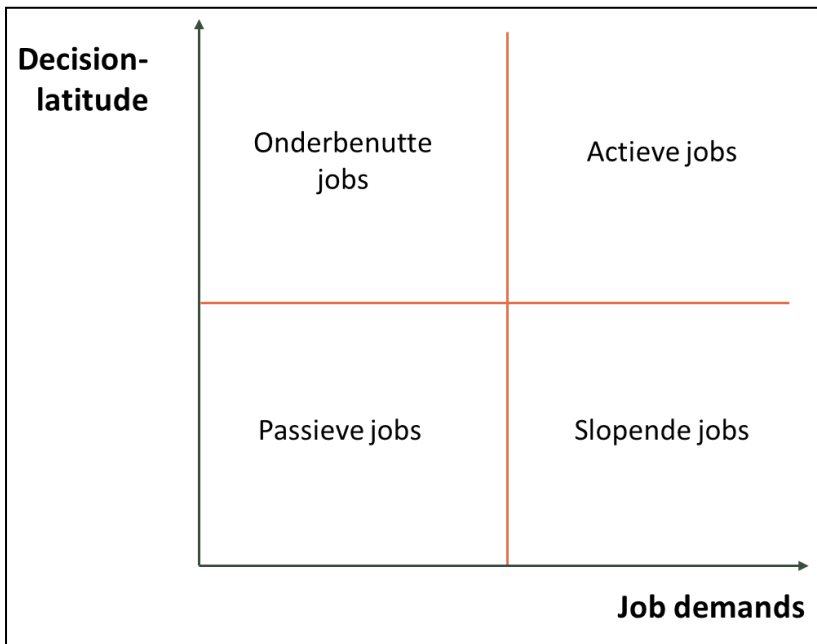
Within Workitects we have developed Teamworks. This tool focuses on the structure or process, cultural and relational dynamics within teams. When deploying this tool, the team gains a view of the following characteristics:

- *The demarcation of the team:* Is it clear who is or who is not in the team?
- *Resources and support:* Is the team sufficiently coached and properly rewarded and are all the information and resources available to carry out the work?
- *Personal relations:* What is the level of integration of the team members in the team, and what means are used for this purpose?
- *Work relations:* What is the interaction between the team members like and what is the collaborative culture like?
- *Decisiveness:* What is the division of powers and what is the decision-making method used in the team?
- *Result orientation:* How well is the team performing?

Interested in using [this tool](#) when creating your QRCs? Then contact us for more information!

Individual jobs

Extensive empirical research over a number of decades has shown that a combination of a substantial workload with limited influence on the organization of the work leads to stressful jobs. With such job content, increased work pressure often translates into chronic stress, because the job demands are systematically not met due to a lack of control options. These insights were summarized by US professor Robert Karasek in the job demand-control model (see the figure below).



Job demand-control model of Robert A. Karasek

On the one hand, there are the job demands, determined by the workload, the time pressure and the level of difficulty. On the other hand, there is the control, or the decision latitude, i.e. the extent to which employees have autonomy and can develop their skills in their work. The combination of these two dimensions gives four types of jobs: active, high-strain, passive and low-strain jobs. Active jobs offer opportunities for personal growth, because tough job demands are feasible through extensive control options. Passive jobs have few job demands but also few control options. Low-strain jobs, with many control options but few job demands, do offer opportunities for development but the human potential is not used by the organization, and so provide little satisfaction. On the other hand, when jobs have a lot of job demands but limited control capacity, there is a great risk of psychosocial strain and stress. These are high-strain jobs, leading to mental exhaustion, burnout and a negative attitude towards work.

The choices made in the organizational canvas become a trickle-down effect. To be able to work effectively within the new structure, a specific culture is needed, which encourages initiative and proactive behaviour (leadership), providing support when an employee needs it (leadership and teamwork). Finally, you also need information and tools to be able to do your work properly (systems). So if your organization is undergoing a QRM transformation, the creation of order flows has an impact on the tasks of specific workstations, and therefore also on the control options of specific jobs.

When it comes to mapping individual work experience, within Workitects we have developed the '[Work meter](#)'. This gives you a reliable view of the organization of the work and employees' job content. This tool is rather different from engagement surveys in that it makes the link between organizational structure and work experience visible, as your organizational structure determines the behaviour of employees and ensures that they perform decently, well or at their best. It is worth focusing on this, and we can help you with that.

Need help?

The Interreg project [QRM4.0](#) helps production companies improve their lead times by providing practical advice and giving financial support to companies trying to take action to roll out digital tools in their workplace. Want to find out more? Contact sander.smouts@workitects.be or seth.maenen@workitects.be

Sources:

Maenen, Seth (2018). *Van Babel tot ontwerp, concepten en methoden voor organisatieontwikkeling*. Kalmthout: Pelckmans Pro.

