



# HOW TO **MAP** YOUR SUPPLY CHAIN

In today's fast-paced and ever-evolving global market, understanding and optimizing your supply chain is more crucial than ever.

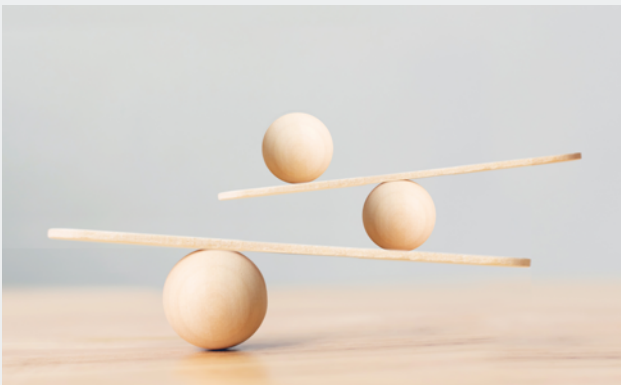
This ebook answers the most frequently asked questions businesses have about supply chain mapping, based on OPTEL's expertise. It will equip you with the knowledge and tools to begin and succeed in your supply chain mapping journey. We'll explore why now is the time to start, identify the main challenges you might face and outline actionable steps to get you started.

The key takeaway? It's important to start now! Enjoy the read!

## WHY COMPANIES ARE PRIORITIZING SUPPLY CHAIN MAPPING

A detailed supply chain map allows you to visually represent your multi-tier supply chain. However, the reasons and goals for businesses in different sectors to map out their supply chains can vary widely. Let's explore some of them in more detail.

### RISK MANAGEMENT AND SUPPLY CHAIN RESILIENCE



One of the main reasons companies map their supply chain is risk management. By identifying single-source dependencies and assessing the potential impact of supply disruptions — such as bottlenecks, natural disasters, geopolitical issues, and supplier instability — you gain important insights. Supply chain mapping gives you the information you need to proactively develop strategies to reduce vulnerabilities and ensure business continuity.

## REGULATORY COMPLIANCE

Another reason for supply chain mapping is that it forms the foundation for complying with new regulations being implemented in Europe and North America. Legislations and initiatives, such as the [EUDR \(European Union Deforestation Regulation\)](#), [CBAM \(Carbon Border Adjustment Mechanism\)](#), [CSRD \(Corporate Sustainability Reporting Directive\)](#), [UFLPA \(Uyghur Forced Labor Prevention Act\)](#), [IRA \(Inflation Reduction Act\)](#), [FSMA \(Food Safety Modernization Act\)](#), [SBTi \(Science Based Targets initiative\)](#), will require extensive proof and auditing for businesses. Failure to comply can lead to hefty fines and even the inability to export goods to certain countries.



## COST REDUCTION



Supply chain mapping helps companies identify significant opportunities for cost savings and improvements. By optimizing inventory levels, you can reduce holding costs and minimize excess inventory, which frees up capital for other investments. Streamlining transportation routes lowers fuel consumption and transit times, decreasing shipping costs. Consolidating suppliers allows for bulk purchasing discounts and reduces administrative expenses for managing multiple supplier relationships. Finally, mapping your supply chain can reveal inefficiencies in production workflows, allowing you to implement lean manufacturing techniques, find alternative material sources, and further drive down costs.

## ALIGNMENT WITH ESG GOALS

Along with the many looming ESG regulations that are coming into effect, businesses are deploying initiatives to map out their supply chains as part of their long-term visions to become more sustainable. A supply chain map is your first step to pinpoint specific areas to reduce Scope 1, 2 and 3 carbon emissions, introduce water-saving and more advanced recycling processes, verify that suppliers use sustainable practices, and avoid working with companies with shady labour practices and human rights records. Proving your organization's concrete actions in sustainability goes a long way to staying clear of greenwashing and protecting your brand reputation.



### IMPROVED SUPPLIER RELATIONS



A well-mapped supply chain can mean greater collaboration with your suppliers, such as joint development projects and more synchronized production schedules, reducing lead times and elevating product quality. It highlights areas for process optimization, which can lower operational costs for stakeholders and even prices for customers, especially in hyper-competitive markets.

### GREATER CUSTOMER SATISFACTION AND COMPETITIVENESS

With comprehensive supply chain mapping, your company can explore ways to enhance customer satisfaction. A case in point? Many businesses point to the fact that with a properly mapped-out supply chain, they have been able to innovate and develop higher-value products. Moreover, they have noticed that their customers are willing to pay higher prices if they are guaranteed that the products are more sustainable. All of this helps forward-thinking companies out-edge the competition and raise their customer lifetime value (CLV).



The ROI of supply chain mapping has been highlighted by many supply chain experts. This article, by Supply Chain Brain, offers some compelling insights.

[Read it here](#)

## OVERCOMING THE CHALLENGES ASSOCIATED WITH SUPPLY CHAIN MAPPING

Mapping your entire supply chain may appear daunting, especially if your company has a multi-tiered stakeholder ecosystem. Indeed, the complexities of modern and multi-faceted supply chains can create significant challenges in tracking, coordinating, and managing the vast array of interconnected entities and processes involved.

Based on OPTEL's work with many global customers, here are the most frequent challenges we've observed in supply chain mapping projects, along with the solutions we've implemented to address them.

### CHALLENGE 1

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#### COMPLEXITY AND SCALE

Modern supply chains are often complex, involving numerous suppliers, subcontractors, and logistics providers spread across multiple countries and continents. The lack of full visibility into supply chains, makes it even more difficult to identify all entities involved and understand their interrelationships.



#### SOLUTION

With Optchain™, customers were able to create a visual representation of their supply chains. Utilizing easy-to-use visualization tools, their supply chain maps became the first steps to evaluating current status and performance.

### CHALLENGE 2

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#### DATA FRAGMENTATION

Supply chain data is often stored in disparate systems and formats across different departments and locations within a company.



#### SOLUTION

With Optchain™'s data capture and collection capabilities, customers integrated data from various sources, whether in third-party software programs, APIs, or even spreadsheets, within one unified platform to map each supplier and its suppliers both upstream and downstream of the value chain. The platform becomes a hub, where data is standardized and more easily traced. This facilitated customers' analyses of their supply chains.

### CHALLENGE 3

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#### SUPPLIER RELUCTANCE

Some suppliers may hesitate to share detailed information about their own suppliers and subcontractors. Data security and privacy concerns are often at the top of suppliers' minds when they hear about supply chain mapping.



#### SOLUTION

With platforms that feature robust cybersecurity features, such as Optchain™, you can reassure partners that their sensitive supply chain data won't be compromised. In addition, we helped our customers develop concrete action plans and timelines to make sure the supplier onboarding process was as streamlined as possible.

## CHALLENGE 4

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### RAPID CHANGES IN SUPPLY CHAINS

Supply chains are dynamic and subject to frequent changes due to market fluctuations, regulatory changes, and disruptions.



### SOLUTION

With Optchain™, you can use real-time monitoring tools to identify problem areas in your supply chain. Thanks to live portraits of their supply chains, OPTEL's customers developed agile strategies to quickly adapt to changes.

## CHALLENGE 5

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### RESOURCE CONSTRAINTS

Mapping the entire supply chain is perceived as taking up significant time, resources, and expertise.



### SOLUTION

Yes, mapping a supply chain does take time. It is better to start earlier rather than later, especially when it comes to proving compliance with various upcoming regulations. The payback can be extremely fast, thanks to supplier optimization and cost control. And, as mentioned before, long-term benefits also include higher competitiveness, product innovation and reduced customer churn.





## HOW TO GET STARTED

We cannot emphasize it enough: Don't leave your supply chain mapping to the last minute, especially if your company is subject to different regulations—whether at home or abroad.

And don't do it alone. Find a supply chain mapping partner with the experience and the right technology platform to simplify what is a huge undertaking.

### Here are the top steps to get started on your supply chain mapping project:

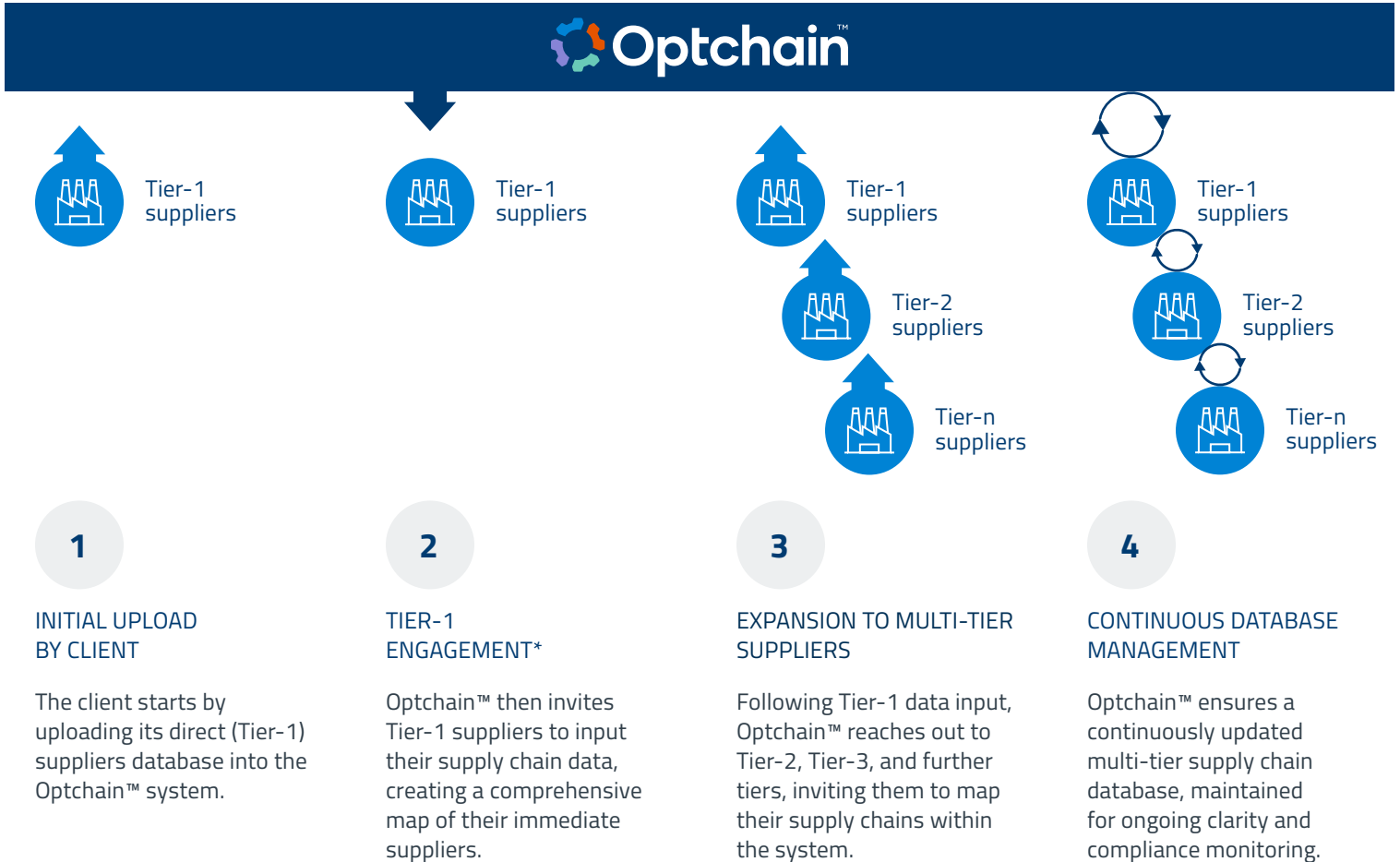
1. Determine the reasons and goals behind wanting to map out your company's supply chain. Although there are many benefits to supply chain mapping, starting with one goal is important. If successfully carried out, the project will inevitably cause a ripple effect and generate results that will impact other business objectives.
2. Develop a supply chain mapping plan, assigning a specific department to spearhead the project.
3. Communicate to all internal organizations about the project, its criticality, its benefits, and each team's roles and responsibilities.
4. Select a supply chain mapping partner and solution provider to support you from start to finish.
5. Kickstart the project planning with your partner. Discuss your main goal and be transparent about your business' context, the challenges you face, and the fears expressed by employees and suppliers.
6. Begin the process of engaging with your suppliers to present the plan and get them committed to playing an instrumental role in the project.

Starting your supply chain mapping project with a clear goal, a seasoned partner, and a comprehensive plan is essential for success. Remember, the effort you invest in today will yield significant benefits for your business in the long run.

## MAPPING YOUR SUPPLY CHAIN

You've chosen your supply chain mapping partner and platform. You've got your action plan ready. Your team and suppliers are aligned with the strategy. But you may now wonder: what are the concrete steps to mapping out your supply chain?

In a nutshell, mapping out your supply chain begins with Tier 1 suppliers. Then, you expand to key supplier relationships (suppliers categorized as Tier 2, 3, etc.) This is what the process looks like when using OPTTEL's Optchain™ platform:



Keep in mind that mapping your supply chain includes more than just a visual representation of your organization's web of suppliers and supplier relationships. To maximize the value of your map, you should also identify transportation modes and routings to zero in on inefficiencies, carbon footprints, and cost reduction possibilities.

Ideally, you should also create a supplier risk index. This index is a weighted risk score of each supplier that takes into account risk factors, including supplier performance and capacity, compliance issues, financial stability, logistical problems, location of the supplier or its suppliers in high-risk regions around the globe, etc.

Once analyzed by the right teams in your company, these vulnerabilities will become opportunities. View them as you're the beginning of a blueprint for tactics and roadmaps to overcome them—all while you keep your eye on the main goal you initially set for your supply chain mapping project.



## What are Tier 1, 2 and 3 suppliers?

- Tier 1 suppliers are your direct suppliers, providing goods or services directly to your company.
- Tier 2 suppliers supply materials or components to Tier 1 suppliers, indirectly supporting your operations.
- Tier 3 suppliers provide raw materials or basic components to Tier 2 suppliers.

Understanding these tiers helps map the entire supply chain and identify potential risks and opportunities at each level.



Tier-1 Supplier



Tier-2 Supplier



Tier-3 Supplier

## HOW LONG DOES IT TAKE TO MAP A SUPPLY CHAIN?

We get this question a lot. The duration of mapping a supply chain primarily depends on the complexity of the supply chain, the number of suppliers, the availability of internal resources, and the level of investment in technology.

For a relatively simple supply chain with good data visibility and cooperation from all parties involved, mapping can be accomplished in a matter of weeks or a few months.

However, for more complex supply chains with numerous suppliers, subcontractors, and global logistics networks, the process can take much longer—sometimes six months to a year or even more.

Factors that can influence the time required to map a supply chain include:



Data availability and quality



Your supply chain's complexity



Your partner's expertise



Features and capacity of your tech platform



Project scope



Engagement of internal teams and supply chain stakeholders

In summary, while it's difficult to provide a precise timeframe, mapping a supply chain is typically time-consuming and requires careful planning, coordination, and analysis. Our recommendation? [Contact OPTEL today](#). Our experts can help you achieve greater clarity as to the span of your supply chain mapping project and potential timeframe.

[CONTACT US](#)



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