Chapter 5 Controlling in Strategic Management

5.1 Control, Controlling, and Evaluation of Change Process

Many strategic transformation approaches and larger projects fail for one simple reason: they were never truly implemented. It is not only essential to plan their implementation precisely, but one must also name responsible persons and measurement techniques, and consider already in the planning phase how the implementation is to be measured. Otherwise, those approaches remain nothing more than good resolutions, similar to those made on New Year's Eve, which are then possibly forgotten and never brought to life. Therefore, some form of operative controlling is necessary.

When it comes to change management or updated mission statements, then an NOC starts a long-term change, which aims to bring innovation, thus addressing changes in the NOC environment. The NOC is doing this change to keep track, and to strive for long-term success.

| | Strategic Controlling | Operative Controlling |
|--|---|---|
| Goal | Long-term innovation and prosperity of NOC | Efficiency of projects, achievement of subgoals, working on the Mission |
| Controlling goal | Securing future potential for success | Efficiency of the processes and projects |
| Time horizon | Long-term (5-10 years) | Usually related to the project period or one year |
| Dimension | Strengths/weaknesses/ opportunities/risks | Costs, output of project |
| Width | NOC and environment | NOC |
| Predominant orientation and sources of information | Primarily external | Primarily internal |
| Main Tasks | Analysis of future stakeholder relations | Information supply Provide planning and Support for decision-making |
| Degree of uncertainty | High | Low |
| Type of Information | Predominantly qualitative | Predominantly quantitative |
| Question | "Doing the right things" | "Doing things in the right way" |
| Example | Here, the NOC controls its change process, makes decisions on larger projects, aims to reduce weaknesses, or applies any demands from the IOC. | Here the NOC controls the ongoing projects and achievement of set goals and processes. It ensures that they run efficiently and satisfy the board. |

Tab. 9: Strategic and operative controlling at NOCs

Source: Adopted from Steger (2013, 140)

Hence, we have to differentiate strategic controlling from operational controlling. Both are needed in strategic management.

Only a strategically well-thought-out concept can be the basis for successful operational NOC management. However, securing NOC success and funding, without operative action and its controlling, is not possible. Thus, there is a necessity for integrating operational and strategic controlling with interlinked control loops (Steger, 2013, 140).

The task of the "controller" – or better described as an executive director in charge – is to support the management process of

- goal setting,
- planning, and
- regulation of the organisational processes.

"Controllers", in this sense, are thus jointly responsible for the achievement of the NOC objectives. They, therefore, watch over the efficiency in the NOC and the achievement of its subgoals that are formulated in the mission. However, in their role as controller they do not propose the target management.

According to Weber and Schäffer (2014), controlling can also be seen as a concept of results-oriented management, which consists of four subtasks.

- 1. **Planning**. This ultimately serves to determine the course of the NOC, i.e., to define "Where do we want to go?", which results in a set of goals, that then guide and justify the NOC's actions.
- 2. **Control goal achievement**. Here, control means to carry out target/actual deviations, and then to also analyse the causes of any deviations.
- 3. Acquisition and supply of information. This means that the relevant information of the NOC and the stakeholders must be obtained and available in a timely, condensed, and problem-oriented manner, so that it can then be presented to the executive board or executive management level.
- 4. **Control of all sub-tasks**. This means that if the controller detects a deviation from the plan during the control, then he/she must look at how the goal can still be achieved, and how countermeasures must be taken. In case he/she notices that there is insufficient information, then he/she must determine how to obtain the relevant data.

Thus, controlling can also be seen as overall coordination, and is understood here as alignment or linking of single actions or individual decisions, with respect to achieving the overall goal of the NOC. The need for coordination ultimately arises from the fact that each action or decision directly, or indirectly, influences the achievement of the goal of at least one other action or decision. The main task of the "controller" is to coordinate and prepare the collection of data, i.e., first of all, the acquisition of the essential NOC or project relevant data, followed by the compilation, processing, presentation, and then provision of interpretation aids and impulses to the decision-making executive board or directors.

Further, the controller must develop measuring systems and work with them, because in order to control, you first have to measure where you are.

Depending on the strategy, the type and scope of projects implemented, or the change goal, an implementation of this control can be either very simple or very complex. The simplest variant is to set a deadline for the implementation of the new strategy, or the achievement of the transformation goal. But, then we have to contemplate the following questions:

- Have the agreed steps been carried out according to the plan?
- Was the plan good enough that targets were achieved?
- Has the person responsible done his/her job well or not?

This is the simple version of a check. Modern management has developed more complex control systems that go far beyond this. The classic attempt is to control organisations with the help of key performance indicators, such as Return on Investment (ROI), or better, Social Return on Investment (SROI).

Fact: Social Return on Investment (SROI)

SROI is a tool for communicating the non-profit benefits to the community. According to Lawlor et al. (2009), SROI "captures social value by translating outcomes into financial values." The idea is based on Return on Investment (ROI), a performance measure used by investors, which calculates the rate of revenues received for every Euro invested in an item or activity. SROI is similar to ROI, but shows the double bottom line: the financial impact AND the social impact of your NOC's work. SROI helps you to determine the missed benefits (opportunity cost) of what would happen if your NOC did not exist (Stombaugh, 2019). The simple formula is that SROI is the sum of tangible and intangible value to the community minus the public money invested. However, it remains difficult to monetarise tangible and intangible social values, as there is no price for that. Indirect measurements can be taken, such as the economic value of one Olympic Gold Medal, which is at least the money invested in the high-performance system of this athlete - however, that is not its social value.

Sources: Lawlor et al. (2009); Stombaugh (2019)

NOCs are organisations that have many social and intangible objectives. Therefore, it is an extremely difficult management task to control them, and simple systems based on typical business management ratios are not at all sufficient. Further, they should evolve along with the changes occurring in the Olympic environment. For example, changes due to Olympic Agenda 2020+5 or changes of member (interests) due to new Olympic sports.

Overall effectiveness is considered to be vital for NOCs. Thus, its goals must be controlled, in terms of whether (or not), or to what extent, they are reached. Therefore, indicators are needed that help monitor and control an NOC's projects/activities. To do so, in the following subchapters, useful tools, such as the Balanced Scorecard (BSC) (subchapter 5.2), are introduced. The Kanban method (subchapter 5.3) will be presented as a tool that helps, in general, to control whether tasks are delivered (or not).

Modern NOCs focus on strategic management and control over current and long-term goals. A good goal description (subchapter 2.3), has a corrective role on the success of the NOC, regarding the appropriate use of scarce resources. However, the Olympic environment is constantly changing and thus, the question is whether (or not) all goals are always kept in focus.

We first introduce the BSC as a tool for NOC management. It also helps to control the progress in an uncertain economic and social environment. While the BSC provides an overview of performance, the Kanban method is introduced, to provide a second useful tool, with which to oversee whether all projects, sub-goals, and even tasks at stake are properly achieved.

5.2 Balanced Scorecard

The Balanced Scorecard (BSC) of Kaplan and Norton (1992) is a holistic system of (key) performance indicators, which serves to design, implement, and control strategies. More precisely, it serves to translate the vision and strategy of an NOC into goals and (key) performance indicators, and by evaluating indicators it can make strategic action observable and controllable.

The basis of a BSC, is the clear transformation of an NOC vision and strategy into a well-defined bundle of qualitative and quantitative goals and key figures, with the help of a balancing system for controlling and measuring performance based on four perspectives.

Illustration: Olympic Agenda 2020 and its 40 goals

Adopted by the IOC in 2014, Olympic Agenda 2020 is a set of 40 detailed recommendations – we can see them as goals – whose overarching goal, was to safeguard the Olympic values and strengthen the role of sport in society. Identified and collated through a collaborative and consultative process, involving Olympic Movement stakeholders and outside experts, they were driven by an understanding that the world was evolving rapid-ly, and that the Olympic Movement had the opportunity to be an agent of change.

In the period since it was adopted (December 2014), Olympic Agenda 2020 has had a profound impact on the Olympic Movement, and resulted in large transformations. Each recommendation was controlled for its implementation. Qualitative performance indicators were often used, such as whether a project was started in order to achieve the particular goal.

Even though no BSC was used, the IOC acted in a similar way. A selection of the perceived goals can be seen in the following. Here, we can read the actions that are taken towards a future achievement of the goals that are set up in Agenda 2020:

- The IOC has completely reformed the way the Olympic Games are awarded, with the introduction of the two Future Host Commissions, Winter and Summer, making the whole procedure more cooperative and targeted.
- More than 100,000 Olympic Athletes, elite athletes, and their entourage members have signed up to Athlete365, a multilingual onestop shop, and dedicated platform offering specially tailored programmes and resources in six languages.
- A Safeguarding Framework, which includes an education component, a safeguarding officer and a reporting process, has been implemented as part of the Prevention of Harassment and Abuse in Sport (PHAS) initiative.
- Engagement with the International Partnership Against Corruption in Sport (IPACS), has resulted in the first tool to prevent corruption in sport.
- Memoranda of understanding with INTERPOL, whereby the United Nations Office on Drugs and Crime (UNODC) and the Organisation for Economic Cooperation and Development (OECD) are fostering cooperation with governments on sports credibility.

- All Olympic sports IFs have declared that they comply with the Olympic Movement Code on the Prevention of the Manipulation of Competitions (OM Code PMC).
- The independence of the IOC's Ethics Commission has been reinforced.
- An IOC Annual Report, including a financial report, has been published according to the International Financial Reporting Standards (IFRS).
- The IOC has created the IOC Refugee Olympic Team.
- The IOC manifested that it will make the Olympic Games and Olympic Winter Games climate positive from 2030 onwards.
- The IOC is now a carbon-neutral organisation, and has committed to becoming a climate positive organisation by 2024.
- Gender parity of athletes is under preparation to be achieved at Olympic Games Paris 2024.
- A digital strategy has been put in place, beginning with the launch in 2016 of the Olympic Channel, a platform using the "Always-on" marketing approach, to connect the Olympic Movement with the wider public.
- Agenda 2020 reforms have deepened the confidence and trust that the commercial partners are placing in the IOC, resulting in financial stability, and the revenues from the TOP Partners have tripled.

The IOC constantly reported about how many, and which, goals/recommendations were taken into action or achieved. For working with such a large Agenda, it may also be recommendable to use Kanban (subchapter 5.3).

Source: IOC (2022b)

For NOCs, the four proposed perspectives that shall be considered are shown in Fig. 37. However, when developing an individual scorecard, additional perspectives can be added, such as that of a particular stakeholder or national sporting success.

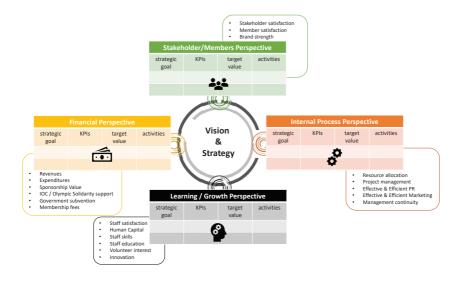


Fig. 37: Perspectives of a Potential NOC Balanced Scorecard

Figure 37 shows that a BSC allows to lay out the key aspects of an NOC vision and strategy, in four perspectives: financial, member/stakeholder, internal processes, and learning/growth. With respect to high levels of organisational complexity, the application of a BSC gives NOC officials a tool, with which to provide and measure the effectiveness of people's performance, processes, and resources (Kaplan and Norton, 1992).

Stakeholder and members perspective: The mission is to achieve the vision by delivering value, and by doing this, satisfying the stakeholders and members. As a member-driven, non-profit organisation, the NOC must deliver value to its members, in the first instance. Since stakeholders have often been closely related to the NOC by its projects, stakeholders' interests are also important to consider and satisfy.

Financial perspective: The mission is to deliver value to the members and stakeholders by using all available financial resources. The more money that is available, the more and larger projects there will be, to facilitate and achieve the NOC goals. Thus, the financial perspective is embedded in supporting the stakeholder/member perspective.

Internal process perspective: The mission is to promote effectiveness and efficiency in all NOC processes. Professionalisation, good governance, digitalisation, management skills, and goal-oriented resource allocation are all needed here. This perspective is supportive of the financial perspective,

Chapter 5 Controlling in Strategic Management

because good internal processes and well-skilled staff support the aximisation of finances.

Learning and growth perspective: The mission is to manifest the vision, by sustaining innovation and change capabilities, through continuous improvement and preparation for future challenges. Thus, staff must be trained and qualified, and volunteers must support this process. This perspective facilitates the perspective of the internal processes.

For this book, the BSC serves primarily as a communication, coordination, and control instrument, for the successful implementation of the NOC strategy. The claim of the BSC as a strategic management tool, is to translate the NOC's long-term strategy (vision – subchapter 2.3) into measurable variables, that form the basis for the management. The BSC is not easy to implement, but when implemented, it is an excellent tool with which to translate the strategy into measurable and comprehensible parameters, and forms a link between strategy and operational controlling.

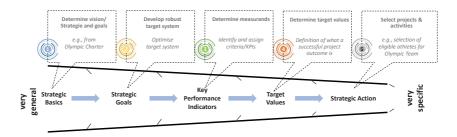


Fig. 38: Setting Up the Balanced Scorecard from Goal to Action

Figure 38 illustrates the necessary steps to develop a scorecard. The vision must be broken down into a target system (sub-goals). These must be translated into measurable indicators. If an indicator describes a target well, it is called a key performance indicator (KPI). Often, several KPIs are needed to measure if a target is met. Then, it must be decided which minimum values a KPI should reach. Usually, that is set by the NOC Executive Board, together with the Secretary General/CEO, and respective area directors. They define the expected outcome, e.g., how many pupils should be educated, how many medals should be won, or how much money should be distributed to member federations. This certainly becomes more difficult, when social projects are evaluated or intangible targets are formulated (e.g., improvement of image, safeguarding athletes). The strategic action plan is the translation into tasks to initiate projects that are sufficiently effective to reach the expected outcome.

Workshop: Developing a Balanced Scorecard for NOCs

Preparation:

The time to develop the BSC will be significantly reduced if elements such as a strategy and vision already exist. The workshop shall last for one day. The maximum number of participants should be ten. You need a whiteboard and a flip-chart.

Make sure you have a wide-ranging stakeholder group participating in the workshop. Success depends on being able to create a shared understanding of each scorecard dimension. The participants shall have pre-existing knowledge, or should acquire upfront information, about:

- NOC mission statement and any strategic plan and vision.
- Financial key data of the NOC (and where the finances stem from).
- Current structure and operations of the NOC.
- Qualification level and expertise of all (leading) employees.
- Current stakeholder and member satisfaction level with NOC.

Workshop:

- 1. Define the context in which your NOC operates (e.g., high performance sport, sport development, grassroots sport, etc.). Then, explain how it has developed and, in turn, explain which is the respective purpose/mission of each unit. In other words, consider it in the timeframe of yesterday, today, and tomorrow (using the strategic tools that have already been described, such as SWOT, PESTLE+M, etc.).
- 2. Establish or confirm your NOC's vision.
- **3.** Identify the four or more perspectives for measurements, that are clear and understandable for everyone in your NOC. The BSC, introduced above, uses four perspectives: financial, internal, learning/growth, and stakeholder/member. Others may be added for strategic reasons, e.g., sporting success.
- **4.** Break the vision down according to each perspective, and formulate overall strategic aims. Use the template (see further down) as a guide.
- **5.** Identify the critical success factors. Collect measures/figures to identify the success of the (several) projects, in attaining the reality of your vision.
- 6. Develop realisable measures with which to evaluate those key performance factors. Carefully, consider the interactions between the measures. Also, try to identify any potential knock-on effects of the measures. Remember that you can only see what you measure. Indicators that are far too inaccurate, or simply inappropriate, can mislead your evaluation. Make sure that all of your strategic measures are SMART (Specific, Measurable, Achievable, Realistic, and Timely). Consider

applying the reliable maxim of "what you can't measure, you can't improve".

- 7. Analyse the measures as a whole, to ensure at they provide a 'balanced' picture. All perspectives of your stakeholders shall be met. Also, consider that measures shall be in each of your (four) perspectives.
- 8. Establish a comprehensive, top-level scorecard. Then, take it and create more detailed cards, translating strategy into real day-to-day tasks/projects.
- **9.** Formulate target values for every measure used. To what extent should each criterion be fulfilled to provide satisfaction?
- **10.** Develop an action plan to achieve the goals and strategy that have been set. Prioritisation will be key. Before diving into the action plan, run a sanity check, to make sure all of the suggested measures align with the strategic plan.
- **11.** Develop a strategic action plan for all of your activities. That will illustrate how important each action is. By reflecting on the importance of each action, you can prioritise actions accordingly.

Source: Modified from https://workshopbank.com/balanced-scorecard

Figure 39 provides a working template for breaking down the vision in the four perspectives, and then in an action plan. Additional perspectives can be added if necessary (e.g., position in medal table).

Finally, it is useful to develop a strategy map. This is a graphic that shows a logical, cause-and-effect connection between strategic objectives. The objectives are shown in circles in the figure below. The map can be used to quickly communicate how value is created by your NOC. The graphic is very useful, because many NOC staff members are visual learners, and for them a graph is better than a written explanation.

Most important, is that the development of a strategy map forces the NOC board members, and the involved stakeholders, to agree on what they are aiming to accomplish in very simple terms. It is also a benefit that every staff member can see how he/she contributes to the achievement of the NOC's objectives.

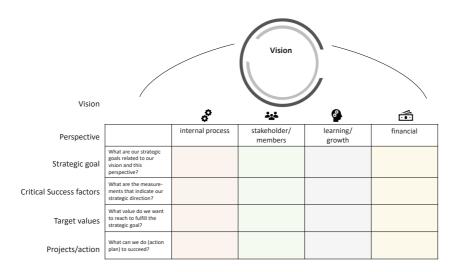


Fig. 39: Template to Develop a Balanced Scorecard

The example below demonstrates how an NOC might organise its strategic objectives across the four BSC perspectives.

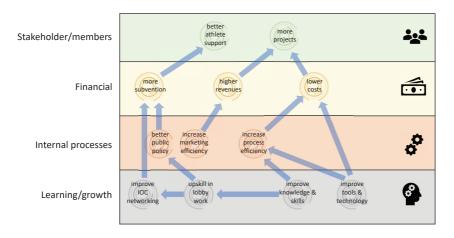


Fig. 40: Strategy Map for a Hypothetical NOC

The blue arrows show the cause-and-effect relationship between the objectives (written inside circles). By following the path of the arrows, everyone can see how the objectives in the lower-positioned perspectives drive the success of the higher-positioned perspectives (the position of each perspective is defined by the NOC). These causal relationships are central to the idea of strategic planning and management with a BSC. Fig. 40 illustrates how one sub-goal influences another sub-goal (blue arrow).

In practice, it helps to establish a traffic light system, where green means that a particular target is (almost) reached, yellow means that the target is only partly reached, and red means that the target is not reached at all. Figure 41 explains the method by using a traffic light system, to show how well (to what degree) a particular sub-goal is reached.

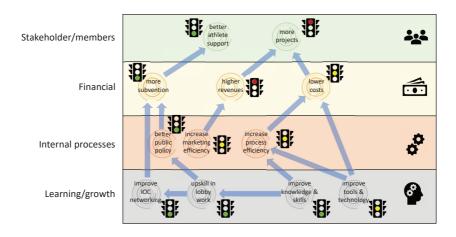


Fig. 41: Strategy Map with a Traffic Light System for a Hypothetical NOC

If objectives in the lower-level are not met, it will later impact on (i.e., damage) the success of the upper levels. Therefore, the lower-level objectives are "early warning KPIs", if they do not meet the target values. For example, if the technology is not advanced enough, that will affect process efficiency, and increase costs. Both will end in having fewer projects, with which to achieve your vision. The "early warning" here is that you see deficits in technology and efficiency in the earlier stages of affecting your projects (illustrated by the yellow signal on the traffic lights). Another example is, if you improve skills in lobby work, it will lead to better public policy which, in turn, leads to more subvention from the government and, finally, more money can be used to better support the athletes (stakeholder) (illustrated by the green signal on the traffic lights).

A recent study conducted on Polish national sport associations, has shown that the application of the BSC may have a positive impact on management processes in the sport organisations (Gulak-Lipka, 2020).

Illustration: Greek Sport Organisation uses BSC

Introduction

Contemporary non-profit sport organisations have been developed in multifaceted organisations, which confront several performance challenges. These challenges exert significant pressures from all types of stakeholders, such as the state, customers, athletes, etc. In the case of public non-profit sport organisations, the main challenge was to establish a managerial system, which could meet the varying needs and expectations of citizens and other state authorities, while sustaining an adequate level of service quality (O'Boyle & Hassan, 2014). Especially in Greece, public sport organisations operate under a strict financial environment, which allows no deviations from budgetary levels, thus exerting even more pressure on managers to balance financial outcomes, and improve the quality of services and operations within those constraints. Consequently, public sport organisations need to progress, from a simple administrative operation, towards an accountable performance-based management approach. **Results for Greece**

The results indicated that the citizens of Papagos-Cholargos perceive sport services to be of enhanced quality, related to, and when compared with, the previous years. In addition, the staff improved its skills and abilities by participating in training seminars and, in general, the implementation of the BSC method on the municipal sport organisation of Papagos-Cholargos municipality (the regional unit is North Athens) sets the basis for an effective performance management, which can enhance its future sustainability.

Source: Adopted from Dimitropoulos, Kosmas, and Douvis (2017)

5.3 Kanban Board – a Method of Agile Working

5.3.1 Basics of Kanban

With the Kanban method, you can manage work effectively (Leopold & Kaltenecker, 2015). It is a method with which to define, manage, improve, and control processes. The Kanban method can be used in a very individual way, such as organising your personal work, but also for the entire organisation – which is the focus of this subchapter.

Using the Kanban method means applying a holistic way of thinking about all NOC projects, with a focus on improving the outcome(s) (i.e., achieving the project mission(s)), for your members and stakeholders. Kanban is widely known for usage within teams, to relieve overburdening, and to maintain control over the work/projects undertaken by the team. It is an effective organisational development tool. Applications can be, for example, related to the services that are needed to send a team to the Olympic Games, or the development of content for an NOC website.

The Kanban method can be used for any team, and for individuals. It can be applied to

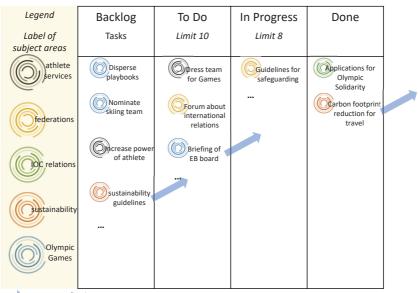
- the change management process for the executive board members,
- the project management overview for the NOC president's office,
- the project management for the team of one NOC department,
- the to-do-list management of a small sub-team (two to four persons), or even
- the to do-list management for an individual.

Above all, Kanban is able to visualise the work of persons, and how that work moves through the workflow. This enables an NOC president, board, or team to control the many tasks of the change process, or to reach goals or sub-targets through the various projects of an NOC.

By using the Kanban method, the teams that are responsible for the NOC activities will develop an adaptive capability, over time, to respond better and faster to changes in your stakeholders' and members' needs and expectations. It is different from one (organisational) culture to the next, whether a necessary Kanban may be more rigid, more detailed, or simply roughly delineated.

5.3.2 How the Kanban Method Works

The Kanban method uses a "Kanban Board" or a digital version (e.g., Trello, KanBo) as its centre. Common to all Kanban Boards is the act of pulling work/tasks from left to right through the board. On the left side, new tasks enter the board. When they exit on the right side, value is delivered to the project, or finally to the members/stakeholders. Figure 42 illustrates a Kanban Board and hypothetical tasks.



KANBAN Board

movement of tasks

Fig. 42: Exemplary Use of Kanban Method for an NOC

For each project or subject area, a label is given (colour code in Fig. 42). The label can also be the subject areas which the NOC addresses in its change process, strategic plan, or in its Agenda (such as IOC Agenda 2020). Subject areas are broken down into tasks (work items), and each task is written on a (paper) card, a so-called Kanban (Japanese meaning of card or ticket). The delivery of a task shall have a completion time window of between four to 16 hours of workload. If the tasks are too large, then the workflow will stop. If the tasks are too small, then the update of the Kanban Board will be too time consuming, and the board must be, in this case, really large in size.

Besides an NOC official/director who feeds tasks into the Kanban, an "agile coach" is needed, to work on the board. After breaking a project into its logical sub-tasks, they are put into the backlog. Then, the agile coach will be working on the board, coordinating the tasks and their flow through the chart. Regularly (would be best every day) there is a "Kanban meeting" (max. 15 min) where the team meets to discuss the progress, move tasks on the board, and discuss any case(s) of blockage of free passage. Here, the tasks are moving from "to do" to "in progress", and

finally into the "done" column. The "agile coach" adds new tasks in, after a particular task is moved out. Only when one task is finished, then it can leave the board.

The principles of the Kanban method are:

- 1. **Pull is preferred over push**. The work that needs to be done in a project is pulled by a staff member, or the agile coach, who places new tasks in the "to do" column, after other tasks have left that column. In accordance with the size of the team, there is a limited number of tasks in each column. The limited number of tasks is limiting the work that is allowed to enter the system. It is an important rule, to reduce any delay which may result in last-minute pressure. Additionally, it creates a continuous flow of work via the pull principle, in which drawing or pulling work only occurs if there is sufficient capacity. A virtual pull signal is generated when the column limit is not fully utilised. While work on the board moves to the right side, pull signals move to the left side (Kanban University, 2021). This regulates the number of tasks each staff member has to do, and no task stays too long. A task that is not taken for a longer period of time, is blocking the flow, and will need to be discussed in the "Kanban meeting".
- 2. Transparency by visualisation. As everyone has access to the board (this works best digitally), everyone in the team can see the progress of each project.
- 3. Easy communication. Each task is written down and contains all important information about the work step.

The overall target is to keep all staff working without overdoing any work pressure that may be impacting on them.

The number of Kanban Boards that are needed in an NOCdependson what for the method is used. It can be used internally for teams, and it can be an overall steering instrument that is used by the executive board to coordinate an agenda or an entire NOC change process.

The number of columns in the Kanban Board is flexible. Each column needs to contribute to the progress of the work. The simplest Kanban Board is "to do", "in progress", or "done" (see Fig. 42). After working with this method, additional columns may be added, e.g., one for "blocked tasks", one for "waiting for information from outside", one for "very urgent with deadline", or for tasks that are stuck for too long in the "in progress area", which is the column for the "re-think priority". The Kanban Board should reflect upon the NOC's specific workflow. The possibilities may vary greatly and, therefore, each Kanban system and each Kanban Board is unique (Kanban University, 2021).

It is important to describe each task in detail, and with deadlines. The description should also contain the expected result from the task. Depending on what the Kanban Board is used for, tasks should be completed in a certain period of time (usually five to ten days), in order to qualify for removal from the board. Tasks that have no time pressure to be finished, often stay longer in the "backlog".

To install the system at an NOC, a feedback loop is required. Continuous improvement is one of the important components of the Kanban method. Feedback can be given at meetings. Thus, improvement is enabled by daily (Kanban meetings), weekly (meetings to decide the new tasks that need to enter the board), and quarterly feedback loops (here, the executive board will meet to discuss the project changes, new projects, and inspect the completed work) (Agile Scrum Group, 2021).

Workshop: Introducing Kanban to your Staff and Explaining How it Works

Build a team of leaders (that lead a Kanban team). Depending on the content of the Kanban, you need to involve all leaders who will be using Kanban to control and coordinate the work.

Preparation: Only a small amount of equipment is needed for the introduction of Kanban: a large, white surface such as a whiteboard, a blackboard, or a pin board (our Kanban Board). You may also use a digital board. You need cards on which the tasks can be written down. Use sticky tape for the width of the columns.

- 1. Define Workflow: Now, the question is, into which work steps can the Kanban Board be divided? The board is divided into several "lanes" or columns. Each column represents a work step in your workflow or project. Start the easy way, and add something only if you think you need it: BACKLOG / TO DO / DOING / PROGRESS / DONE.
- 2. Define tasks: Let us stick to the classic model with the three columns "to do", "doing", "done". First, all tasks of a project should be written down on cards. Each task is recorded on its own card and stuck/ pinned in the "to do" column (far left side). If you formulate the tasks too granularly, you will lose the overview in the abundance of cards. If the tasks are too large, they will be in progress for days, or even weeks, and you will have the feeling that nothing is progressing. Rule: A task should be completed within a maximum period of two days.
- 3. Meetings: Communication and agreements within the team are two of the most important elements of agile working, and contribute

significantly to success. In the Kanban method, the so-called "Kanban meetings" (short, daily, 15-minute meetings) are needed. The goal of a meeting, is that all team members will exchange information about how they have progressed since the last meeting, and what the next steps are. In addition, they should be used to clarify open questions, and to discuss the desired results of the individual tasks.

Source: Schweihofer (2021)