

# **Value Chain Hackers - Documentation**

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# **1 Welcome to Value Chain Hackers**

## 2 Welcome

Hello and a warm welcome to the Value Chain Hackers onboarding documentation! I'm Christiaan Verhoef, your guide, mentor, and fellow enthusiast in this exciting journey. Whether you're a student, mentor, or project manager, this guide is here to provide you with all the tools and insights you need to thrive in our vibrant community.

### 2.1 Our Mission

At Value Chain Hackers, we are on a mission to revolutionize the supply chain industry through relentless innovation, spirited collaboration, and hands-on practical application. We believe in empowering each individual to make meaningful contributions that drive real-world impact. Together, we will tackle the complexities of supply chains and transform challenges into opportunities.

### 2.2 What to Expect

Over the next 16 weeks, you'll dive into an immersive program designed to challenge your skills, broaden your horizons, and foster strong team dynamics. Here's a glimpse of what lies ahead:

- **Kick-off Hackathon:** Begin with an exhilarating one-day hackathon where you'll meet your team, brainstorm groundbreaking ideas, and set the stage for an unforgettable semester.
- **Bi-Weekly SCRUM Meetings:** Engage in regular check-ins to discuss progress, overcome obstacles, and ensure we are all aligned with our project goals.
- **Mentorship and Support:** Gain from the wisdom and experience of our dedicated mentors, who will act as your patrons, guiding you every step of the way.
- **Hands-On Projects:** Work on real-world supply chain problems, applying your skills and creativity to develop innovative solutions that make a difference.
- **Celebration and Recognition:** Conclude the semester with a grand closing ceremony where you'll showcase your findings, share your experiences, and celebrate your achievements together.

## 2.3 Getting Started

1. **Read the Documentation:** Dive into the program structure, roles, and responsibilities by reading through this comprehensive documentation.
2. **Join Our Communication Channels:** Connect with your peers and mentors on Discord and stay updated with official announcements via Nextcloud.
3. **Set Up Your Tools:** Ensure you have access to all necessary tools, including Taiga for project management, GitLab for version control, and Jitsi for virtual meetings.
4. **Participate Actively:** Immerse yourself in all scheduled activities, contribute to discussions, and collaborate with your team to maximize this learning experience.

## 2.4 Contact Information

If you have any questions or need assistance, don't hesitate to reach out:

- **Email:** [cg.verhoef@windesheim.nl](mailto:cg.verhoef@windesheim.nl)
- **Discord:** Join our server [here](#)

## 2.5 Conclusion

We are thrilled to have you on board and cannot wait to witness the amazing things you'll achieve as part of the Value Chain Hackers program. Together, let's embark on this transformative journey and make a lasting impact in the world of supply chain management!

Welcome to the team!

Christiaan Verhoef  
Value Chain Hackers Leader



## 3 Introduction

## 4 Introduction

Welcome to the Value Chain Hackers! In this program, you will embark on an exciting journey to revolutionize the supply chain industry through innovation, collaboration, and practical application. Our goal is to equip you with the tools, knowledge, and support you need to make meaningful contributions and drive real-world impact.

Throughout this program, you'll be challenged to think critically, work collaboratively, and apply your skills to solve complex supply chain problems. You'll have the opportunity to learn from experienced mentors, engage with industry experts, and collaborate with peers who share your passion for innovation.

Get ready to dive into a dynamic and immersive experience that will push your boundaries, expand your horizons, and prepare you to become a leader in the supply chain industry. Together, we'll transform challenges into opportunities and create a brighter future for supply chain management.

### 4.1 Inspiring Videos

To kickstart your journey, here are some inspiring videos that explore themes related to supply chains, innovation, and teamwork. These videos highlight the power of creativity, resilience, and collaboration in overcoming challenges and achieving success:

#### 4.1.1 How Wolves Change Rivers

An incredible story about how the reintroduction of wolves to Yellowstone National Park changed the entire ecosystem, illustrating the powerful impact of a single change in a system.



Figure 4.1: How Wolves Change Rivers

#### **4.1.2 Simon Sinek: How Great Leaders Inspire Action**

Simon Sinek discusses the concept of “Start With Why” and how leaders inspire action by focusing on their purpose and values.



Figure 4.2: How Great Leaders Inspire Action

#### 4.1.3 RSA ANIMATE: Drive: The surprising truth about what motivates us

An animated version of Dan Pink's talk on motivation, exploring the science behind what drives us to work harder and be more creative.

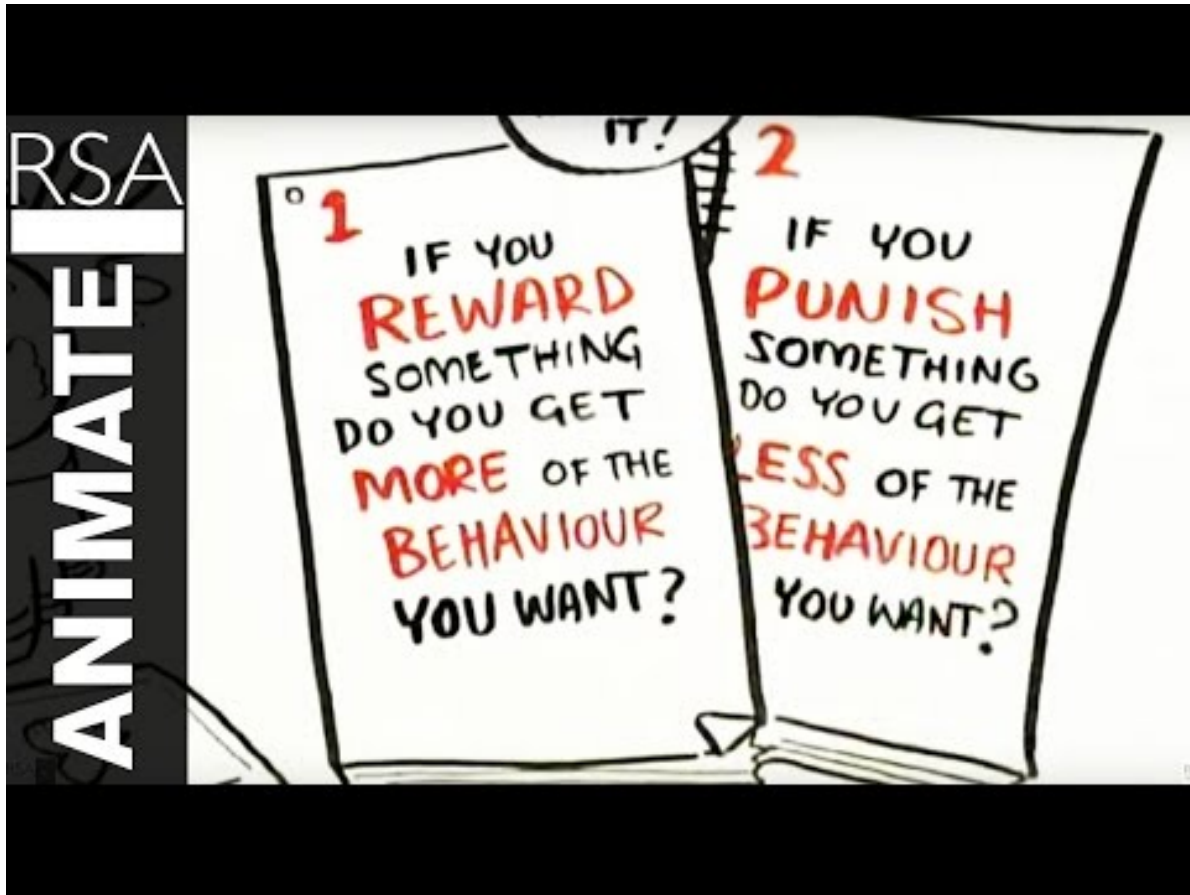


Figure 4.3: Drive: The surprising truth about what motivates us

#### 4.1.4 The Power of Vulnerability - Brené Brown

Brené Brown shares her research on vulnerability, highlighting its importance in fostering innovation, creativity, and change.



Figure 4.4: The Power of Vulnerability

These videos will not only inspire you but also provide valuable insights into innovation, resilience, and the power of teamwork. Enjoy watching them as you embark on your Value Chain Hackers journey!

Let's get started!

## 5 Why

# 6 Why

## 6.1 Why Value Chain Hackers

Welcome to Value Chain Hackers! We are on a mission to revolutionize the supply chain industry through innovation, collaboration, and practical application. By providing you with the necessary resources and building strong, agile teams, we ensure that our participants can make meaningful contributions to the field of supply chain management. Together, we'll tackle the complexities of supply chains and transform challenges into opportunities.

### 6.1.1 Unleashing Your Potential

Our program is all about unlocking your potential. We believe that every participant has unique strengths and talents that, when harnessed, can lead to extraordinary results. Through Value Chain Hackers, you'll have the opportunity to discover and develop your abilities in a supportive and dynamic environment.

### 6.1.2 Real-World Impact

We're not just playing around here—our goal is to make a real difference in the world. The supply chain industry is vast and complex, playing a crucial role in our daily lives. By improving supply chains, we can enhance efficiency, reduce waste, and create more sustainable practices. Your work here can lead to tangible, positive changes in the industry and beyond.

### 6.1.3 Innovation and Creativity

Innovation is at the heart of everything we do. We encourage you to think outside the box, experiment with new ideas, and push the boundaries of what's possible. This is your chance to bring fresh perspectives to the table and come up with creative solutions to challenging problems. Let's have fun with it and see where our imagination can take us!



### **6.1.4 Collaboration and Community**

One of the best parts of Value Chain Hackers is the sense of community. You'll be working alongside passionate individuals who are just as excited about supply chain innovation as you are. Together, we'll build a collaborative environment where ideas can flow freely, and everyone's contributions are valued. Whether it's through brainstorming sessions, hackathons, or casual chats over coffee, you'll find that the power of teamwork can lead to amazing breakthroughs.

## **6.2 Why Online Learning & Digital Lab**

### **6.2.1 Flexibility and Accessibility**

The digital lab provides unparalleled flexibility and accessibility. No matter where you are in the world, you can participate in our program. This allows us to bring together a diverse group of individuals, fostering a rich environment of different perspectives and ideas. Online learning means you can fit your participation around other commitments, ensuring you can engage fully without sacrificing other important aspects of your life.

### **6.2.2 Cutting-Edge Tools and Resources**

By leveraging digital platforms, we provide access to a range of cutting-edge tools and resources. From project management software like Taiga to collaboration tools like Nextcloud and Etherpad, you'll have everything you need at your fingertips. These tools not only facilitate efficient workflow but also enhance your learning experience.

### **6.2.3 Interactive and Engaging Content**

Our online learning approach is designed to be interactive and engaging. With virtual meetings via Jitsi, real-time document editing, and dynamic feedback systems, you'll be actively involved in your learning process. This keeps the experience lively and ensures that you're not just passively consuming information.

## **6.3 Why AI for Supply Chain**

### **6.3.1 Enhancing Efficiency**

AI has the power to transform supply chains by enhancing efficiency. From predictive analytics to automated decision-making, AI tools can help identify bottlenecks, optimize routes, and

forecast demand with greater accuracy. This leads to more efficient operations and significant cost savings.

### **6.3.2 Driving Innovation**

AI is at the forefront of technological innovation. By integrating AI into supply chain management, we open up new possibilities for problem-solving and process improvement. AI can analyze vast amounts of data quickly, providing insights that would be impossible to achieve manually. This drives innovation and helps us stay ahead of industry trends.

### **6.3.3 Improving Sustainability**

AI can also contribute to more sustainable supply chains. By optimizing resources and reducing waste, AI-driven solutions can help companies achieve their sustainability goals. This is increasingly important in a world where environmental considerations are critical to business success.

## **6.4 Why Scrum Agile Working Methodology**

### **6.4.1 Flexibility and Adaptability**

Scrum is all about flexibility and adaptability. In a fast-paced industry like supply chain management, the ability to pivot quickly in response to changing conditions is crucial. Scrum provides a framework that allows teams to respond to changes efficiently, ensuring that projects stay on track even when unexpected challenges arise.

### **6.4.2 Enhancing Team Collaboration**

Scrum emphasizes teamwork and collaboration. By working in sprints and holding regular stand-up meetings, team members stay aligned and engaged. This fosters a collaborative environment where everyone's input is valued, and the collective effort leads to better outcomes.

### **6.4.3 Continuous Improvement**

One of the core principles of Scrum is continuous improvement. Through regular retrospectives, teams reflect on their processes and identify areas for enhancement. This commitment to ongoing improvement ensures that we are always striving to be better, delivering higher quality results with each iteration.

#### **6.4.4 Clear Goals and Accountability**

Scrum provides clear goals and accountability. Each sprint has specific objectives, and team members know exactly what is expected of them. This clarity helps keep everyone focused and motivated, driving progress and ensuring that we meet our targets effectively.

## 7 How

## **8 How**

### **8.1 How Do We Ensure Our Feedback Is Taken Seriously?**

#### **8.1.1 Clear Communication**

To ensure our feedback is taken seriously, we prioritize clear and concise communication. We use structured feedback forms and ensure that all comments are actionable and specific. This way, our suggestions are easy to understand and implement.

#### **8.1.2 Constructive Criticism**

We focus on providing constructive criticism that is aimed at helping teams improve. By highlighting strengths along with areas for improvement, we create a balanced feedback environment that encourages growth and development.

#### **8.1.3 Regular Feedback Sessions**

Regular feedback sessions are scheduled to ensure continuous improvement. These sessions provide an opportunity for open dialogue between students, mentors, and project managers, fostering a culture of trust and collaboration.

### **8.2 How Can We Make Students Report More Often?**

#### **8.2.1 Streamlined Reporting Tools**

We provide easy-to-use reporting tools like Taiga for project management and Nextcloud for document sharing. These tools simplify the reporting process, making it quick and efficient for students to submit their progress updates.

### **8.2.2 Gamification**

To make reporting more engaging, we incorporate gamification elements. Students can earn points and badges for timely and thorough reports, which can be redeemed for rewards or recognition at the end of the semester.

### **8.2.3 Regular Check-Ins**

We schedule regular check-ins to keep students on track. These bi-weekly SCRUM meetings ensure that everyone is aligned with their goals and any issues are addressed promptly.

## **8.3 How Can We Get Teachers to Act as Coaches in Our Project?**

### **8.3.1 Roman-Patreon Model**

We adopt the Roman-Patreon model, where experienced teachers act as mentors (patrons) to students (protégés). Teachers are matched with students based on their expertise and interests, fostering a supportive mentor-mentee relationship.

### **8.3.2 Incentives for Teachers**

We provide incentives for teachers to participate as coaches. This can include professional development opportunities, recognition in the academic community, and tangible rewards like gift vouchers or certificates of appreciation.

### **8.3.3 Collaborative Workshops**

We organize collaborative workshops where teachers and students can work together on projects. These workshops provide a platform for teachers to share their knowledge and guide students through practical, hands-on activities.

## **8.4 How Can We Motivate Students Sufficiently?**

### **8.4.1 Engaging Activities**

We incorporate fun and engaging activities throughout the program. From icebreakers and team-building exercises to themed hackathons and social events, there's always something exciting happening to keep students motivated.

### **8.4.2 Recognition and Rewards**

We recognize and reward students for their hard work and achievements. This includes certificates of achievement, internship opportunities, and gift vouchers for outstanding performance.

### **8.4.3 Clear Goals and Milestones**

We set clear goals and milestones to keep students focused and motivated. By breaking down projects into manageable tasks and celebrating each milestone, we create a sense of progress and accomplishment.

### **8.4.4 Supportive Community**

We foster a supportive community where students feel valued and encouraged. Open communication channels, regular mentorship sessions, and peer support groups help create an environment where everyone can thrive.

## **8.5 Tracking Projects in a Digital Space**

### **8.5.1 Project Management Tools**

We use Taiga, an open-source agile project management platform, to manage tasks, sprints, and backlogs. This tool helps students stay organized and track their progress in real-time.

### **8.5.2 Collaborative Platforms**

Nextcloud and Etherpad are our go-to tools for collaboration. These platforms allow students to share documents, edit them in real-time, and keep track of changes, ensuring seamless teamwork.

### **8.5.3 Regular Updates**

Students are encouraged to provide regular updates on their progress. This can be done through bi-weekly SCRUM meetings, monthly consortium meetings, and real-time updates on our digital platforms.

### **8.5.4 Visual Dashboards**

We provide visual dashboards that display project progress, upcoming tasks, and completed milestones. These dashboards make it easy for students to see their achievements and stay motivated.

## **8.6 Conclusion**

By implementing these strategies, we ensure that our feedback is valued, students are engaged and motivated, and projects are effectively tracked in a digital space. Together, we create a dynamic and supportive environment where innovation and collaboration thrive. Let's make this journey exciting and impactful!



## 9 What

# 10 What

## 10.1 What We Do at Value Chain Hackers

### 10.1.1 Real-World Projects

At Value Chain Hackers, we engage in real-world supply chain projects that address actual industry challenges. These projects provide a practical, hands-on learning experience that goes beyond theoretical knowledge. You'll work on tasks that have real impact and contribute to meaningful solutions in the supply chain sector.

### 10.1.2 Agile-Scrum Methodology

We utilize the Agile-Scrum methodology to manage our projects. This approach ensures that our work is structured, iterative, and flexible, allowing us to adapt to changes quickly and efficiently. Here's a brief overview of the Scrum process:

- **Product Backlog:** A prioritized list of project tasks and requirements.
- **Sprint Planning:** A collaborative meeting to select tasks for the upcoming sprint.
- **Sprint Backlog:** The list of tasks committed to be completed in the sprint.
- **Daily Scrum:** A short, daily meeting to synchronize activities and plan the next 24 hours.
- **Development Work:** The actual work done during the sprint to achieve the sprint goal.
- **Increment:** The sum of all completed backlog items during a sprint.
- **Sprint Review:** A meeting at the end of the sprint to inspect the increment and adapt the backlog.
- **Sprint Retrospective:** A meeting to reflect on the sprint process and identify improvements.

For a detailed breakdown of the Scrum process, refer to the [Scrum Process](#) page.

### **10.1.3 Digital Lab and Online Learning**

Our digital lab provides a flexible and accessible learning environment. With tools like Nextcloud, Etherpad, and Jitsi, you'll collaborate seamlessly with your team, regardless of location. This setup ensures that you can engage with the program while balancing other commitments.

### **10.1.4 AI and Innovation**

We integrate AI technologies to enhance our supply chain projects. AI helps in analyzing vast amounts of data, optimizing processes, and predicting future trends. By incorporating AI, we stay at the forefront of innovation and ensure that our solutions are cutting-edge.

### **10.1.5 Continuous Improvement**

Continuous improvement is a core principle of our methodology. Through regular sprint retrospectives and feedback sessions, we constantly seek ways to enhance our processes and outcomes. This iterative approach ensures that we are always learning and improving.

### **10.1.6 Fun and Engaging Activities**

We believe in making the learning experience enjoyable. Throughout the program, we host various activities to keep things lively and engaging. From icebreakers and themed hackathons to social events and team-building exercises, there's always something fun happening to keep you motivated.

### **10.1.7 Recognition and Rewards**

Your hard work and achievements are recognized and rewarded. Whether it's through certificates, internships, or other tangible rewards, we ensure that your contributions are valued. This recognition not only motivates you but also adds to your professional portfolio.

### **10.1.8 Community and Collaboration**

Building a strong community is key to our success. You'll collaborate with peers, mentors, and industry experts, creating a network of support and shared learning. This community-driven approach fosters a sense of belonging and encourages collective growth.

### 10.1.9 Inspiring Resources

We provide a wealth of resources to inspire and inform you. This includes access to industry reports, academic papers, and inspiring videos that explore themes related to supply chains, innovation, and teamwork. Check out these videos to get started:

- **The Value of Supply Chain Management:** A comprehensive overview of the impor-



tance of supply chains in today's economy.

- **The Power of Data in Supply Chains:** How data analytics is transforming the



supply chain industry.

- **Inside the Amazon Warehouse:** An inside look at the logistics and operations of



Amazon's fulfillment centers.

- **The Future of AI in Supply Chain Management:** Exploring the potential of AI



to revolutionize supply chains.

## 10.2 Conclusion

The Value Chain Hackers program is a comprehensive, engaging, and impactful journey into the world of supply chain management. By integrating real-world projects, Agile-Scrum methodology, AI technologies, and a supportive community, we ensure that you have everything you need to succeed. Let's make this experience memorable and transformative!

Welcome to the Value Chain Hackers community!

## 11 Tools

# 12 Tools

## 12.1 Essential Tools for Value Chain Hackers

In the Value Chain Hackers program, we leverage a variety of open-source and self-hosted tools to facilitate collaboration, project management, communication, and more. Here's an overview of the tools you'll be using:

### 12.1.1 Communication

- **Nextcloud:** An open-source platform for file sharing and collaboration. Use it for sharing documents, managing calendars, and more. [Nextcloud](#)
- **Discord:** An online communication tool that integrates seamlessly with our digital workspace, perfect for instant messaging and voice/video calls. [Discord](#)

### 12.1.2 Project Management

- **Taiga:** An open-source agile project management platform. Manage tasks, sprints, and backlogs with ease. [Taiga](#)

### 12.1.3 Collaboration

- **Etherpad:** An open-source collaborative text editor for real-time document editing. Great for working together on documents. [Etherpad](#)
- **Nextcloud:** Also used for file sharing and collaboration. [Nextcloud](#)

#### 12.1.4 Version Control

- **GitLab:** An open-source Git repository management platform for version control and collaboration. [GitLab](#)
- **SmartGit:** A graphical Git client with support for GitHub, Bitbucket, and GitLab. [SmartGit](#)
- **GitHub:** Another popular open-source Git repository hosting service. [GitHub](#)

#### 12.1.5 Document Creation

- **LibreOffice:** An open-source office suite for creating documents, spreadsheets, and presentations. [LibreOffice](#)
- **Quarto:** A tool for creating dynamic documents from Markdown. [Quarto](#)
- **Zotero:** An open-source reference management software for organizing research sources and citations. [Zotero](#)

#### 12.1.6 Virtual Meetings

- **Jitsi:** An open-source video conferencing platform for hosting virtual meetings and webinars. [Jitsi](#)
- **BigBlueButton:** An open-source web conferencing system designed for online learning and collaboration. [BigBlueButton](#)

#### 12.1.7 Survey and Feedback

- **LimeSurvey:** An open-source online survey software for creating and conducting surveys and assessments. [LimeSurvey](#)
- **Moodle:** An open-source learning management system for creating online courses and assessments. [Moodle](#)



### 12.1.8 Learning Management Systems (LMS)

- **Moodle:** Highly customizable and widely used, supporting course management, assessment tools, and collaborative activities. [Moodle](#)
- **Canvas LMS:** Known for its user-friendly interface and support for multimedia content. [Canvas LMS](#)
- **Chamilo:** Designed for schools, universities, and corporate training, offering course creation, assessments, communication tools, and reporting. [Chamilo](#)
- **ILIAS:** Focused on usability and accessibility, suitable for various educational settings. [ILIAS](#)
- **Open edX:** Developed by edX, providing tools for creating and delivering online courses, including interactive content and discussion forums. [Open edX](#)
- **Claroline:** Focuses on simplicity and ease of use, suitable for small to medium-sized organizations. [Claroline](#)
- **ATutor:** Designed with accessibility in mind, providing features for creating accessible content and adaptive learning. [ATutor](#)

### 12.1.9 Design and Creativity

- **Edraw:** A powerful diagramming tool for creating flowcharts, mind maps, and more. [Edraw](#)
- **Penpot:** An open-source design and prototyping platform. [Penpot](#)

### 12.1.10 Note Taking

- **Etherpad:** A collaborative text editor for real-time document editing. [Etherpad](#)
- **Privnote:** A tool for creating notes that will self-destruct after being read. [Privnote](#)

## 12.2 Conclusion

These tools are essential for the successful execution of your projects within the Value Chain Hackers program. Familiarize yourself with each tool, as they will be integral to your workflow and collaboration efforts. Let's make the most of these resources to innovate and drive impactful change in the supply chain industry!

## 13 Student Flow

# 14 Student Flow

Welcome to the Value Chain Hackers program! Here's a detailed flow of your journey through the semester, designed to ensure you get the most out of this experience. Let's dive in!

## 14.1 1. Kick-off Hackathon

### 14.1.1 Meet Your Team

- **Objective:** Get to know your teammates, mentors, and project managers.
- **Activities:** Icebreakers, team-building exercises, and brainstorming sessions.
- **Outcome:** Establish initial commitments and project goals.

## 14.2 2. Project Initialization

### 14.2.1 Set Up Your Tools

- **Objective:** Ensure you have access to all necessary tools.
- **Tools:** Taiga for project management, GitLab for version control, Nextcloud for file sharing, Jitsi for virtual meetings, and Etherpad for real-time collaboration.
- **Outcome:** Familiarize yourself with the tools and their functionalities.

### 14.2.2 Initial Planning

- **Objective:** Plan your project and define the scope.
- **Activities:** Create a project roadmap, assign tasks, and set deadlines.
- **Outcome:** A clear project plan with defined milestones.

## 14.3 3. Bi-Weekly SCRUM Meetings

### 14.3.1 Regular Check-ins

- **Objective:** Discuss progress, tackle challenges, and ensure alignment with project goals.
- **Activities:** Stand-up meetings, progress reports, and problem-solving sessions.
- **Outcome:** Stay on track and address any issues promptly.

Refer to the [Scrum Process](#) for more details on the key components and cycle of SCRUM.

## 14.4 4. Ongoing Mentorship and Support

### 14.4.1 Mentor Sessions

- **Objective:** Receive guidance and support from experienced mentors.
- **Activities:** One-on-one meetings, feedback sessions, and collaborative problem-solving.
- **Outcome:** Gain valuable insights and improve your project continuously.

## 14.5 5. Monthly Cohesion Meetings

### 14.5.1 Strengthen Teamwork

- **Objective:** Strengthen the bond within your team and address any issues.
- **Activities:** Team-building exercises, open discussions, and collaborative activities.
- **Outcome:** Enhanced teamwork and a supportive team environment.

## 14.6 6. Consortium Meetings

### 14.6.1 Share Progress and Exchange Ideas

- **Objective:** Share your progress with external stakeholders and receive feedback.
- **Activities:** Presentations, Q&A sessions, and collaborative discussions.
- **Outcome:** Valuable feedback and new ideas to improve your project.

## 14.7 7. Quarterly Status Updates

### 14.7.1 Assess and Prepare

- **Objective:** Assess your progress and prepare for upcoming milestones.
- **Activities:** Status update meetings, milestone reviews, and planning sessions.
- **Outcome:** Stay aligned with project goals and prepare for key presentations.

## 14.8 8. Semester Closing

### 14.8.1 Final Presentations

- **Objective:** Present your work, findings, and recommendations.
- **Activities:** Formal presentations, Q&A sessions, and feedback discussions.
- **Outcome:** Showcase your achievements and receive recognition for your hard work.

### 14.8.2 Celebration and Networking

- **Objective:** Celebrate your achievements and network with peers, mentors, and industry professionals.
- **Activities:** Dinner, drinks, and social events.
- **Outcome:** Build lasting connections and celebrate the end of a successful semester.

## 14.9 9. Continuous Improvement

### 14.9.1 Reflect and Improve

- **Objective:** Reflect on your experiences and identify areas for improvement.
- **Activities:** Retrospective meetings, feedback sessions, and personal reflections.
- **Outcome:** Learn from your experiences and prepare for future challenges.

Refer to the [Scrum Process](#) to understand the continuous improvement mechanisms embedded in the SCRUM methodology.

## 14.10 Conclusion

Your journey through the Value Chain Hackers program is designed to be dynamic, engaging, and impactful. By following this flow, you'll gain valuable skills, make meaningful contributions, and have a fantastic time along the way. Let's embark on this exciting journey together!

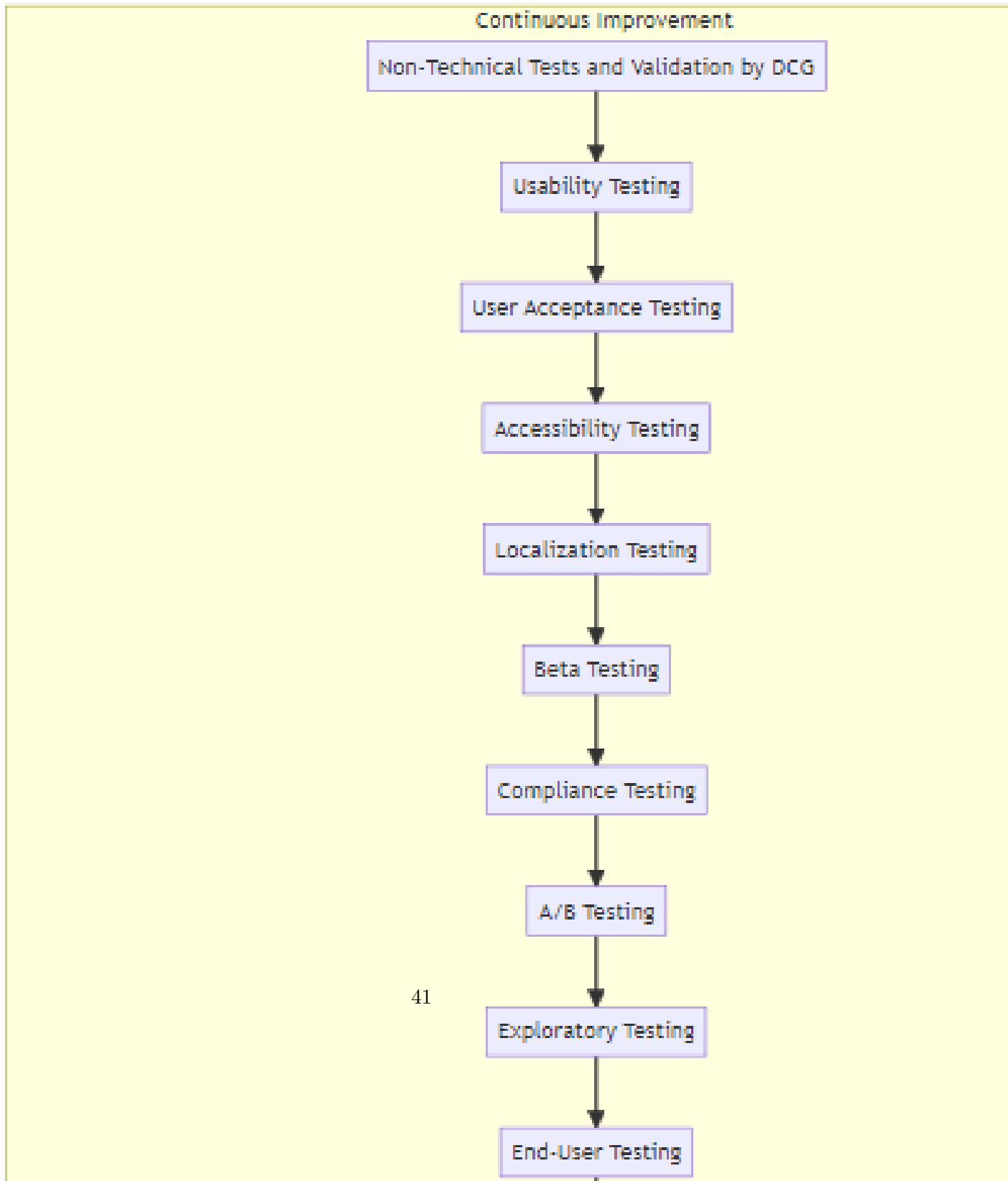
## 15 Scrum Process





# 16 Scrum Process

## 16.1 Key Components of Scrum



### ### Product Backlog

The Product Backlog is an ordered list of everything that might be needed in the product and

### ### Sprint Planning

Sprint Planning is a collaborative meeting where the Scrum Team discusses what can be delivered

### ### Sprint Backlog

The Sprint Backlog is a list of tasks that the Scrum Team commits to completing during the sprint

### ### Daily Scrum

The Daily Scrum is a short, time-boxed meeting (usually 15 minutes) where the team synchronizes

### ### Development Work

During the sprint, the Scrum Team works on the tasks in the Sprint Backlog to create a potentially

### ### Increment

An Increment is the sum of all the Product Backlog items completed during a sprint and all previous

### ### Sprint Review

The Sprint Review is held at the end of the sprint to inspect the increment and adapt the Product

### ### Sprint Retrospective

The Sprint Retrospective is an opportunity for the Scrum Team to inspect itself and create a plan for

### ### Product Backlog Refinement

Product Backlog Refinement is the ongoing process of reviewing and amending the Product Backlog

## ## Scrum Cycle

### ### Start with the Product Backlog

The Product Owner maintains and prioritizes the Product Backlog based on stakeholder input and

### ### Sprint Planning

The Scrum Team selects items from the Product Backlog for the Sprint Backlog, defines the sprint

### ### Daily Scrum Meetings

The team meets daily to synchronize efforts, identify impediments, and adjust plans as needed

### ### Development Work

The team works on tasks in the Sprint Backlog, aiming to create a potentially shippable product

### ### Sprint Review

At the end of the sprint, the team reviews the increment with stakeholders and adapts the Product Backlog.

### ### Sprint Retrospective

The team reflects on the sprint process, identifies improvements, and plans for the next sprint.

### ### Repeat

The cycle repeats with the next Sprint Planning meeting, building upon the continuous improvement.

## ## Why

The European Union (EU) emphasizes innovation, efficiency, and high-quality outputs in its funding programs.

## ## How

Agile-Scrum achieves these objectives through its dynamic and responsive framework. By utilizing iterative development and frequent communication, teams can adapt to changing requirements and deliver high-quality results.

## ## What

By adopting Agile-Scrum, EU-funded projects can significantly increase their success rates and deliverables.

### ### 1. Flexibility and Responsiveness to Change

#### #### Dynamic Market Needs

- **Traditional Approach:** The Waterfall model, commonly used in traditional EU-funded projects, requires a fixed scope and timeline.
- **Agile-Scrum:** Agile methodologies, particularly Scrum, are designed to handle change. Scrum allows for frequent releases and adjustments to the product backlog.

#### #### Empirical Process Control

- **Traditional Approach:** Relies on a detailed upfront specification and planning, which can be rigid and slow to adapt.
- **Agile-Scrum:** Uses an empirical process control model, which emphasizes inspection, adaptation, and frequent releases.

### ### 2. Incremental Delivery and Early Value Realization

#### #### Incremental Value Delivery

- **Traditional Approach:** Often, deliverables in traditional projects are only produced towards the end of the project.
- **Agile-Scrum:** Emphasizes incremental delivery of product increments at the end of each sprint, allowing for early value realization.

#### #### Risk Mitigation

- **Traditional Approach:** Risk is often identified and managed through extensive planning and documentation.

- **Agile-Scrum:** By delivering work in small, manageable increments and continuously integrating

### 3. Enhanced Stakeholder Collaboration and Communication

#### Engagement and Transparency

- **Traditional Approach:** Stakeholder engagement typically occurs at predetermined milestones
- **Agile-Scrum:** Involves stakeholders throughout the project lifecycle through regular sprint reviews

#### Collaborative Environment

- **Traditional Approach:** Often promotes siloed work environments where teams may work in isolation
- **Agile-Scrum:** Encourages a collaborative, cross-functional team environment. Teams work together on shared goals

### 4. Continuous Improvement and Quality Focus

#### Iterative Quality Assurance

- **Traditional Approach:** Quality assurance is typically a distinct phase near the end of the project
- **Agile-Scrum:** Integrates continuous testing and quality assurance into each sprint. This allows for early identification and resolution of issues

#### Retrospective Culture

- **Traditional Approach:** Project evaluations and lessons learned sessions are usually conducted at the end of the project
- **Agile-Scrum:** Incorporates regular sprint retrospectives, allowing the team to reflect on their performance and make improvements

## Why Scrum is Right for This EU Funding Call

### 1. Alignment with EU's Innovation Goals

#### Flexibility and Responsiveness to Change

- **EU Perspective:** The European Union emphasizes innovation and adaptability in its funding programs
- **Supporting Data:** Agile projects are roughly twice as likely to succeed compared to traditional projects

### 2. Efficient Use of Resources

#### Incremental Delivery and Early Value Realization

- **EU Perspective:** The EU aims to maximize the impact of its funding by ensuring that projects deliver value early and incrementally

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graph TD
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A[Product Backlog] -->|Select Items| B[Sprint Planning]
B --> C[Sprint Backlog]
C --> D[Daily Scrum]
D --> E[Development Work]
E --> F[Increment]
F --> G[Sprint Review]
G --> H[Sprint Retrospective]
H --> I[Product Backlog Refinement]
I --> B

subgraph Sprint
    C --> D
    D --> E
    E --> F
    F --> G
    G --> H
    H --> I
end

subgraph Project Initiation
    A1[Kickoff Meeting] --> A2[Project Charter]
    A2 --> A3[Communication Plan]
    A3 --> A4[Project Management Tool Setup]
    A4 --> A
end

subgraph Exploration and Planning Phase
    B1[Exploration Meetings] --> B2[User Stories]
    B2 --> B3[User Personas]
    B3 --> B4[Journey Maps]
    B4 --> B5[Sprint 0 Planning]
    B5 --> B6[Product Backlog]
    B5 --> B7[Definition of Done]
    B5 --> B8[Sprint Plan]
end

subgraph Sprint Execution Phase
    C1[Sprint Planning Meetings] --> C2[Sprint Backlog]
    C2 --> C3[Sprint Goal]
    C4[Daily Stand-Up Meetings] --> C5[Daily Status Updates]
    C5 --> C6[Issue Log]
    C7[Sprint Review Meetings] --> C8[Increment]
    C8 --> C9[Stakeholder Feedback]

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    C10[Sprint Retrospective Meetings] --> C11[Retrospective Report]
    C11 --> C12[Improvement Plan]
end

subgraph Product Development Specifics for WP 3.2
    D1[System Architecture Design Workshops] --> D2[System Architecture Document]
    D3[Smart Contract Development Sessions] --> D4[Smart Contract Code]
    D4 --> D5[Smart Contract Documentation]
    D6[UI/UX Design Workshops] --> D7[UI Wireframes]
    D7 --> D8[UI Mockups]
    D8 --> D9[Developed UI Components]
    D10[Integration Planning Meetings] --> D11[Integration Plan]
    D11 --> D12[Implemented APIs]
end

subgraph Quality Assurance and Testing
    E1[Testing Planning Meetings] --> E2[Test Plans]
    E2 --> E3[Test Cases]
    E4[Regular Testing Sessions] --> E5[Unit Testing Report]
    E5 --> E6[Integration Testing Report]
    E6 --> E7[Performance Testing Report]
    E7 --> E8[Security Testing Report]
    E8 --> E9[Compatibility Testing Report]
    E9 --> E10[Regression Testing Report]
    E10 --> E11[Load Testing Report]
    E11 --> E12[Stress Testing Report]
end

subgraph Documentation and Training
    F1[Documentation Workshops] --> F2[System Documentation]
    F3[Training Sessions] --> F4[Training Materials]
    F4 --> F5[Training Reports]
    F6[SDA Bocconi Training] --> F7[Introductory Training on Framework]
end

subgraph Continuous Improvement
    G1[Ongoing Retrospective Meetings] --> G2[Continuous Improvement Plan]
    G3[Non-Technical Tests and Validation by DCG] --> G4[Usability Testing]
    G4 --> G5[User Acceptance Testing]
    G5 --> G6[Accessibility Testing]
    G6 --> G7[Localization Testing]
    G7 --> G8[Beta Testing]
    G8 --> G9[Compliance Testing]

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G9 --> G10[A/B Testing]
G10 --> G11[Exploratory Testing]
G11 --> G12[End-User Testing]
G12 --> G13[Scenario-Based Testing]
G13 --> G14[GUI Testing]
G14 --> G15[Documentation Testing]
G16[Maintenance Strategy by VIRIDIS] --> G17[Maintenance Strategy Document]
end

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## 17 Roles



# 18 Roles

In the Value Chain Hackers program, each participant has a specific role that contributes to the overall success of the projects. Understanding these roles and their responsibilities is crucial for effective collaboration and achieving our goals.

## 18.1 Key Roles and Responsibilities

### 18.1.1 1. Project Manager

**Responsibilities:** - Oversee project planning, execution, and delivery. - Coordinate between different teams and stakeholders. - Ensure that project timelines and goals are met. - Facilitate communication and resolve conflicts within the team. - Conduct regular check-ins and provide updates on project progress.

### 18.1.2 2. Product Owner

**Responsibilities:** - Define the project vision and objectives. - Maintain and prioritize the product backlog. - Ensure that the team is working on the highest-value tasks. - Collaborate with stakeholders to gather requirements and feedback. - Make decisions regarding the scope and features of the product.

### 18.1.3 3. Scrum Master

**Responsibilities:** - Facilitate Scrum ceremonies (Sprint Planning, Daily Scrum, Sprint Review, Sprint Retrospective). - Remove impediments and obstacles that hinder team progress. - Ensure that the team follows Agile principles and practices. - Coach the team on continuous improvement and self-organization. - Protect the team from external distractions and interruptions.

#### 18.1.4 4. Team Member

**Responsibilities:** - Actively participate in all Scrum ceremonies. - Collaborate with other team members to complete tasks and achieve sprint goals. - Deliver high-quality work that meets the Definition of Done. - Continuously seek ways to improve skills and knowledge. - Communicate effectively and openly with the team.

#### 18.1.5 5. Mentor

**Responsibilities:** - Provide guidance and support to the team members. - Share expertise and knowledge relevant to the project. - Help team members overcome challenges and obstacles. - Offer feedback and suggestions for improvement. - Act as a role model and inspire the team to achieve their best.

#### 18.1.6 6. Stakeholder

**Responsibilities:** - Provide input and feedback on project requirements and deliverables. - Review progress and outcomes during Sprint Reviews. - Ensure that the project aligns with organizational goals and needs. - Support the team by providing resources and removing barriers. - Engage with the team regularly to stay informed about the project status.

### 18.2 Roman Patronage Model

In our program, we draw inspiration from the Roman patronage model to enhance teacher involvement. Teachers act as patrons, providing students with guidance, resources, and support throughout the project. This model fosters a mentor-mentee relationship, where teachers:

- Offer their expertise and experience to guide students.
- Help students navigate challenges and develop their skills.
- Provide regular feedback and constructive criticism.
- Encourage students to take ownership of their learning and growth.
- Create a supportive and motivating learning environment.

### 18.3 Tracking Projects in a Digital Space

To ensure transparency and accountability, we use various digital tools to track project progress and facilitate collaboration. These tools include:

- **Taiga:** For project management and task tracking.

- **Nextcloud:** For file sharing and collaboration.
- **Etherpad:** For real-time document editing and collaboration.
- **GitLab:** For version control and code collaboration.
- **Jitsi:** For virtual meetings and video conferencing.

By leveraging these tools, we create a cohesive digital workspace where all team members can stay informed, collaborate effectively, and track their progress in real-time.

## 18.4 Conclusion

Understanding your role and the responsibilities that come with it is essential for the success of our projects. By embracing your role and collaborating with your team, you will contribute to the innovative and impactful solutions we strive to create at Value Chain Hackers. Let's work together to achieve our goals and make a difference in the supply chain industry!

## 19 Resources

## 20 Resources

In the Value Chain Hackers program, we provide a wealth of resources to support your learning, development, and project success. These resources include tools, platforms, reading materials, and inspiring videos that will help you thrive in our innovative environment.

### 20.1 Tools and Platforms

#### 20.1.1 Communication

- **Nextcloud:** An open-source platform for file sharing and collaboration. Use it for sharing documents, managing calendars, and more. [Nextcloud](#)
- **Discord:** An online communication tool that integrates seamlessly with our digital workspace, perfect for instant messaging and voice/video calls. [Discord](#)

#### 20.1.2 Project Management

- **Taiga:** An open-source agile project management platform. Manage tasks, sprints, and backlogs with ease. [Taiga](#)

#### 20.1.3 Collaboration

- **Etherpad:** An open-source collaborative text editor for real-time document editing. Great for working together on documents. [Etherpad](#)
- **Nextcloud:** Also used for file sharing and collaboration. [Nextcloud](#)

#### 20.1.4 Version Control

- **GitLab:** An open-source Git repository management platform for version control and collaboration. [GitLab](#)
- **SmartGit:** A graphical Git client with support for GitHub, Bitbucket, and GitLab. [SmartGit](#)
- **GitHub:** Another popular open-source Git repository hosting service. [GitHub](#)

#### 20.1.5 Document Creation

- **LibreOffice:** An open-source office suite for creating documents, spreadsheets, and presentations. [LibreOffice](#)
- **Quarto:** A tool for creating dynamic documents from Markdown. [Quarto](#)
- **Zotero:** An open-source reference management software for organizing research sources and citations. [Zotero](#)

#### 20.1.6 Virtual Meetings

- **Jitsi:** An open-source video conferencing platform for hosting virtual meetings and webinars. [Jitsi](#)
- **BigBlueButton:** An open-source web conferencing system designed for online learning and collaboration. [BigBlueButton](#)

#### 20.1.7 Survey and Feedback

- **LimeSurvey:** An open-source online survey software for creating and conducting surveys and assessments. [LimeSurvey](#)
- **Moodle:** An open-source learning management system for creating online courses and assessments. [Moodle](#)

#### 20.1.8 Design and Creativity

- **Edraw:** A powerful diagramming tool for creating flowcharts, mind maps, and more. [Edraw](#)
- **Penpot:** An open-source design and prototyping platform. [Penpot](#)

### 20.1.9 Note Taking

- **Etherpad:** A collaborative text editor for real-time document editing. [Etherpad](#)
- **Privnote:** A tool for creating notes that will self-destruct after being read. [Privnote](#)

## 20.2 Reading Materials

- **Supply Chain Management: Strategy, Planning, and Operation** by Sunil Chopra and Peter Meindl: A comprehensive guide to understanding supply chain management principles and practices.
- **The Goal: A Process of Ongoing Improvement** by Eliyahu M. Goldratt and Jeff Cox: A novel that teaches the principles of process improvement in a manufacturing environment.
- **Logistics & Supply Chain Management** by Martin Christopher: An essential book for understanding the complexities and strategies involved in logistics and supply chain management.
- **AI Superpowers: China, Silicon Valley, and the New World Order** by Kai-Fu Lee: A book exploring the future of artificial intelligence and its impact on various industries, including supply chains.
- **Scrum: The Art of Doing Twice the Work in Half the Time** by Jeff Sutherland: An insightful book on the Scrum methodology and how it can be applied to enhance productivity and project management.

## 20.3 Inspiring Videos

- **How Wolves Change Rivers:** An incredible story about the impact of reintroducing



wolves to Yellowstone National Park.

- **Simon Sinek: How Great Leaders Inspire Action:** A talk on the concept of “Start





With Why” and inspiring leadership.

- **RSA ANIMATE: Drive: The surprising truth about what motivates us:** An an-



imated version of Dan Pink's talk on motivation.

- **The Power of Vulnerability - Brené Brown:** Research on vulnerability and its im-



portance in fostering innovation.

- **The Value of Supply Chain Management:** A comprehensive overview of the impor-



tance of supply chains in today's economy.

- **The Power of Data in Supply Chains:** How data analytics is transforming the



supply chain industry.

- **Inside the Amazon Warehouse:** An inside look at the logistics and operations of

Amazon's fulfillment centers.



- **The Future of AI in Supply Chain Management:** Exploring the potential of AI



to revolutionize supply chains.

## 20.4 Conclusion

These resources are designed to support your journey in the Value Chain Hackers program. By utilizing these tools, platforms, reading materials, and videos, you'll be well-equipped to tackle the challenges and opportunities in supply chain management. Let's make the most of these resources to innovate and drive impactful change in the supply chain industry!

## 21 Summary

## 22 Summary

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## 23 References

## 24 References

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