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WE HELP PROFESSIONALS LEARN KANBAN IN PRACTICE SO WELL AND AVOID MISTAKES AS IF THEIR CAREERS DEPEND ON IT!

THE KANBAN FRAMEWORK

INTERNATIONAL SCRUM INSTITUTE ™

FIRST EDITION

THE KANBAN FRAMEWORK

TRAINING BOOK

FIRST EDITION

BY INTERNATIONAL SCRUM INSTITUTE™

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Dedication

To all of the International Scrum Institute™ students, thank you for inspiring us, keeping us focused, and making sure we do our best to help you grow in your career with your skills and knowhow.

Without you, your engagement and your loyal support, International Scrum Institute™ could not come where it is today.

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WELCOME

Hi! My name is Yeliz.

First of all, thank you very much for getting your copy of The Kanban Framework. I love that you are taking the time to read it.

I want to briefly share with you the backstory of why we wanted to write this book for you and how you can get the best use out of it.

Within the context of our Kanban training and Kanban certification programs, we did thorough research in the Kanban education space.

The conclusion was: We failed to find one single reliable study book, we could sincerely recommend to our students!

We surveyed and talked to our successful students who have successfully passed their Kanban certification exams, and we found out a remarkable and yet indisputable piece of information.

Almost none of the Kanban books in the market did help them learn Kanban and make a smooth beginning to deploy and profit with the Kanban Framework. They did end up with literally zero return on investment. Both for their professional objectives as individuals and the financial goals of their organizations.

A significant number of Kanban books in the marketplace claim that they cover all details of the Kanban process. However, what they are not telling is that: They don't have a logical, to-the-point, and digestible structure, and time-tested and proven contents.

So these books were unable to help our students comprehend and most importantly love Kanban!

In summary, to remove this significant impediment in the Kanban learning space, we took the liability to write for you The Kanban Framework and brought it to your service!

We are absolutely confident that **The Kanban Framework** will make you proficient in the Kanban process and its practical use in your career and businesses.

So you will have an unprecedented opportunity to love Kanban and keep on taking the tangible benefits of being a Kanban professional who knows how Kanban should work.

Take some coffee to enjoy and some paper to take your notes, and spend some quiet time to read The Kanban Framework!

Afterward, you will have a great understanding of the Kanban domain and be prepared to pass your Kanban certification exams.

You will be ready to deliver great products and services to your clients and employers and to build your bright career and future!

It already seems to me that you're a person who is keen on adding new skills to your toolbox. Otherwise, you wouldn't be reading these sentences today.

I am delighted that you're giving us your time and attention to learn Kanban. Let me assure you that we'll never take this responsibility lightly. It's our duty, obligation, and at the same time, our pleasure to accompany you on your journey to learn Kanban.

You can count on me whenever you may need any help. I will be always pleased to assist and serve you!

Thank you very much again for your trust in our services and engaging with **The Kanban Framework** today!

Yeliz Obergfell
Vice President - Student Experience
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ABOUT INTERNATIONAL SCRUM INSTITUTE™

International Scrum Institute™ is an independent institute. We help organizations and professionals get certified with worldwide renowned and valid Kanban and Scrum certification programs and prove their competence in the Kanban and Scrum domains. We empower professionals globally to build their careers, and organizations to create and sell their outstanding products and services that their clients will love.

Your renowned Kanban and Scrum certification programs have proven their worldwide recognition by being the choice of more than 594,000 Scrum professionals in 143 countries.

Before International Scrum Institute™ was established for you, there used to be pressing challenges for Kanban and Scrum professionals like yourself.

You didn't possess a reasonable alternative to get your Kanban and Scrum certifications and prove your competence in Kanban and Scrum domains.

Kanban and Scrum professionals had to pay expensive fees for the one way profit-driven Kanban and Scrum certification programs of other certification entities. Moreover, they had to pay hefty prices for classroom training, recurring certification renewals, and various additional recurring subscriptions and memberships.

International Scrum Institute™ aims to remove these barriers set in front of the Kanban and Scrum professionals in developed and emerging markets. We are here to save you from paying unreasonable fees for Kanban and Scrum classroom training, and Kanban and Scrum certification programs before you certify your knowhow in Kanban and Scrum.

International Scrum Institute™ provides twelve major online Kanban and Scrum certification programs. These programs have been designed by our consortium of renowned business and

people leaders, coaches, mentors, experts, and authorities from all major industries.

Here is an overview of our Kanban and Scrum certification programs we have created for you:

- **Certified Kanban Expert™ (Kanban-EXP™)**
- **Certified Kanban Project Manager™ (Kanban-PM™)**
- **Scrum Master Accredited Certification™**
- **Scrum Product Owner Accredited Certification™**
- **Scaled Scrum Expert Accredited Certification™**
- **Agile Scrum Leadership (Executive) Accredited Certification™**
- **Scrum Trainer Accredited Certification™**
- **Scrum Coach Accredited Certification™**
- **Scrum Team Member Accredited Certification™**
- **Scrum Certification for Web Developer™**
- **Scrum Certification for Mobile App Developer™**
- **Scrum Certification for Java Developer™**

Moreover, feel free to check out the articles specified below to read why we perform and serve you far better than our competitors.

- **Featured on LinkedIn with Hundreds of Likes: Scrum Master Certification Made Economical: Step-by-Step Plan**
- **8 Reasons Why International Scrum Institute™ Serves You Far More Better Than Its Competitors!**
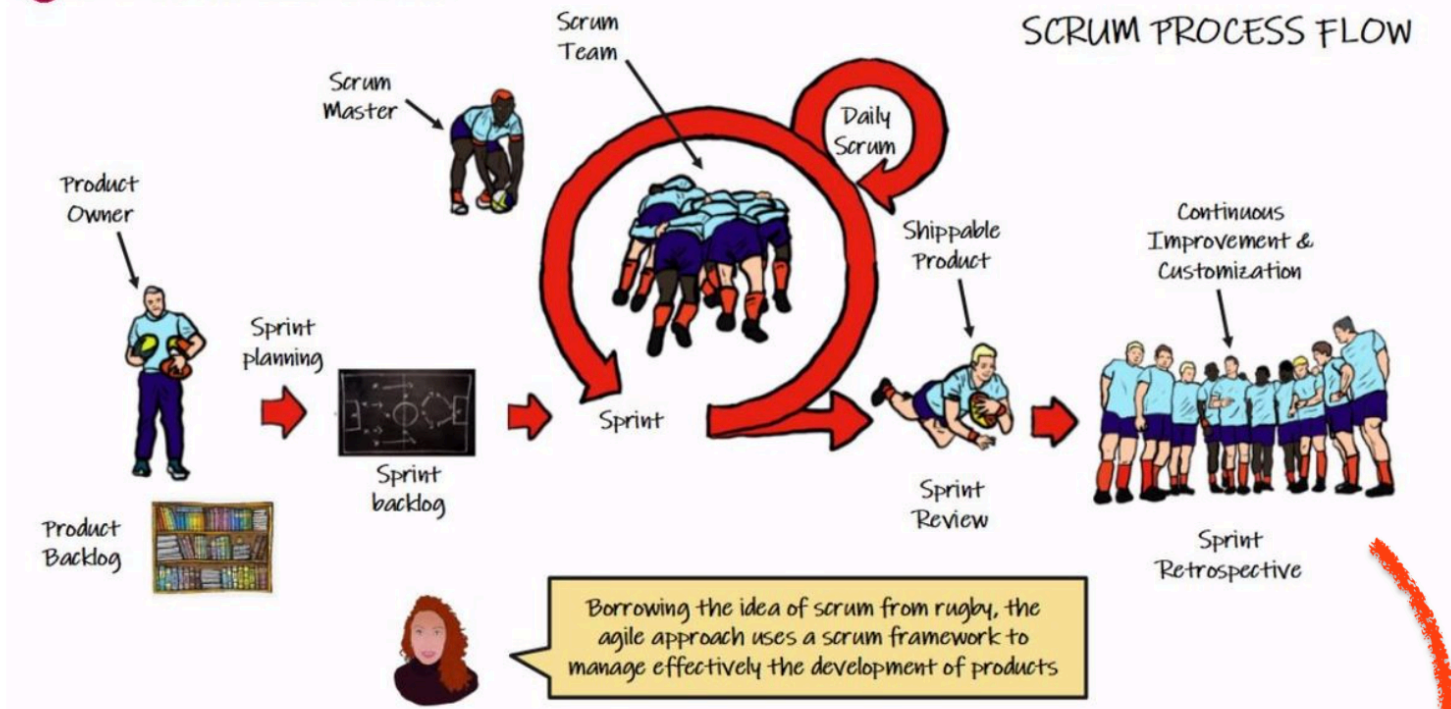
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Scrum Master Certification Made Economical: Step-by-Step Plan

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Scrum Master Certification Made Economical: Step-by-Step Plan Featured on LinkedIn https://bit.ly/31R5wd2

WHAT IS KANBAN? (KANBAN DEFINITION - KANBAN MEANING)

Kanban takes its name from the **cards** that track production within a factory. It's a scheduling system for lean manufacturing and just-in-time (JIT) manufacturing.

Kanban Definition

In Japanese, Kanban (看板) means signboard or billboard. Taiichi Ohno (February 29, 1912 - May 28, 1990), an industrial engineer at Toyota, developed Kanban **to improve production effectiveness and decrease wastes.**

Kanban ended up being an efficient framework to support running a production system as a whole and an excellent way to promote improvement. Identification of the lead time and the cycle time of a given process and its associated sub-processes, and incompatibilities among them highlight problem areas.

One of the main differences of Kanban compared to other processes is that it explicitly establishes an upper limit to work in progress inventory to prevent overcapacity. **Less is more to get results (Remember how the Google landing page looks like).** However, as human beings, we are tempted to get trapped with **Complexity Bias**.

Kanban establishes maximum limits on the number of products waiting at supply points. Afterward, the Kanban team identifies and addresses any inefficiencies in their workflow. Whenever a limit is not honored, this points to an inefficiency to be sorted out and a process improvement potential to be exploited.

Therefore, it's safe to say that **the primary goal of a Kanban system is to restrict the accumulation of excess inventory.** The purpose of the Kanban team is to eliminate this excess inventory at any point in production. That will lead to better allocation of available resources (human, tools, financial) **to increase business throughput and profitability, and to remove wastes, bottlenecks in the processes.**

WHAT ARE THE ORIGINS OF KANBAN?

The three systems which historically build the **origins of the Kanban framework** have one significant common aspect. When it comes to production planning, they all have chosen **"pull"** modus operandi over **"push"**.

What is "push" modus operandi in production planning?

With "push" modus operandi, the supply center keeps on producing and delivering parts regardless of the moment the demand center consumes them.

What is "pull" modus operandi in production planning?

With "pull" modus operandi, the supply center produces and delivers parts based on requests coming from the demand center.

A crucial element of the success with a push-based production scheduling is the competence of the demand-forecast. So that the supply center produces and delivers parts without causing under- or over-inventory in the demand center.

Kanban, on the contrary, establishes a method where the pull comes from the demand center, and products or components are Just-In-Time (JIT) manufactured based on demand. Production, delivery, resupply, and replenishment are all determined based on actual client needs.

Although it's a challenge, done correctly, this approach **optimizes the use of resources needed both in supply and demand centers, whereas it makes inventory management almost obsolete.**

Now let's discuss the origins of the Kanban framework, the three processes which constructed its foundation.

Kanban Two-Bin System For Shelf-Stocking

"2-bin system" stems from the most basic visual stock replenishment signaling system, an empty box. Factories in the United Kingdom initially set up this process to produce Spitfires throughout the Second World War.

Toyota analyzed processes in supermarkets during the 1940s to identify **diverse shelf-stocking strategies** for their own factory floor.

In a supermarket, consumers typically buy what they require at the needed time with the desired quantities. Furthermore, a supermarket builds its stocks for what it anticipates to sell in a given timeframe. Clients usually only buy what they require since the future supply is ensured.

This observation led Toyota to see a process as a client of several preceding processes and to see the other preceding processes as a kind of store.

Kanban utilizes the rate of demand to control the rate of production, passing requirements from the consumer up through the series of production and delivery process. In 1953, Toyota applied this mechanism in their main plant factory.

Kanban aligns stock levels with real intake. A signal informs a supplier process to produce and provide a brand-new shipment when the consumer process takes in the material. This signal is leveraged during the entire replenishment cycle to bring clarity to both the supplier and customer.

Kanban Three-Bin System For Supply Chain Management

A **"3-bin system"** links various departments or various parts of work processes. Sometimes, it even links business to its outside suppliers.

A typical 3-bin system should work like this:

The factory places one bin where items are manufactured. The shop places another bin where parts and materials are held. And the supplier places one more bin.

When the factory has no more parts of a specific type, it sends its empty bin to the shop to be refilled. The shop fills the bin and then dispatches its own freshly emptied bin to the supplier. The supplier then sends a full bin to the store.

The bins function as the signal to indicate that downstream processes need more of some parts. They also offer permission to move parts from one place to another. In Kanban, absolutely nothing moves without a demand signal from a demand center.

The majority of 3-bin systems also keep Kanban cards (or some other information sheet) in the bins specifying what the bin includes and in what quantity. **When one of these bins is leaving its original center to be refilled by another party, cards help process participants to view the role of these bins.**

Toyota's Six Rules For Kanban

Toyota team has created six significant rules (Toyota's Six Rules for Kanban) which guide Kanban practitioners from the past to today.

- Each consumer process dispatches demands (bins and Kanban cards) to its supplier processes after it consumes its materials.
- Each supplier process manufactures and delivers in association with the amount and sequence of incoming demands.
- Items are neither manufactured nor delivered without a pending demand.
- The request (Kanban card) related to an item (bin) is always connected to it.
- Supplier processes must adhere to the highest standards of quality assurance to guarantee that the delivered products are defect-free.
- Limiting the number of pending demands makes a process more delicate and reveals potential inefficiencies to be addressed.

WHAT ARE KANBAN CARDS WITH KANBAN CARD EXAMPLE? (KANBAN CARD TEMPLATE)

Kanban cards are an essential element of Kanban. In fact, translated from Japanese, a **Kanban means a visual (kan) card (ban).**

Kanban cards imply the requirement to move products within a production center or to move materials from an external provider into the production facility. **Therefore, the Kanban card is a message that signals the depletion of an item, parts, or inventory.**

When a Kanban card is obtained, the card (Kanban) activates replenishment of that product, part, or stock. So the consumption center drives demand for more production, and the Kanban card signals a request for more items. **In summary, Kanban cards help produce a demand-driven system.**

Supporters of **lean movement** extensively hold demand-driven systems result in **much faster turnarounds in production and end-user delivery.**

Lower stock levels help companies carry out these systems much more competitive. That enables companies to use their available resources optimally.

Most Kanban cards consist of a minimum of the following Kanban card template (Kanban card example), while the specific details included on a Kanban card example can differ from one system to another.

• Part description,
• Part / Item number,
• An identifying bar code or QR code,
• The number of parts to be ordered, produced or transported,
• Routing info (associated upstream and downstream processes),
• Location information,
• Lead time,
• Supplier,

- The accountable individual (mostly a coordinator),
- The order date,
- The due date,
- Type of container,
- Order of containers (for example, Kanban card 2 of 4).

Cards are usually fixed to a container, efficiently turning a bin into a Kanban. In other cases, a Kanban card is temporarily attached to shelves of bins.

These **Kanban cards (signal cards)** are an integral part of a Kanban system to manage inventory. **A Kanban card must be treated like a highly regulated item.** Losing one can quickly close down a production line and fully interrupt the production until the missing parts are again available.

WHAT IS A KANBAN BOARD WITH KANBAN BOARD EXAMPLE? (KANBAN BOARD TEMPLATE)

Kanban board is among the devices which are utilized to apply the Kanban process. **Kanban board can be used to handle operations and matters in professional as well as in personal domains.**

Kanban boards creatively illustrate operations at its several phases of the Kanban framework. It utilizes cards to instantiate task items and also columns to illustrate each stage of an operational Kanban process.

Kanban cards move from left to right on a Kanban board to help teams coordinate their workflow and visualize the progress of their tasks. A Kanban board might be separated into horizontally parallel "swimlanes" to divide various types of works performed by different teams.

Kanban boards are also utilized in knowledge works (software engineering, project management, program management) as well as in the manufacturing processes.

In the abstract level, a Kanban board has the following columns to demonstrate the phases of a Kanban card (work item).

• Waiting (To-do)
• In Progress (Doing)
• Completed (Done)

The naming convention and other columns can be customized based on the stages of a given workflow operated by a Kanban team.

More comprehensive Kanban boards can be designed to partition "in progress (doing)" work into numerous other columns to depict the workflow across all units with are interacting with this work.

For instance, in a software engineering organization, "in progress" column can be roughly

divided into "Analysis", "Design", "Development", "Test" and "Delivery" columns.

Kanban boards, depending on the workflow for which they are utilized, can differ substantially.

A Kanban Board could visualize:

- Various Types of Kanban Cards (features, user stories, defects),
- Extra columns identifying workflow phases,
- Explicit policies (regulations about how to use the Kanban board, and definition of done of phases),
- Swimlanes (rows across multiple columns to group user stories by features or defects by products and components).

The primary goal is to make an entire workflow visible and understandable to all working participants and stakeholders of the workflow.

The Kanban board template depicted on the next page represents a software delivery process on a Kanban board.

Let's pay attention to the following characteristics of this Kanban board example:

- It highlights the tasks of the software development team including epics and user stories.
- The values circled below column headings specify the maximum number of Kanban cards **(Work In Progress Limit, WIP Limit)** that can be simultaneously processed in a given phase.
- Below certain columns, it specifies **explicit policies**, which are also known as **done rules**.
- It encompasses a Kanban workflow management feature to divide certain columns as "Ready" and "In Progress". The WIP limit applies to both sub-columns to ensure that the associated teams and workflow stages are not overwhelmed due to excessive number of tasks (Kanban cards) on a single column (phase of workflow).

**Kanban Board Example for Software Engineering
(Source: Andy Carmichael, Wikipedia)**

WHAT IS A KANBAN SYSTEM - KANBAN DEVELOPMENT METHODOLOGY?

Kanban system (Kanban development methodology) is a framework that intends to implement the flow of work (workflow) through handling requirements along with available capacity.

Furthermore, **Kanban development methodology aims to improve the operations** of a workflow by removing system-level bottlenecks of the workflow.

In a Kanban system, Kanban board and Kanban cards provide Kanban team members and workflow stakeholders, an overview of work progress. As well as a guideline on how the work gets done from its beginning to its end. A Kanban card (work item) is only pulled as much as the work in progress limit (WIP limit) of a Kanban board column allows, instead of a Kanban card is arbitrarily pushed to the next phase of the Kanban system.

A Kanban system delivers a graphical process operations system to enable monitoring and increase decision-making capability about individual phases of the workflow. That is especially important for knowledge work and software development, which require ultimate transparency about what works well and what doesn't, so Kanban teams identify where the bottlenecks are and how to fix them.

A Kanban system (Kanban development method) in software development and software engineering is frequently used in combination with other software development and delivery frameworks such as **Scrum** and **DevOps**.

Kanban systems are designed to manage all types of information works, not only workflows related to software development, software delivery and software teams.

Other business functions that frequently use Kanban development methodology are sales, marketing, human resources, recruitment, business strategy, executive leadership, organizational transformation and many others.

WHAT IS A KANBAN SOFTWARE - KANBAN BOARD SOFTWARE?

Numerous producers have introduced **Kanban software (Kanban board software) systems** often described as e-Kanban systems. This Kanban software assists in removing typical issues such as manual entry mistakes, forgotten, and lost Kanban cards.

Kanban board software systems are usually incorporated into **enterprise resource planning (ERP)** systems. That allows real-time requirement signaling throughout the supply chain and enhanced transparency of workflow.

Information pulled from E-Kanban systems are utilized to enhance stock levels. They enable much better tracking of provider lead and replenishment times.

Kanban software is a signaling system that utilizes a mix of innovation to set off the motion of workflow within a production facility or information work such as software engineering.

Electronic Kanban (e-Kanban) varies from conventional Kanban in using technology by substituting standard components like Kanban cards with **barcodes, electronic Kanban cards, and electronic messages like e-mail or electronic information exchange.**

Kanban software typically utilizes internet infrastructure as a medium to route messages.

Furthermore, most of the popular Kanban tools or Kanban board tools for project management do rely on Internet communication too. These Kanban tools or Kanban board tools are primarily managed **Software as a Service (SaaS)** solutions hosted and maintained by their respective vendors on public cloud computing systems.

They enable Kanban teams and their stakeholders to have real-time visibility of their inventory levels or status of their information work.

A Kanban board software system typically marks stock with barcodes or tasks with e-Kanban cards. Kanban team members can scan or manually move them at different phases of the production or the delivery of information work to signal use.

These scans or manual moves pass on messages to internal/external parties to make sure the restocking of items or bringing new work items into the workflow of information work.

WHAT IS A KANBAN TOOL (KANBAN BOARD TOOL) FOR PROJECT MANAGEMENT?

A **Kanban board tool (Kanban tool) for project management** is going to give you a fantastic clarity and transparency of the progress and bottlenecks of your projects.

Kanban cards, colors, swimlanes, tags, and due dates will assist you in composing your work on your digital Kanban board software. You will have the ability to analyze and continuously improve your processes to increase business efficiency and reduce wastes.

Below are some of the Kanban board tools for project management. **International Scrum Institute** does not testify the fit or performance of any of these Kanban tools for your own project and business. However, we can confirm that we have a pleasant experience with **Trello** mentioned in this list.

- Asana Boards,
- Azure DevOps Server (to administer Kanban workflows among distributed teams),
- CA Technologies Rally (to manage software projects with pull-based lean planning tools),
- Jira Kanban Boards,
- MeisterTask Kanban Application,
- Microsoft Planner (Part of Microsoft Office 365),
- Notion App,
- Projektron BCS (Kanban board and cards for software development and software mainte-nance teams),
- Trello (Kanban board tool and electronic Kanban cards for project management)
- Tuleap (Open source application for software engineering teams),
- Twproject (project and program management software based on Kanban).
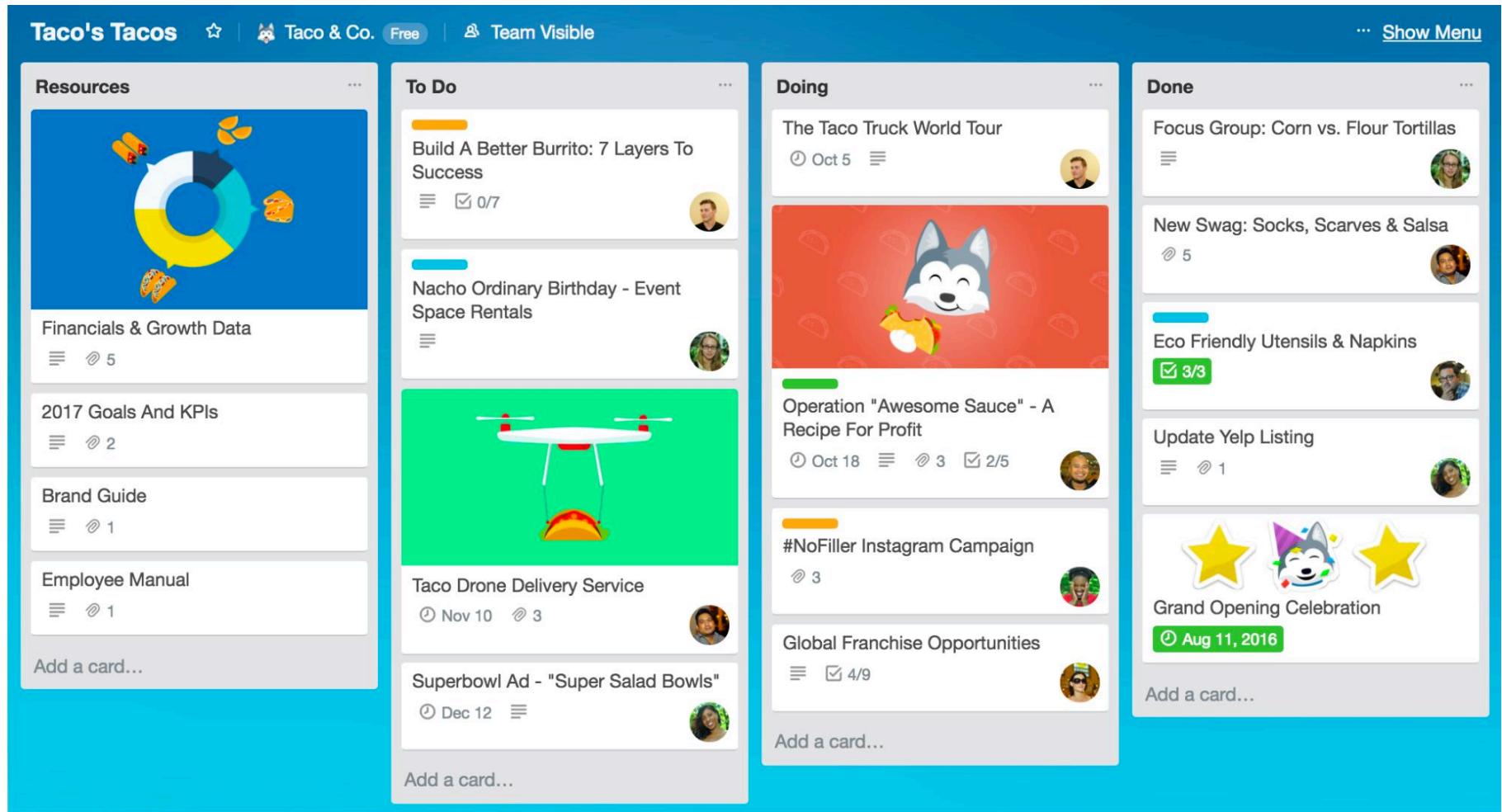
**Kanban Board Tool (Kanban Tool) For Project Management
(Source: Trello)**

WHAT IS A KANBAN CERTIFICATION?

Kanban certification has been granting tremendous advantages to millions of Kanban experts until today. Therefore, there is no reason that you won't join these skillful men and women who promoted their careers and professional abilities with the help of the Kanban framework.

Kanban Certification Definition

A Kanban certification is the attestation of your proficiency in the Kanban operations management, as well as in the Kanban software development and delivery framework.

Kanban certification recognizes your expressed knowledge and distinguished expertise in the Kanban framework after an official multiple-choice test examination.

If you're still curious, I would love to reassure you that you can no longer envision a flourishing career without holding a Kanban certification. It's

regardless of your position, power, and expertise in knowledge work and information technology ecosystems.

You even don't need to be an IT expert anymore to know what Kanban is, how Kanban works, and get a Kanban certification. Regardless of what you are doing for a living, and regardless you belong to an IT department or not, there is an inherent and undeniable truth.

Your duties and acknowledged market power you've been offering for your business are reliant on and interrelated to information work, software, Kanban framework and Kanban principles.

Moreover, due to the transformation of conventional enterprise types into software as a service (SaaS) forced companies or so-called digitalization journey, it's no longer a deliberate choice for any trained expert in or outside the IT department to get certified as a Kanban expert.

However, it's a necessity now to get a Kanban certification.

What Is Certified Kanban Expert™ (Kanban-EXP™) Certification Program? And Why Is It Important For Your Career?

The primary function of a **Certified Kanban Expert™ (Kanban-EXP™)** is to ensure flawless foundation, adequate and sound development, and constant refinement of Kanban practices in a Kanban organization and its Kanban teams.

Hence, the proficiency and viewpoint of all team members in a Kanban system and how well they fit their Kanban teams are essential. These fundamental factors usually determine the maturity level and business throughput of a Kanban organization.

Whether you belong to a Kanban team or you cooperate and operate together with other Kanban organizations, you need to have a clear understanding of Kanban.

Certified Kanban Expert™ (Kanban-EXP™) Certification Program will teach you how and what makes the Kanban framework far more efficient to work with than many other operational management, software development, and delivery processes.

Accordingly, regardless you're an IT, software, technology practitioner, leader, manager or not, every professional at this current digitalization age (when software and everything around it are kings) is highly recommended to become a Certified Kanban Expert™ (Kanban-EXP™).

What Is Certified Kanban Project Manager™ (Kanban-PM™) Certification Program? And Why Is It Important For Your Career?

Certified Kanban Project Manager™ (Kanban-PM™) is the person accountable for fulfilling the desired and declared project goals. Key responsibilities of a Kanban project manager involve building transparent and achievable project goals and facilitating the development of project requirements.

A Kanban project manager also manages the pressure of the project management triangle, which are the cost, the schedule, the scope to accomplish remarkable performance, and quality.

A Certified Kanban Project Manager™ (Kanban-PM™) is often a client representative. Kanban project manager needs to discover and aid the implementation of client requirements, based on expectations of the business stakeholders or the client he or she is representing. Kanban project manager is the bridging passage between the Kanban development/Kanban delivery teams and their business sponsors.

Thus, a Kanban project manager has a good knowledge of the industry he or she is navigating. That's essential to understand and arbitrate the expectations, problems, and progress with both the Kanban delivery teams and clients.

Kanban project managers should possess the strength to adjust to the various internal procedures of the contracting parties. They form close collaboration with the nominated representatives of both business and technology stakeholders. That's again essential in assuring that the critical issues related to expenses, plans, deliverables, and quality can be efficiently resolved. **So that, the Kanban team can delight the business owner (client) with their throughput.**

In summary, the title and name Certified Kanban Project Manager™ (Kanban-PM™) describes the person who is given the liability to complete a project. Kanban project managers are persons with full accountability for their projects. They have the required level of authority to deliver the planned project objectives within the project budget, on time, and with the highest possible quality.

WHAT IS A KANBAN WORKFLOW? (KANBAN WORKFLOW DEFINITION - KANBAN WORKFLOW MEANING)

All work a Kanban team performs and delivers from the conception of their product until the end of the product's life cycle builds the Kanban team's workflow. And yet, the reliability, repeatability, and improvement of any process are not only based on the actual work delivered. But also they are based on the agreed norms of how the work is performed. **(How the work flows.)**

Kanban Workflow Definition

A Kanban workflow defines explicit policies and principles, followed by the Kanban team. Its main objective is to represent the rules and procedures of work while the work is flowing across different stages of its development and delivery cycle.

It's important to understand that the Kanban team cannot be imposed to use a specific workflow defined by their business stakeholders.

And yet, Kanban teams should bear in mind expectations from business units in upstream and downstream work centers to contribute the bottom line of their organizations.

Therefore, the game plan to build and improve a Kanban workflow requires **continuous collaboration between Kanban delivery teams and their associated counterparts** at surrounding work centers.

The Kanban Framework administers, plans, and operates the Kanban workflow by using a Kanban board.

Thus, the work in progress (WIP) limits for development and delivery steps offer immediate feedback loops. These feedback loops enable a Kanban team to monitor, address, and follow up on issues of its Kanban workflow.
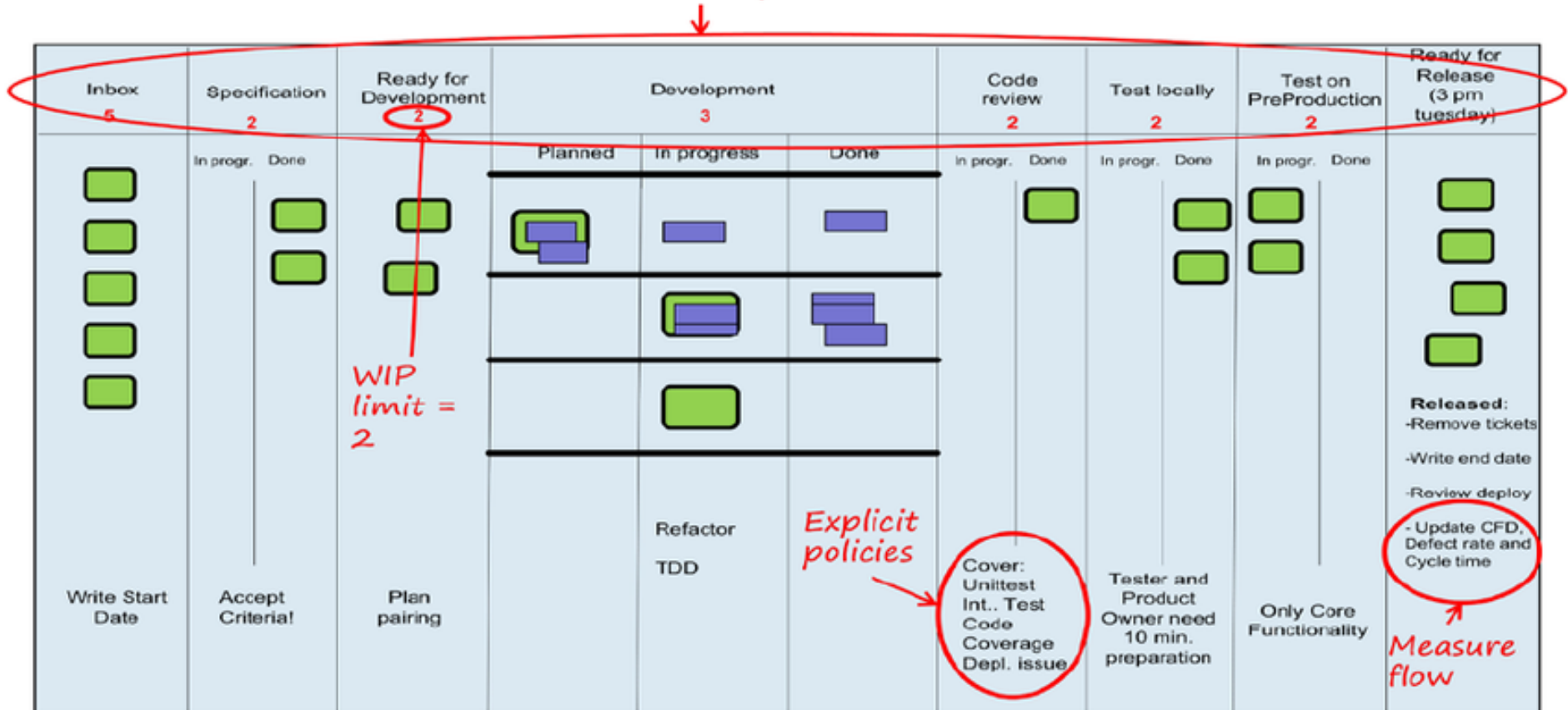
**Clearly Kanban Workflow On A Kanban Board
(Source: University of Oulu, Finland)**

WHAT ARE KEY METRICS TO MANAGE A KANBAN WORKFLOW?

You can only improve what you are focusing on. Key Kanban metrics you choose to assess the performance of your Kanban workflow are not an exception to this critical rule.

It is essential that you know the **key Kanban metrics** to manage your Kanban workflow. So you can enhance the business throughput and reduce the wastes of your Kanban team in this process.

Here are some **key Kanban metrics** you should be continuously monitoring as part of your initiative to improve your Kanban workflow:

- **Team Throughput:** The number of Kanban cards the Kanban team delivers in their Kanban workflow in a given unit time interval.

- **Work In Progress (WIP):** The number of Kanban cards in work in progress state at

different stages of development and delivery process (Kanban workflow).

- **Lead Time:** The amount of time a Kanban card spends in Kanban workflow from the moment business stakeholders request it until it is successfully delivered.

- **Cycle Time:** The amount of time a Kanban card spends in Kanban workflow from the moment the Kanban team starts working on it until the Kanban team finishes its tasks for the given card.

Cycle Time, Work In Progress (WIP), Team Throughput are interrelated by **Little's Law**.

Little's Law states that:

Cycle Time = Work In Progress (WIP) / Team Throughput

Little's Law guides us to properly administer, set client expectations, and continuously improve the Kanban workflow.

Little's Law shows the correlation between the three key Kanban workflow metrics. **Changing one of these metrics will have an impact on the other two metrics.**

For instance: To accomplish a reduction in cycle time, Work in Progress (WIP) must decrease, or the Team Throughput must increase.

- **Work Item Age:** The amount of time a Kanban card in work in progress state spends in the Kanban workflow from the moment the Kanban team starts working it until the moment of measurement.

- **Problems (Impediments):** The number of Kanban cards in the Kanban workflow that cannot be processed or delivered due to blocking dependencies, planning, or all other types of errors.

The excellent point about Kanban metrics is that you can determine the length of your feedback loop, based on how frequently you want to analyze your metrics and make changes in your Kanban workflow.

A long feedback loop indicates that your process improvement will be slow. A short feedback loop suggests that your process may not have sufficient time to stabilize between each change.

The length of the feedback loop in which you observe your metrics is one of the items you can experiment too.

WHAT ARE KEY KANBAN PRACTICES?

Key Kanban practices introduced in this section are going to guide towards the optimal operations of the Kanban framework. **Following six key Kanban practices (core Kanban practices) need to be leveraged to execute the Kanban framework successfully.**

1. **Visualize Your Workflow With Kanban:** You can analyze, improve, and control your Kanban process by continually measuring it, and making it visible to your entire Kanban team and business stakeholders.

2. **Limit Work In Progress (WIP) With Kanban:** Limit the amount of work in progress at every step of your development and delivery processes. Thus, you continuously generate business value in shorter lead times and cycle times.

3. **Make Kanban Policies Explicit:** Rules and norms of your Kanban process need to be agreed in consensus, clearly defined, and publicized. When all Kanban team members are familiar with explicit principles and policies, and their joint business goals, then they can make decisions to bring your project in the correct direction.

4. **Manage Kanban Workflow:** Kanban focuses on managing the work processes to make the Kanban workflow robust, reliable, and fast, rather than focusing on keeping people busy.

5. **Implement Kanban Feedback Loops:** Feedback loops to measure outcomes of the Kanban process (macro-level feedback) and its associated steps (micro-level feedback), which lead to deliverables, will provide the required input for continuous improvement.

6. **Improve Kanban Collaboratively, Evolve Kanban Experimentally:** The Kanban process suggests a fact-based and collaborative approach in which everyone's opinion is counted. Kanban team members have room to experiment, make mistakes, assess, and learn from them. They will excel in their process, and finally their business outcomes.

VISUALIZE YOUR WORKFLOW WITH KANBAN

Let's talk about the significance of visual components in our lives. **Human beings love visual elements. Our brains capture more information from one single picture than multiple pages of text.** Furthermore, we can process visual elements far faster than words.

30% of our brain neurons participate in the task of visual perception. In contrast, only 8% of brain neurons are active for hearing, and 3% of them are functioning for our touching sense.

Furthermore, when we look at visual components, our brains are able to process numerous pieces of information concurrently. Our brains can process visual elements around 60,000 times faster than it processes textual elements.

Visual data such as images, graphics, illustrations, infographics are a significant relief for our brain in information overload of our personal and business lives. The reason behind much faster and efficient visual processing is pretty simple. Threats in the ancient world were visible things, not memorandums, protocols or other documents.

The Kanban framework utilizes the Kanban board to make its workflow visible and transparent.

The way the Kanban board was set should enable proper planning, visualization, delivery of work, the continuous improvement of the workflow, and the individual performance of Kanban team members.

How You Visualize Your Kanban Workflow

Visualization of your workflow and processes can become quite a daunting task. That is especially true if your organization used to tolerate intransparent work among different silos of matrix organizational structure so far.

Some people can be quickly frustrated by the number of activities that goes into building your product or service. They may think that it's not very easy to visualize their workflows in the first place, so they give up. Doing the work, but not being able to visualize it. Go and figure...

Nonetheless, the following four steps will help you visualize your workflow and build your first Kanban board.

- **Step 1:** Identify the scope of your process you would like to visualize.
- **Step 2:** List the steps that get into your process, which creates outcomes such as products and services.
- **Step 3:** Transform steps of your process into lanes of your Kanban board.
- **Step 4:** Get back to work, experiment with, visualize and improve your Kanban workflow.

During this process, bear in mind that your visualization should cover the following items:

- **Acceptance Criteria of business demands** coming from the upstream work center before they can be taken into the Kanban workflow.
- **Explicit policies which are similar to Definition of Done's (DoD).** These will guide the Kanban team while their works flow from the left side to the right side of their Kanban board throughout various steps of development and delivery phase.
- **Explicit policies to limit Work In Progress (WIP)**
- **Definition of Done (DoD) of Kanban team's deliverables** before they can be dispatched to the down-stream work center.
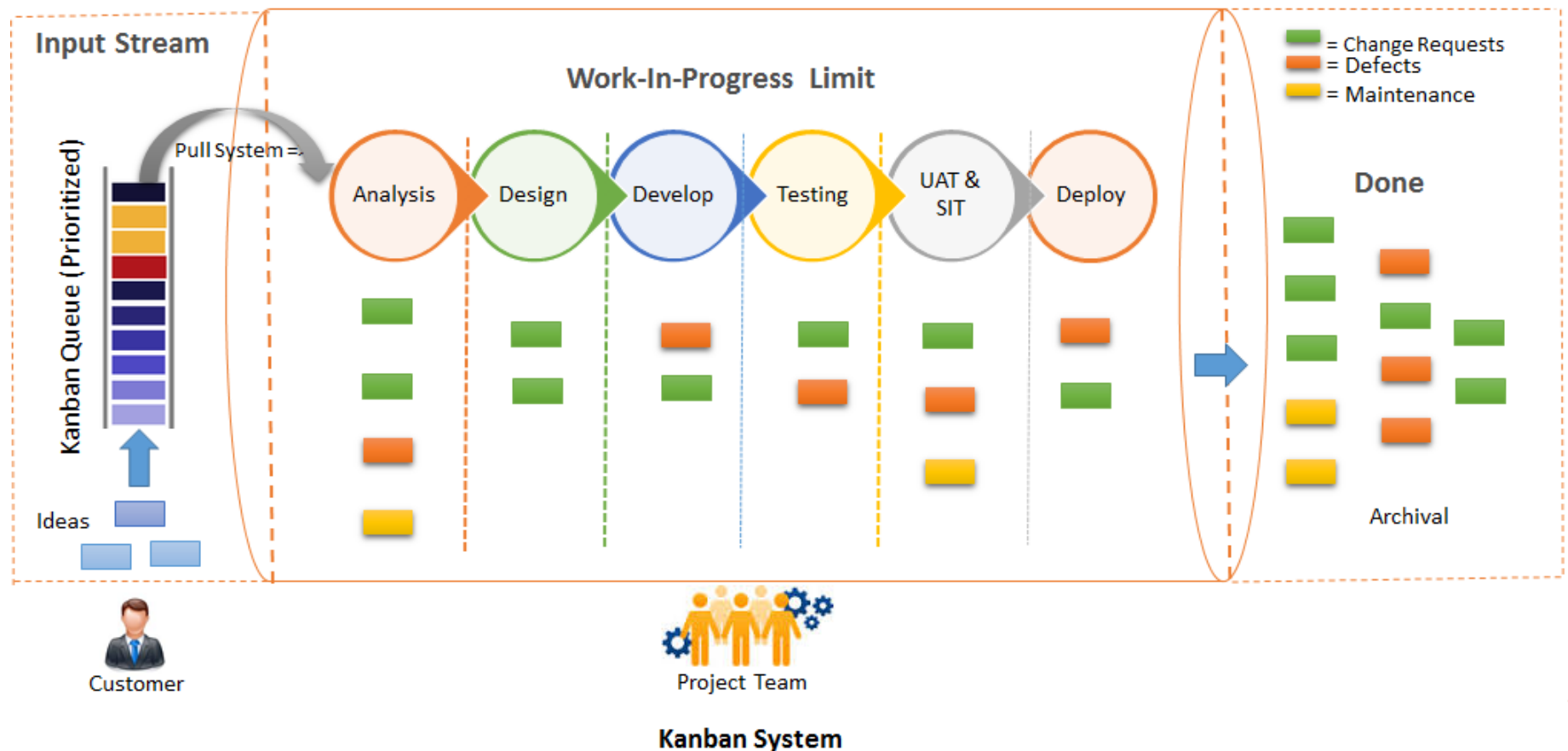
Visualize Your Workflow With Kanban
(The Kanban Framework Uses The Kanban Board To Visualize The Workflow)

LIMIT WORK IN PROGRESS (WIP) WITH KANBAN

Why do we need a definition of Work In Progress (WIP) Limit in Kanban?

Because Kanban is a pull system. That means each step of the Kanban process pulls tasks for processing depending on their available capacity. In contrast, in a push system, the demand centers push tasks and initiate their starts.

This maximum available capacity of a Kanban team, which is responsible for a specific step, corresponds to Work In Progress (WIP) Limit in Kanban.

Limiting Work In Progress (WIP) comes from efficient lean manufacturing ideas. Kanban advocates the minimization of work in progress items at every step of the production phase. That enables quicker problem resolution, faster and more optimal stabilization of processes, and lower wastes.

Over the years, it has been proven that smaller batch sizes of work enabled by limiting Work In Progress (WIP) made various other benefits possible for Kanban teams such as **building ownership of their work, system-thinking, and innovative mindsets.**

Work In Progress (WIP) limit of Kanban provides two benefits in managing disorder.

1. **Focus Of Kanban Team:** WIP Limits restrict the number of tasks influenced by altering priorities and demands. That saves Kanban teams from abandoning their ongoing tasks.

2. **Improvement Of Kanban Process:** A Kanban team cannot finish its work quicker than its slowest step. Therefore WIP Limits can quickly show the Kanban team whether specific steps are bottlenecks or the other steps are over-optimized. This input can be rapidly turned into measures to improve the overall performance of the Kanban process.

MAKE KANBAN POLICIES EXPLICIT

The goal of explicit Kanban policies is to induce certainty and increase team performance and effectiveness.

A Certified Kanban Project manager is not interested in the Kanban team being busy. The intention and ambition of a project manager, including a Kanban project manager, are for the **Kanban team to be occupied with the proper activities, done correctly, and on-time to generate the expected business outcomes.**

A Kanban board makes processes and policies explicit. By viewing the Kanban board, the Kanban team and their stakeholders can build a proper understanding of how their Kanban workflow works and the status of Work In Progress (WIP) work.

Declaring Kanban policies explicitly clears the Kanban team's mind. Explicit Kanban policies should reflect what is important. They define which tasks the Kanban team can willingly ignore, so that they can focus on essential activities. What trade-offs in cost, speed, and quality, the Kanban team is ready to allow and under what conditions.

Here are some examples of explicit Kanban policies:

- Make the Kanban team members familiar with the flow of work.
- Create Definition of Done's (DoD) with their associated quality assurance checks in macro (workflow) and micro (workflow steps) levels.
- How to handle the backlog. Who can add items, who can prioritize, and how.
- How to handle new requirements from stakeholders.
- How to handle scope creep.
- How to handle impediments and situations when Kanban team members are blocked from doing their work.
- How to handle defects from work delivered in the past.

MANAGE KANBAN WORKFLOW

Kanban experts and Kanban managers are in charge of the active management of their Kanban workflow.

It's essential to be able to limit the number of Kanban cards located at specific steps of Kanban workflow. Yet, that's not enough to enable the flow.

Definition: Management of Kanban Workflow

All tasks performed to enable or improve the Kanban workflow can be defined as activities to manage Kanban workflows.

Some of these activities are:

- Kanban cards are pulled to a step of a workflow at the same rate as they're completed and leave.

- Kanban cards are never left to gain high work item ages without being processed by the Kanban team.
- Kanban team shifts priorities to handle several queed of blocked Kanban cards proactively.
- Kanban team take it seriously to meet their service level expectations (SLE), and they feel comfortable to give Just-In-Time (JIT) decisions while they do the work to proactively manage their workflow.
- Kanban team tracks their metrics, makes them transparent to their upstream, and downstream work centers as well. In this way, valuable feedback can be collected from surrounding teams whose workflows are interrelated to the workflow of the Kanban team.
- Work In Progress (WIP) Limits can be experimented and adjusted as well with consensus among Kanban experts and Kanban project managers. And yet, adjusting WIP cannot be imposed by higher-level management or leadership.

IMPLEMENT KANBAN FEEDBACK LOOPS

Demands from our business stakeholders get more challenging. Those demands change not only in terms of functional and non-function features but also their requirements related to time, budget, and quality.

To fulfill client needs and make them happy, our Kanban teams must enable quick, constant, and secure feedback loops from right to left in our Kanban workflow.

These feedback loops enable Kanban teams to promptly resolve impediments while they are tiny, inexpensive, and straightforward to eliminate.

Feedback loops create an enterprise knowledge practice while a Kanban team performs its tasks.

When errors occur, a Kanban team takes them as chances to gain new knowledge and increase the quality of software products and services they provide.

Why Does A Kanban Team Require Built-In Quality Assurance By Kanban Feedback Loops?

In software engineering, you are so far pretty clear that in a complex system, no one can know everything.

Even doing the same tasks twice does not yield the same results. Because this level of ambiguity of results is not sustainable in any market, companies build control and reliance on quality assurance.

Nonetheless, all these devices are not sufficient enough to circumvent errors and incidents.

Therefore, building an enterprise culture that makes products and services with built-in quality begins by acknowledging errors and deploying feedback loops to highlight them.

Identify Errors in Kanban Workflow While They Happen

If the feedback mechanism in Kanban workflow is late and rare, it is also slow and costly to counteract unwanted results. The goal of our Kanban team is to build fast feedback loops. When the work moves from left to right in Kanban workflow, it needs to continually provide feedback from right to left. Doing work with quality in your Kanban organization is all about building fast and reliable feedback loops.

When an issue happens, the Kanban team identifies it while it is the first time occurring in your Kanban workflow. Kanban team promptly fixes it, and the team continuously verifies the correlation between client expectations and the deliverables, so the Kanban team can fulfill these expectations and satisfy its clients.

Kanban feedback cycles do not only make it possible to remove impediments quickly, but they also help the Kanban team to learn from them and prevent those errors from happening in the future again.

Never Shift Quality Control Decisions Away From The Kanban Team

Pushing decisions about quality controls away from the Kanban team where the actual work is performed decreases quality, extends delivery lead times, reduces the health of feedback between cause and effect, and ultimately reduces the ability of your Kanban team to learn from their mistakes.

Kanban team members should be identifying, learning, fixing, and teaching about errors in their area of influence. Pair programming, peer reviews, automated testing, an inspection of code check-ins, internal checkpoints, widespread demonstrations should make quality assurance the accountability of the Kanban team instead of the sole liability of a dedicated and external quality assurance department.

IMPROVE KANBAN COLLABORATIVELY, EVOLVE KANBAN EXPERIMENTALLY

A Kanban team needs to build a self-diagnostics, self-learning, and self-improvement culture based on true collaboration and open-minded experimentation.

Addressing impediments for a Kanban team is not an exceptional state of work. Kanban doesn't treat errors as ill exceptions that shouldn't have happened in the first place. Errors are accepted part of daily practice to contribute to the continuous learning and improvement journey of your Kanban organization and your overall enterprise. A Kanban team multiplies the effects of these solutions for the problems it solves, by making them transparent, available, and easily accessible within the entire Kanban organization.

Instead of finger-pointing, accusing, and humiliating the ones who create problems, a Kanban team values actions to make impediments visible. Team members encourage organizational learnings from errors and inefficiencies, so everyone in the Kanban company can also discover and benefit from these obstacles, resolutions, and knowhow.

When members of a Kanban company feel safe about providing particulars about their errors, they willingly go the extra distance and spend a lot of drive to make sure that a comparable problem will not occur again in their work center and other work centers of their value stream. If engineers are penalized or even if they perceive that they are penalized when they make mistakes, then they will be worried about making mistakes. The end effect will be:

1. They perform less activity to make fewer mistakes.
2. They are not open about their work, difficulties, and results.
3. They are not incentivized to transform resolutions of difficulties into organizational learning.
4. It is guaranteed that the identical or related problem will repeatedly occur because

nobody ever uses time and drive to learn, distribute, and inform about issues and their resolutions and make them visible.

It is essential that Kanban team members and their respective business stakeholders involved in an incident completely accept this **"No blame, We are here to learn model"**.

Many organizations maintain considerable trouble to create such safe working environments. The FAA, for instance, has an Aviation Safety Reporting System, how pilots who make "mistakes" can get protection from regulative penalty if they choose to record those incidents on their own. Your Kanban organization should build such mechanisms to develop a transparent work and error culture.

Evolve Your Kanban Process and Business Result Experimentally

Before a Kanban team builds a complete product and shares its best practices towards the rest of the overall Kanban organization, Kanban team members should ask: **"Why should I make this?", "Is this deserving my time and resources?"**. You need to create and run the fastest and cheapest trials reasonable to verify if your ideas to improve processes, products, and features meet your expected business outcomes.

Instead of solely relying on your stomach and the best practices you and your Kanban team have been acquiring and monitoring so far, the focus must be getting actual people in the actual world to perform in your experiments.

Kanban project managers and their business stakeholders should see their product and feature ideas as well as their plans to improve their use of the Kanban process as hypotheses to be validated.

These hypotheses can be comprehensively planned, developed, and delivered only after they are rationally proven to be good ideas and business cases.

IS KANBAN AGILE SCRUM? (KANBAN IN AGILE - KANBAN WITH SCRUM)

Constraints Are What Makes A Process

One can relate tools by studying how many various instructions they provide. A prescriptive tool stands for "more instructions to regard", and an adaptive tool stands for "fewer instructions to regard".

A 100% prescriptive tool dictates that you don't have to give any decisions, and the tool has got instructions and rules for everything. On the other hand, a 100% adaptive tool lets you and your team do whatever you want because there are no instructions or restrictions. **It is very evident that both of these extremes are not practical in engineering and business.**

Agile processes are often referred to as lightweight processes, mainly because they are relatively less prescriptive compared to other conventional software development frameworks. Keep in mind that the first and foremost principle of the Agile Manifesto favors individuals and interactions over processes and tools.

Kanban and Scrum are highly adaptive processes. And yet, Kanban is more adaptive because Scrum dictates more limitations and instructions, thus it relatively less flexible than Kanban. As an example Scrum designates timeboxed development cycles (Sprints), whereas there are no timeboxed iterations in Kanban.

The value of a tool or process comes from how it limits your options while it's still giving you sufficient opportunities to build with quality, speed, and creativity.

Compare Tools To Get Best Out Of Them, Not To Judge Them

Similar to all other tools and processes, neither the Kanban framework nor the Scrum

framework is perfect. There is never a one size fits all solution. These processes won't necessarily indicate everything that you have to do to be successful with your project.

They merely present specific principles, instructions, and restrictions. As examples, Scrum compels you to run timeboxed Sprints with cross-functional teams, and Kanban compels you to employ visible boards and only restricts the extent of your Work In Progress (WIP) tasks.

One can mix the success or failure of projects with the quality of tools and processes.

It's essential to understand that:

- A project can deliver great results because of the fantastic tools and processes.
- A project can deliver great results despite the suboptimal and/or unfit tools and processes.
- A project can deliver poor results because of the suboptimal and/or unfit tools and processes.
- A project can deliver poor results despite the fantastic tools and processes.

Therefore, as trained and paid professionals, we ought to compare tools and processes to understand them better, not to judge them.

Pay explicit attention not to follow a process no matter what your given circumstances are. Only follow the path to build the best business value for your given project. Keep on continuously learning and adapting whenever necessary.

Don't Limit Your Organization To One Tool

That brings to the necessity of combining and adapting the tools as we require them!

Most Kanban and Scrum teams employ principles from XP (eXtreme Programming). Most Kanban teams practice daily standup meetings, which is a Scrum practice. Sprint backlog from Scrum concept has been borrowed from Kanban boards. Don't limit your organization to only one tool. Test and find out whatever works for you.

KANBAN VS SCRUM (KANBAN VERSUS AGILE SCRUM)

Here is a detailed comparison for Kanban vs Scrum. Let's get started with Kanban vs Scrum similarities first.
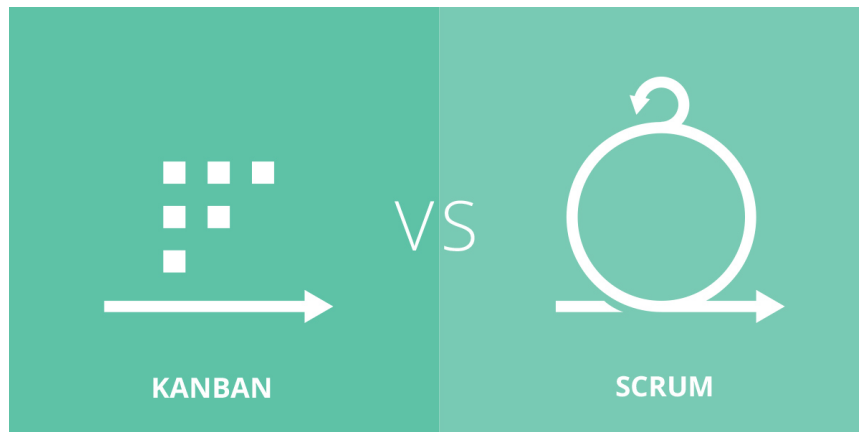
Similarities (Kanban vs Scrum)

- Kanban and Scrum are both Lean as well as Agile.

- Kanban and Scrum make use of pull organization instead of push organization.
- Kanban and Scrum both limit Work In Progress (WIP).
- Kanban and Scrum both utilize transparency to drive process renovation.
- Kanban and Scrum both concentrate on providing releasable software applications.
- Kanban and Scrum both function in self-organizing team structures.
- Kanban and Scrum both place value for splitting the requirements into smaller and digestible work items.
- Kanban and Scrum both support a release strategy that is continually enhancing based on empirical metrics.
- With both Kanban and Scrum, the teams choose how to manage the delegations in their small groups. Their duty and mission are to maintain the value stream efficiently flowing to their clients. So they can offer prompt responses to changing circumstances while they're building competitive products and services in reasonable budgets.

Differences (Kanban vs Scrum)

A detailed Comparison to see differences between Kanban and Scrum

Kanban	Scrum
Uses **"Lead Time"** metric to measure, optimize, and improve the speed of delivery.	Uses **"Velocity"** metric to measure, optimize, and improve the speed of delivery.
No specifications about the size of work items.	**Work items should be split** into reasonable sizes, so they fit in Scrum iterations (Sprints).
Work In Progress (WIP) Limited **for each step of the workflow.**	Work In Progress (WIP) Limited **for each Sprint.**
New work items are welcomed as long as WIP limits of workflow steps allow.	**No new work items are allowed** once a Sprint is ongoing.
Specifies no roles. And yet, to be able to become knowledgeable and stay competitive in their industries, Kanban team members are trained as **Kanban Experts or Kanban Project Managers.**	**Specifies 3 roles,** including Scrum Master, Scrum Product Owner, and Scrum Team (Member).
Prioritization and grooming are optional.	**Requires constant prioritization and grooming** of the product backlog.
Iterations are based on events (such as releases) rather than time.	**Iterations (Sprints) are time-boxed.**

Kanban	Scrum
Kanban board is persistent for a given project, product, or service.	**Scrum Board (Sprint Backlog) is rebuilt** for each Sprint.
Kanban teams commit to project goals, efficiency, and ultimate business outcomes.	**Scrum Teams commit** for Sprint goals.
Cross-functional teams, as well as expert teams, are allowed.	Requires **cross-functional teams**.
No charts are specified.	Requires **burn-down charts**.
Estimation is the duty of Certified Kanban Project Manager™ (Kanban-PM™) .	Requires **estimation from the Scrum team.**
A Kanban board could be shared by multiple organizations or teams.	**A Scrum Board (Sprint Backlog) belongs to one single Scrum team.**

Scrum vs Kanban Events

Scrum practices various conventional events (rituals).
Scrum Events and how they are replaced in Kanban are explained below.

Scrum Event	Purpose	How Often?	Kanban's Suggestion	How Often?
High Level Release Planning and Strategization	Product Owner is responsible for building initial backlog and release goals.	Done once for a specific project, product, or service.	Same practice as Scrum.	Done once for a specific project, product, or service.
Sprint Planning Meeting	Product Owner and Scrum Team choose the highest priority tasks and plan those.	In the beginning of each Sprint.	No replacement. Kanban team pulls items from Backlog as long as their WIP Limits allow.	No replacement in Kanban.
Daily Scrum (Daily Stand-up) Meeting	Scrum Team Members explain their progress, upcoming tasks, and issues.	Every day.	Similar practice as Scrum, but only the impediments are discussed. Progress and tasks are visible on a Kanban board.	Every day.
Sprint Review Meeting	Scrum Team demonstrates their deliverables to collect feedback.	In the end of each Sprint.	No replacement. Stakeholders can see the progress and actual status of the product anytime they want to.	No replacement in Kanban.
Sprint Retrospective Meeting	Identification of actions for process optimization.	In the end of each Sprint.	No replacement. Impediments and inefficiency of the flow are the highest priority tasks of a Kanban Team to address.	No replacement in Kanban.

PROBLEMS WITHOUT KANBAN

Here in this section, we want to briefly touch to typical challenges of an information work ecosystem that doesn't take the benefits of the Kanban framework.

- A negligent employee can be rewarded for speed, while he or she is causing expensive impediments due to incomplete deliverables.
- Teams participate in an extreme number of meetings concerning planning and processes.
- Delivery dates shift as requirements change; projects are rescheduled continuously, which requires extra planning and meetings.
- Quality goes unchecked for weeks or months, which produces a large volume of rework to fulfill even minimum quality expectations from stakeholders.
- Teams spend substantial time doing tasks that are unassociated to providing value to their clients.
- Problems age for months, if not years, before they are discovered, understood, and rectified.

These are only a few of downward spirals and vicious cycles almost every business and every professional live with.

Gartner estimates that companies worldwide waste yearly about 600 billion USD for non-budgeted and non-scheduled IT maintenance work to keep revenue-generating IT systems up and running.

To express this number with digits to see how it looks like: $600,000,000,000.-

As it should be apparent for you until this moment, this level of waste in a highly cognitive field such as information work and information technology is not easy to grasp.

That is a great challenge to tackle. Kanban has some answers for some organizations, maybe for your organization too.

Given that, your organization is ready to explore, learn, and change transparently.

SOLUTION WITH KANBAN

Kanban is an uncomplicated and easy-to-learn project control framework that was inspired from Toyota's just-in-time (JIT) scheduling methodology.

Kanban allows organizations to focus with all their time and resources on delivering business value to their clients rather than spending time and resources for oppressive tasks for project administration.

Kanban has the following advantages compared to other mainstream project management methodologies:

- Kanban reflects project workflow clearly, highlights bottlenecks of workflow the day they happen. Kanban ensures that Kanban team members resolve impediments immediately rather than piling them up before the workflow comes out of control state.
- Kanban enforces quality standards at each step of the workflow.

- Kanban ensures that Kanban team members are not allowed to prematurely close tasks.
- Kanban limits work in progress, clearing Kanban members to change their work contexts continually.
- Kanban has only on-demand basis planning meetings to focus on the real business results.

Kanban Service Level Expectation (SLE) - Kanban Classes Of Service

Kanban is a proven framework to establish reliable Kanban Service Level Expectations (SLEs) or so-called Kanban Classes of Services. What Kanban does is to simplify project management, reduce time spent on unproductive meetings, bottlenecks, and rework.

It enables organizations to command their quality goals better and make their throughput more predictable and consistent over time. Like all other processes, new Kanban teams need 3 to 5 weeks to adapt, and 4 to 6 months to stabilize their Kanban Service Level Expectations (SLE).

Risks Of Getting Started With The Kanban Framework
Changes Come With Risks. Kanban Is No Exception.
The Risks With Kanban and Their Plans for Mitigation.

Risks	Mitigations
Drop of productivity during the early stages of the Kanban adoption.	Set and reduce expectations of the planned throughput for the very early stages of the Kanban adoption.
Project management tools need adjustments.	The Kanban project manager proactively tests and identifies candidate tools that fit best to organizational requirements.
Issues from past releases and dependant projects can slow down Kanban adoption.	Kanban is a robust process to deal with impediments and dependencies. Mastering Kanban will reduce the risk of managing issues and dependencies.
Ongoing work started before the adoption of the Kanban framework can slow down the adoption.	Start the use of the Kanban framework with a new project or a new project stage.
Lack of experience with the Kanban framework.	Invest in training, coaching, Kanban certifications, and other professional services to speed up the adoption of the Kanban framework.
Resistance for change from Kanban team members.	Bring team members and influential people on-board to at least give a try with the Kanban framework.

HOW DO YOU START WITH KANBAN? STEP-BY-STEP GUIDE IN 6 STEPS

Now the next logical question in your mind might be how you can get started with Kanban. Here is a quick recipe.

Step-1: Conduct A Kanban Workshop

Talk to your team first. Highlight problems and pain points your team is dealing with and how Kanban can help you out.

Before anyone else, you need buy-in from your own team members.

Step-2: Address Stakeholders

Talk to your stakeholders. Make for them clear about the necessity of change. Let them build a clear vision about how this change would impact their collaboration with your team and how those will benefit them. Remember, no vision means no action and trust on their part.

Comfort your stakeholders that this would be a no-string-attached experiment in the first place to see if Kanban can be a good fit for the organization.

Step-3: Begin With What You Do Now

Avoid making massive changes and big bangs with particular ways you deliver your work. If you use specific tools to prepare and deliver your information work, stick to these while you're at the early stages of your Kanban adoption.

Don't make multiple changes for the sake of simplicity and not clouding the results of your Kanban adoption. Avoid multiple variables changing simultaneously.

Follow your routine and start using the Kanban framework as your scheduling, tracking, and monitoring tool.

Step-4: Target Incremental Change With Kanban

All other changes, great ideas for improvement, and optimization of your performance come one step at a time. Your first goal is to establish and stabilize the reliable Work In Progress (WIP) Limits for each step of your workflow. That will ultimately enable you to build, tune, and verify your Kanban Service Level Expectations (SLEs). Thus, your stakeholders will have a clear view of when they should expect deliverables from your Kanban team for a given requirement.

Once this is accomplished, you can experiment with other dimensions of your delivery process, tools, and techniques to further optimize and improve the performance of your Kanban team.

Step-5: Respect The Current Roles and Responsibilities

You need to show the same care to the roles and responsibilities of your people as you show to the processes. Especially at the early stages of your Kanban adoption, avoid moving and shifting roles and responsibilities of your Kanban team members. Let them first learn and digest the new way of executing their projects, while they're still doing what they used to do day-to-day before Kanban adoption.

Once this is established, required changes for roles and responsibilities will be self-evident and acceptable for everyone to honor desired WIP Limits and Kanban Service Level Expectations (SLEs).

Step-6: Motivate Acts of Leadership With Kanban At All Levels

Help your Kanban team members own their successes, but also their failures. Make them allies of business and your business goals. Please encourage them to learn from, teach, and inspire each other. Last but not least, don't ignore the importance of getting buy-in from your own leadership, which will ultimately play a decent role in making or breaking your successful Kanban initiative.

SCALED KANBAN (SCALING KANBAN)

Scaling Kanban (Scaled Kanban) involves no more than doing more further of the Kanban framework you have learnt so far.

Here are some guidelines which will lead you when your organization comes to a stage in which you require to scale your Kanban initiative.

Scaled Kanban Leadership

For any new system or control mechanism to live, there needs to be someone accountable for taking it in and retaining it in place.

That is what the Kanban experts and Kanban project managers should be doing in their organizations. They should be looking after the widespread adoption of the Kanban framework in the organization and take good care of it. Like any other process, Kanban won't also self-maintain itself.

Scaled Kanban Ownership

Elevating ownership stands for getting the team members to engage in building their Kanban boards because their association with it will be more connected and better encouraged by this.

If the Kanban board comes from Kanban team members and not from the higher-level management, it makes better sense for them to want to pursue and use it regularly. That primarily seeds the perception of control and self-organization to the work environment.

Scaling Kanban is not always straightforward, but it is manageable, as observed in many different instances.

Bear in mind that the overall objective for a scaled Kanban initiative is the improvement of the organization-wide processes. Relatively more straightforward methods to learn and use, such as Kanban and Scrum, can bring more clarity and effi ciency to organizations, given they are applied with discipline systematically.

Scaled Kanban Discipline

If your team has been using Kanban for some time, you and your team have already figured out that working with Kanban takes a persistent and disciplined effort.

That will remain intact when expanding the Kanban framework to the level of the entire organization. Kanban boards need modifications and enhancements as the process changes and evolves. Global and interdependent policies across multiple teams need constant monitoring, modifications, and optimizations.

Your aim is to make sure that the comparable practices apply to the bigger picture, which worked in a smaller Kanban organization.

That is your starting point for a scaled Kanban organization. The rest is continuous fine-tuning.

Scaled Kanban Levels

It is vital to organize your Kanban organization in a configuration that builds small, preferably cross-functional, self-sufficient, and autonomous teams.

Their sovereignty will inspire motivation, speed, and quality of work results. That will also promote their willingness to own the tasks and results. It's a reasonable idea to apply related policies and goals to different Kanban levels of your organizational workflow.

Yet it would be best if you still assured a certain degree of autonomy so that teams can forge their own workflows.

Scaled Kanban Policies

Adapt your Kanban policies to the bigger picture of your organization. Remember to preserve your original Kanban policies, which made your initial Kanban initiative successful in the first

place. With the growth of your Kanban organization, you need to keep the emerging teams small and self-sufficient. So they will have the ability to quickly form their micro policies and adapt to the policies from the macro-level of your organization.

It is the global Kanban culture that you want to keep persistent across all levels of your organization. The connection and collaboration between micro Kanban teams that build your overall Kanban organization will play a massive role in making your scaled Kanban initiative a success.

LESSONS LEARNT FROM KANBAN

While Work In Progress (WIP) reduces, bottle-necks, and impediments in upstream and downstream processes expose themselves.

Observe them and help your neighbor work centers fix them.

Your Kanban board will change and evolve while you move on. **Don't get with a certain Kanban board too much attached.** Be the first one to adapt to changing circumstances, then expect others to do the same.

Don't stop experimenting!

Setting up your Kanban process or your Kanban board is not your objective.

Your objective is continuous learning.

One of the greatest benefits of information work, especially software development and delivery, is the rapid feedback loops. Exploit them!

The only mistake you can do is delegate the responsibility of your dream job to the hands of others and expect them to build the greatest processes for you.

Don't be afraid of errors and mistakes along the way. Keep on learning from your own mistakes and the mistakes of others.

Start today with your Kanban initiative, improve, and evolve over there.

Never stop experimenting!

NEXT STEPS

How to Guarantee Your Position As A Successful Kanban and Scrum Professional

I feel that it's now my job to inspire you to actually implement and execute what you have learned from this material.

Let's face it: The big, vast IT industry is not going to accommodate you with more opportunities and more business without you taking some serious initial steps. The IT industry most likely doesn't even know you exist; up until now, you only operated as a small part of it, or you're just getting started. The government is not going to bail you out on your difficult days, and they certainly are not going to help you to advance and conquer on your career journey.

Taking the time to pick up this book and read it suggests that you truly do want to do something different. For this, I acknowledge and congratulate you. Well done to you on getting this book. I applaud you for reading it and even more for finishing it. Now, if you want the world to give you a standing ovation, put lessons in it to work.

Interestingly, one of the most effective ways of perfecting these disciplines is to help others attain success and implement these actions themselves. When people with common goals and motivations come together, they tend to learn faster and become a support system for one another. So gather a group of like-minded and highly driven people who refuse to live by the norms of the mediocre. Assemble a study group to read this book and brainstorm it with you. Ask your co-workers, employees and bosses to read this book as a team. Then help one another apply and commit to using the actions, hold one another accountable to these commitments.

Follow now International Scrum Institute™ LinkedIn® Company Page to get connected to other like-minded professionals who can empower and inspire you in your career.

Something tells me that you didn't pick up this book because you are comfortable or satisfied with where you're in your career. Chances are you want to change or improve your current position. Otherwise, you wouldn't have finished this book. Therefore, I will be happy to support you on your career journey!

Why Should You Get Your Kanban and Scrum Certifications Today?

Kanban and Scrum certifications are the testimony of your competence in the Kanban and Scrum processes.

Kanban and Scrum certifications acknowledge your demonstrated knowledge and outstanding expertise in Kanban and Scrum frameworks after formal multiple-choice test evaluations.

Kanban and Scrum processes have been offering immense benefits to millions of professionals until today. **Therefore, there is no reason that you won't join these accomplished men and women who upgraded their careers and skills with the help of the Kanban and Scrum frameworks.**

If you still wonder, I want to assure you that you can no longer imagine a growing career without possessing Kanban and Scrum certifications. It's regardless of your role, title, and experience in Information Technology (IT) ecosystem. You even don't have to be an IT professional anymore to understand what Kanban and Scrum are, how they work, and get your Kanban and Scrum certifications.

Your are a Five-Star Professional! You Must Be Acknowledged and Compensated Accordingly!

Whatever you do for a living, regardless you're part of an IT department or not, there is an essential and indisputable fact. **Your tasks and professional business value you've been serving for your organization are dependent on and interrelated to IT, software, and agile Kanban and Scrum processes and principles.**

Moreover, thanks to the shift of traditional business models into software as a service (SaaS) driven businesses or so-called digitalization movement, it's no longer a voluntary decision for any professional in or outside the IT department to get certified as a Kanban and Scrum professional. However, it's a must today to get your Kanban and Scrum certifications.

You may be just starting your career, or you may be a seasoned IT professional. That doesn't play a role. You need to get your Kanban and Scrum certifications.

Your role may or may not include people and functional management activities. It doesn't matter too; you still need to have your Kanban and Scrum certifications.

You should learn Kanban and Scrum frameworks and become an accomplished Kanban and Scrum Professional today by getting your Kanban and Scrum certifications.

The Pros Of Being An Accomplished Kanban and Scrum Professional

It's now the time to recap. If you didn't get a chance to read every word in this book, let me break down my thoughts. Here are my thoughts about the pros and cons of getting certified as a Kanban and Scrum professional.

1. The Pros for Employees, Freelancers, Coaches and Trainers

- Kanban and Scrum certifications will be your recognition of competence and up-to-date knowhow in Kanban and Scrum domains.
- Kanban and Scrum certifications will help you outcompete your peer group who do not develop themselves anymore. And remember,

they're a lot. It will help you get hired for your dream job as a certified and accomplished Kanban and Scrum professional.

- Kanban and Scrum certifications will broaden your perspective, and it will further open up your mind for continuous learning. It will help you get more responsibilities and fantastic career opportunities.
- Kanban and Scrum certifications will provide a brand new toolset with which you can deliver great products and services that your clients and employers would love.

2. The Pros for Organizations and Employers

- Kanban and Scrum Certifications will reduce costs by improving the efficiency of your teams, activities, and processes.
- Kanban and Scrum Certifications will help you win projects with your trained and skilled employees that you couldn't win otherwise.
- Kanban and Scrum Certifications will improve employee satisfaction and commitment by encouraging them to get trained and develop skills.
- Kanban and Scrum Certifications will improve the quality of your deliverables, customer satisfaction, and ultimately, the success and profitability of your organization.

Things To Remember After You Become An Accomplished Kanban and Scrum Professional

- Kanban and Scrum certifications shouldn't stop your learning. Don't forget that getting certified as a Kanban and Scrum professional is just the first step. In the spirit of "inspect and adapt" which you learned from Kanban and Scrum frameworks, it's still your duty and obligation to experiment, observe, and learn continuously.

- There is no one size fits all solution for all organizations around the world. The Kanban and Scrum frameworks are no exception to this rule. What we observed is that: Most

organizations that we're unable to get the best performance out of Kanban and Scrum frameworks have a common characteristic. These are the organizations that failed to adapt Kanban and Scrum to their own business and IT-ecosystems. Therefore, again in the spirit of "inspect and adapt", don't see Kanban and Scrum frameworks as a 100% guaranteed recipe for success. Please don't underestimate your cognitive ability to adapt it to the own dynamics of your business and IT. In fact, as a paid professional, this is what you're supposed to do to get the best throughput and business results by using Kanban and Scrum frameworks.

- Kanban and Scrum didn't solve all the problems we have in our IT departments. Don't stop developing yourself with **Newly emerging software development and delivery processes such as DevOps**. To better understand the known flaws of the Scrum framework and how DevOps handles them, have a look at this top article at a later moment: **What Are TOP 6 Differences Between DevOps and Scrum? (DevOps vs Scrum Comparison)**

In conclusion, Kanban and Scrum certifications are an excellent way to get started with agile software development and delivery practices.

Therefore, there will be no better time other than now for you to

- Start learning Kanban and Scrum frameworks,
- **Get yourself certified as a Kanban and Scrum Professional** with very affordable fees of International Scrum Institute™.

The only remaining question is, when are you going to get started?

Register Your Kanban & Scrum Certification >>>

★★★★★ **Written by Johan Swart on November 5th, 2019**

Excellent company to further your studies. They are the number one in professionalism and that personal touch. All info is always fast, accurate and to the point with no hidden costs. I truly enjoyed the experience and will enroll for a few other courses as well. My thanks to the team.

Johan Swart, Programmes Manager

★★★★★ **Written by Diana Karen Muñoz Sierra on September 23rd, 2019**

Scrum Institute's Certification helped me get a good overview of what the Agile methodologies are and how the Scrum methodology in organizations are being implemented today. Now I'm the Scrum Master for two important projects.

Diana Karen Muñoz Sierra, Mobile Developer

★★★★★ **Written by Simone Davi on September 17th, 2019**

If you hold a firm understanding of the Scrum framework and Agile principles, but you haven't taken the step to the Scrum certifications yet, the International Scrum Institute™ has the perfect value for money for you. Let me add that the cool thing is that the certification test is for testing the real life experience and less on dry theory. I did it and I do recommend it. Thanks International Scrum Institute™

Simone Davi, Self-Employed

★★★★★ **Written by Prafulla Karale on September 9th, 2019**

This certification from Scrum Institute definitely added weight to my resume. I literally started getting calls from recruiters from Linkedin.
Thanks for International Scrum Institute™ for this amazing initiative. I will recommend this others and my friends to go for this certification and boost their career.

Prafulla Karale, Project Manager (Atos-Syntel)

See More Reviews >>>

THANK YOU FOR LEARNING KANBAN

I would like to thank you again for taking the time to read The Kanban Framework. We hope that you enjoyed reading this book as much as we had enjoyed while we were writing it. It is our biggest pleasure if we managed to help you build a strong Kanban foundation for yourself.

We know that it's a very complex, overwhelming and overcrowded world with all Kanban and Scrum programs in the market.

And yet we managed to build our Kanban and Scrum training and certification programs more concrete, attractive, helpful, useful and simpler than others did. This is why we believe our valuable students choose International Scrum Institute™ over bureaucratic, complex, expensive and half-baked solutions of our competitors.

To get started with your Kanban and Scrum Certifications, click **Register Programs Today >>**

**Yeliz Obergfell,
International Scrum Institute™**