

CONTENT SUPPLY CHAIN MANAGEMENT

Revolutionize your way of managing content.

Learn how to tame the increasing complexity in content management and discover solutions that give you the power to organize content – fast.

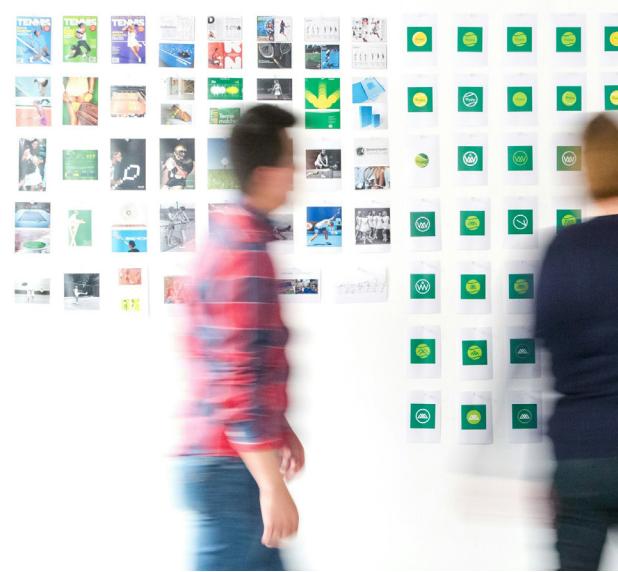
Tackle your content challenge and take back control.
Experience how vjoon can help you stay in the driver's seat.



Chart a new course to success

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Revolutionize your way of managing content

The world around us is packed with data. Vast amounts of data. And there's always more to come. By 2030, the amount of data is expected to have grown to 572 zettabytes. Companies and organizations are trying to master this challenge with different approaches. And while yesterday the focus was on buzzwords such as "digital transformation" and "efficient collaboration", today it is "artificial intelligence". The threat of losing control is particularly evident in the context of content. Although AI can take over various manual processes and relieve the burden on people, it also contributes to the production of even more content, for example. Therefore, it is not isolated solutions that are needed here, but holistic approaches and comprehensive strategies. Because in this never-ending stream of data, comprehensive access to content and the ability to use it everywhere are key to the success of companies and organizations.

So what can companies and organizations do to tackle this problem and successfully reorganize themselves? Thinking outside the box leads to the solution, as the manufacturing industry and retail supply chains basically have similar problems. They are successfully solved with "Supply Chain Management" (SCM).

The idea of considering content production as a supply chain to keep increasing complexity and costs manageable goes back over a decade. The pioneering concept of vjoon's Unified Publishing Process (UPP) from 2012 already pursued this consideration.

Since then, we continuously developed and adapted it to the markets needs. Today, the so-called "content supply chain management" is a successful standard for effectively bringing together people, tools, and workstreams to imagine, create, manage, provide, and improve content.

Only a smart production process can meet the challenge of increasing content and growing complexity. Stay ahead with a content supply chain based on vjoon solutions. All types and sizes of companies and organizations can benefit. Whether you are a global enterprise or a medium-sized company, a creative agency, publishing house, association or government organization – content supply chain management based on vjoon solutions will help you become more successful.

Essentially, it is about three key aspects: Create, Manage and Provide. From the initial creative idea, through team collaboration, reviews, versioning, and management of all related information, to the delivery of a wide variety of formats – our integrated solution helps you turn ideas into reality. Faster than others.



The content challenge, or: How to tame complexity?

Always faster, always more. An irreversible trend.

Ever faster development cycles, more and more formats and distribution channels continue to determine the daily work in marketing, creative agencies and publishing houses as well as in many other team organizations. And while phrases such as "digital transformation" and "efficient collaboration" were the top buzzwords yesterday, today it's "Artificial Intelligence". AI creates images, writes stories in any language, summarizes texts, lets voices speak at will and even entire videos are possible. All thanks to the right prompt.

Regardless of ethical issues or the data basis on which AI was trained, it appears to be radically transforming many areas of work and automating manual tasks. Of course, the question of process control also remains and is unlikely to become less complex. And, let's not kid ourselves, AI can create content in a matter of seconds. So if the growth in data "before" AI had not already been enormous, it is now getting another incredible boost.

The digital universe is not unlike the physical universe in that they are both vast. In 2013, it was estimated to contain around the same number of digital bits as there

are stars in the universe. The source of this figure was an EMC study conducted with the IDC and published in May 2014 called "The Digital Universe". And it is growing fast with all the data we generate and copy.

According to IDC and Huawei, the overall amount of data generated is expected to reach 572 zettabytes by 2030. And while the share of enterprise content is 47 exabytes today, it will reach 155 exabytes by 2026. And this growth will continue and accelerate in the years to come.

How do we deal with this deluge of data?

Using manual processes and outdated tools such as e-mail and file servers, companies will lose an incredible amount of time and money in managing their content. From the initial idea, through implementation, review, versioning, and manual delivery in various formats, it can take days and weeks. Companies that do not have a future-oriented content management strategy only end up burning money and falling behind the competition.

Content Management is evolving into something of a value chain within the company. The more efficient this process can be made to be, the more time and costs can



be saved along the way. These untapped resources may then be devoted to create more content or shorten time to market cycles. The factors that figure most prominently in the content management value chain are:

- Efficient ways of creating, managing and providing any type of content
- Ability to reuse content at any time
- Convert formats to fit for any workflow, channel or touchpoint
- Integrate external and internal sources, new technologies and service providers smoothly
- Quick and easy configuration of teams that can access and process specific content

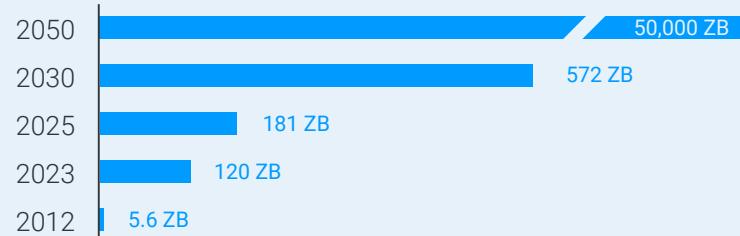
Chart a new course to success

So what can companies and organizations do to tackle this problem and successfully reorganize themselves? Thinking outside the box leads to the solution, as the manufacturing industry and retail supply chains basically have similar problems: a huge variety of materials and products, complex production and delivery processes, many internal and external stakeholders and, last but not least, various connected systems. These problems are successfully solved with "Supply Chain Management" (SCM). The notion of end-to-end control over workflows that incorporate automated processes has been tremendously successful.

SCM is shorthand for the planning and management of all supply and logistics tasks, from selecting suppliers to procuring, manufacturing, and delivering goods. It is the tool used to coordinate collaboration among all the players, suppliers, merchants, logistics service providers and customers. SCM integrates management within the confines of an enterprise and beyond its boundaries.

Global amount of data

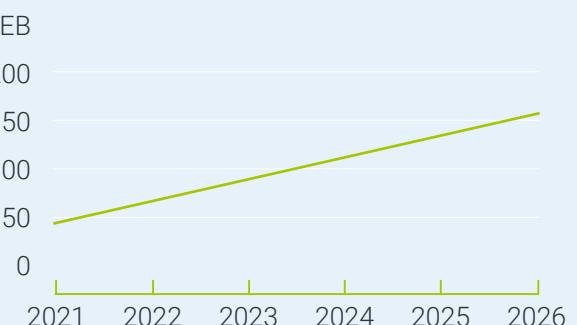
Growth by 2012-2050 (expected)



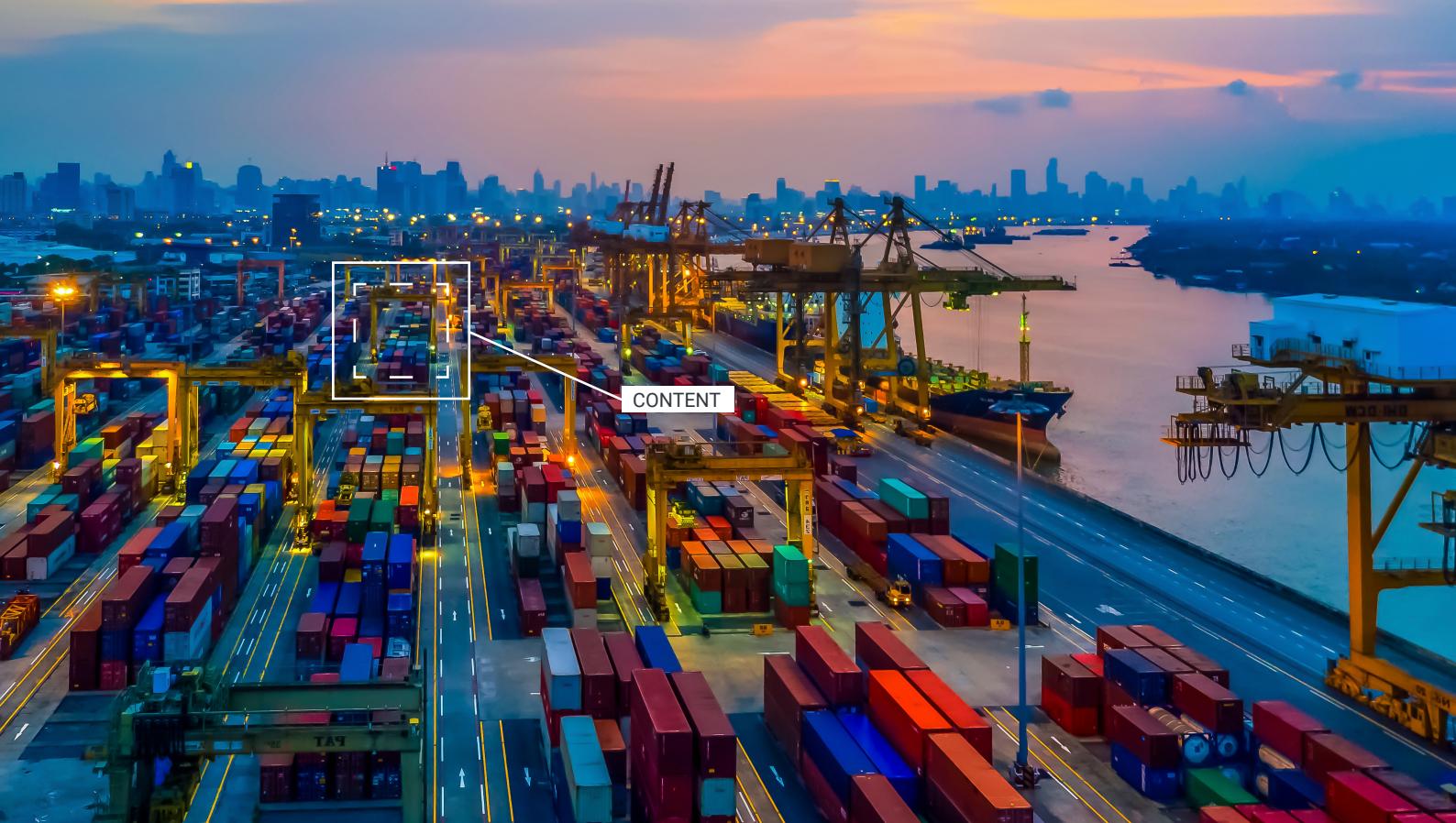
1 Zettabyte (ZB) = 1,000,000,000,000,000,000,000 Bytes

Enterprise content

Growth by 2021-2026 (expected)



1 EB (Exabyte) = 10^{18} Bytes; 1,000 EB = 1 ZB



An inspiring strategy: Supply Chain Management

The roots of supply chain management (SCM) date back at least to the 1980s when an early precursor to SCM concepts called just-in-time (JIT) manufacturing and its cousin, the just-in-sequence (JIS) inventory strategy, emerged. The idea behind JIT was to closely coordinate manufacturers and suppliers' processes, which required major adjustments to the value chain.

Processes had to be linked so suppliers could track the materials consumed by manufacturers. They had to be made more flexible yet also more stable with an eye to improving quality. Shipping processes and cargo carriers had to be standardized, for example, with uniform container systems and truck swap bodies. The Japanese concept of Kanban, or the pull principle, was instrumental in making all this work.

The following factors drove and shaped the emergence of SCM:

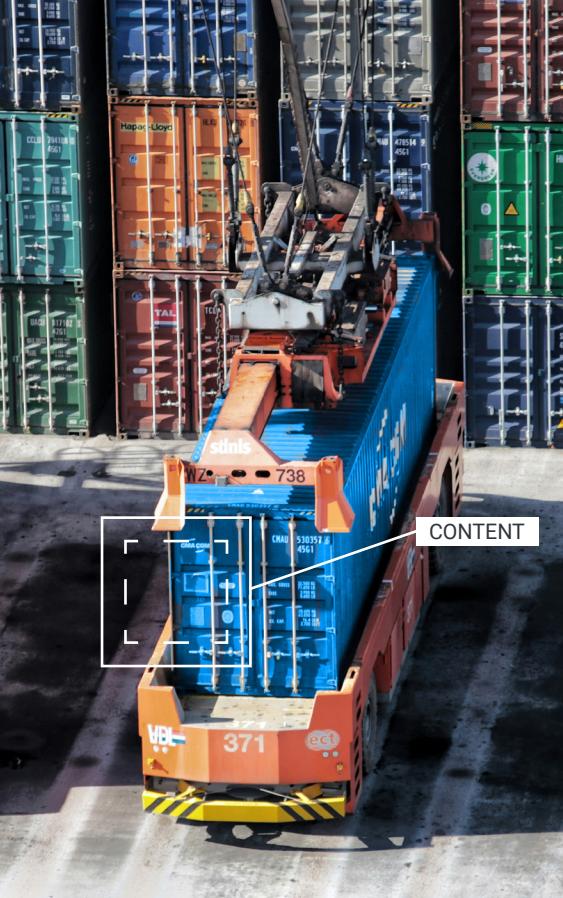
- A big-picture view of the total cost of ownership, or TCO, which called for greater cost transparency throughout the supply chain.
- The transaction costs incurred during the transition of material goods, communication problems, conflicts between process participants, risk factors due to political changes or climate effects, and so on.
- The bullwhip effect, which is an overreaction to unexpected demand caused by lack of transparency

regarding actual demand, misinformation, frequent changes in inventory levels at various points in the process chain, and the like.

- The effects of globalization such as procurement on an international scale, cheap and fast transportation and communication, and worldwide competition.
- More demanding customers who want goods to be available worldwide, regardless of store opening hours, and insist on better quality.

The automotive industry and the retail sector, especially, began exploring notions of customer-centric process chains. While retailers came up with the idea of efficient consumer response (ECR), the Toyota production system changed the auto industry. Called the Toyota Way, its core precepts are to eliminate waste throughout the process to achieve Kaizen, Japanese for improvement. This has come to be known as the continuous improvement process, or CIP for short.

And this CIP continues all the time. There have been some groundbreaking innovations in SCM in the recent past in particular. Many manual processes have been further streamlined with automations, for example with AGVs (Automated Guided Vehicles) and IoT (Internet of Things) solutions. "Digital Twins" are now used for the big picture; they simulate scenarios and facilitate planning or risk management.



Studies show clear results

The Supply Chain Management Institute (SMI) of the European Business School (EBS), the management consulting firm McKinsey & Company, and the Bundesvereinigung Logistik (BVL or German federal logistics association) joined forces to conduct a study called "My Chain Delivers". It investigated to what extent optimum SCM contributes to a company's business success. The rewards of such a holistic approach to optimization are

- Up to 40 percent lower supply chain costs
- Up to 20 percent higher service level
- Up to 30 percent less inventory

And the positive effects are not limited to the supply chain. Companies that persistently practice SCM have been able to boost their overall revenues.

Let's get back to content management, which is also a challenging task considering the massive amounts of data and complex processes. It cannot be accomplished without a scalable platform that is highly automated and can map all these complex processes. And as with the manufacturing industry and retail supply chains, content management also requires a holistic, comprehensive view – that's what we call:

CONTENT SUPPLY CHAIN MANAGEMENT

The rewards of a holistic approach to optimization by Supply Chain Management:

UP TO **40%** LOWER COSTS

UP TO **20%** HIGHER SERVICE LEVEL

Process optimization by Supply Chain Management:

- Synchronize Processes
- Standardize Processes
- Prevent Errors
- Improve Manufacturing Systems
- Train and Qualify Employees

What is Content Supply Chain Management?

The idea of considering content production as a supply chain to keep increasing complexity and costs manageable goes back over a decade. The pioneering concept of vjoon's Unified Publishing Process (UPP) from 2012 already pursued this consideration. Since then, we continuously developed and adapted it to the markets needs. Today, content supply chain management is a successful standard for effectively bringing together people, tools, and workstreams to imagine, create, manage, provide, and improve content.

In order to understand how this can bring your content operations to excellence and keep them manageable even with the predicted amounts of data, it is worth taking a look at the typical challenges in managing content. Despite the differences in all the customer projects, there are always similar issues. We have summarized a number of typical topics here – and also added the answers as provided by Content Supply Chain Management:

How to create content fast and at high volume?

- Use modern and familiar tools to create content at scale.
- Streamline workflows and automation.
- Enable quick access to all versions of your content through a central content-hub.

How to break down silos and improve collaboration between people and systems?

- Use smart integrated systems that connect teams, workflows, and content.
- Follow a clear and transparent production strategy that guides you step by step.
- Avoid storing content in different systems, but establish a central content hub as your single source of truth.

How to manage the fast growing amount of versions, renditions and important information for each asset?

- Most importantly, you need a modern and powerful DAM platform to manage the growing amount of content.
- At the same time, this platform should be able to manage huge numbers of versions and automatically provide different renditions.
- In addition, you need intelligent metadata management to enrich your content with additional information so that it becomes an important part of your value chain.

How to provide tailored content for a wide range of channels and stakeholders?

- First, you need professional standard tools, such as Adobe Creative Cloud, to create creative content with maximum freedom. Preferably, these tools are already deeply integrated with a workflow system and DAM.
- Second, automate as many routine manual tasks as possible, such as managing versions, but also creating accurate renditions should be automated.
- And third, output channels and platforms should also be delivered automatically. This is usually done by connecting third-party systems – either directly available out-of-the-box or as an custom development.

How to keep costs lean in the face of increasing content production?

- Focus on modern, but field-proven technologies and production concepts.
- Use state-of-the-art technologies and standard solutions instead of launching your own cost-intensive projects.
- Keep your entire processes lean and highly automated.
- Have your workflows and IT reviewed by experienced partners.



To create content in high volume, I need cutting-edge creative tools, smooth collaboration with internal and external stakeholders, and easy access to existing content.

Vicky, Content Creative



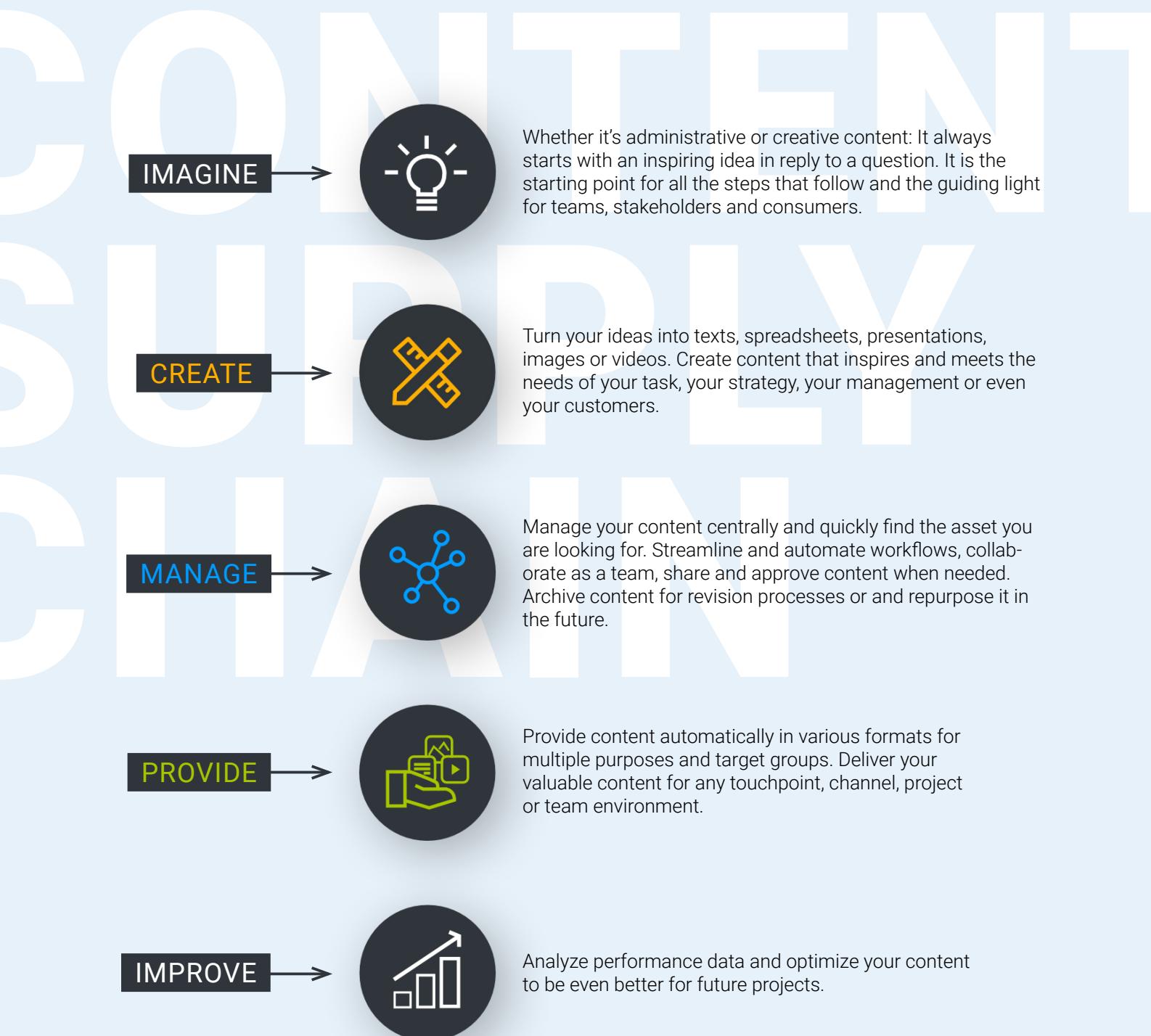
Rapidly changing markets and customer expectations require content that inspires. Nevertheless, the costs for creative and technical processes must be well manageable.

Sharon, Executive Manager



To manage our content in a value-added way, we need a central content-hub as a single source of truth, proper automations and transparent workflows with smart integrated tools.

Josh, Project Manager



How to stay ahead

Drive your Content Supply Chain.
Focus on key aspects.
Increase your performance.

A smart production process can meet the challenge of increasing content and growing complexity. Stay ahead with a content supply chain based on vjoon solutions. Essentially, it is about three key aspects:

- Create
- Manage
- Provide

From the initial creative idea, through team collaboration, reviews, versioning, and management of all related information, to the delivery of a wide variety of formats – our integrated solution helps you turn ideas into reality.

Faster than others.



CREATE



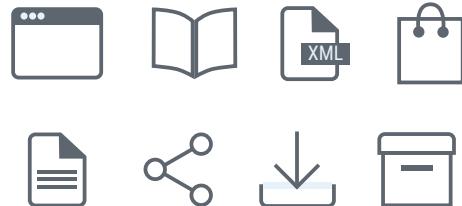
- Don't just create – turn content into valuable information for customers and businesses. Use tools that lead this content to its destination in a highly automated and secure way.
- Access via sophisticated vjoon clients from anywhere to create awesome content for print and digital.
- Benefit from vjoon's tight integration with Adobe Creative Cloud and Firefly AI for maximum creative freedom.
- Use Word, Excel, and PowerPoint to create typical business information and manage all files including all versions with ease using vjoon.



MANAGE



PROVIDE



- Manage any content and all your workflows more efficiently with a smartly driven content supply chain.
- Break down siloed thinking and connect everyone in one streamlined workflow with the ready-to-use integration of a next-gen DAM with a professional publishing system.
- Expand your capabilities with optional integration of planning systems for topics, campaigns or pages.
- Ensure with seven as your single-source-of-truth that all your content is always available in the latest version, both across teams and organizations and in different cities or countries.
- Group assets into collections if you want to make selected content available to internal or external stakeholders.
- Our solutions analyze and structure vast amounts of metadata in seconds so that search and filters deliver the right assets faster than ever.
- Grant rights of use for images and mark non-existing rights directly in the layout.
- Enable immediate feedback through approvals, comments as well as status information and benefit from notifications that let you know when something needs to be done.

- Provide dynamic content for publication to every channel or touchpoint.
- Let your Teams deliver perfectly fitting images and graphics for campaigns, magazine editions or web-shops. With Renditions, they always quickly and automatically have the right size and resolution in the required file format at hand.
- Benefit from extensive integration options for a variety of systems, including Web CMS, Social Media, ERP, eCommerce, or Marketing Automation. Depending on your needs, you can trigger these systems manually or automatically and deliver content with ease.



Who can benefit?

PUBLISHERS

Content editors, Layout designers, media and production management – they all benefit from a unique publishing workflow, based on a lean content supply chain.

Content Editors

Internal and external editors create high-quality stories for print and online. Everyone has secure access to the system from anywhere. Headlines, images and extracts as well as SEO keywords can be created with AI and easily added.

Layout Designers

Layout designers create the entire issue and enrich stories with photos and graphics. Thanks to the close collaboration between layout designers and editors, layouts can be adapted to text lengths or articles can be written copy-fit.

Media Management

The editorial team has access to all texts, photos, graphics, and videos via a central content-hub. Versions are saved automatically and image collections can be made available to the editors. A digital archive manages all issues ever published.

Production Management

The entire production status can be displayed in the newsroom at any time. So the head of production can view all publication layouts with their assigned workflow status, providing instant insight into areas that require attention.

ENTERPRISES

From small to large. From marketing, to sales, finance, legal and HR. Go even further to optimize your entire content operations.

Marketing

Brand elements (e.g. logos, colors, fonts), videos, images, graphics, text samples, advertisements, product brochures, presentations.

Sales

Price lists, product fact sheets, sales guidelines, sales presentations, training material, tutorials.

Finance

Budgets and forecast documents, audit reports, financial reports and presentations, internal management reports, compliance documents.

Legal

Compliance documents, intellectual property registrations, ethics and compliance materials, corporate governance documents.

HR

Contracts, job advertisements, employee handbooks, guidelines for new employees, internal communication material.



ASSOCIATIONS

Produce more content in less time. Include all your valued stakeholders and scale your creative content production with automations and lean workflows.

Members

Access to the association's brand elements, promotion materials, and reports. Collaboration on content for the association's internal and external communication.

Organization

Creating and approving images, graphics, videos, social posts, promotion flyers, campaigns, news, member and association magazines, reports, presentations, brand elements and guidelines.

Creative Services

Process creative tasks (e.g. photos, illustrations, texts, storyboards, audio), sharing results, using brand elements and guidelines.

CREATIVE AGENCIES

Creative organizations need centralized information and lean workflows to produce relevant content for their clients.

Clients

Briefings, approvals, comments, budget plans, project overviews, providing brand elements and guidelines, management feedback, executive reports.

Creative Teams

Images, graphics, videos, ads, social posts, promotion flyers, product brochures, annual reports, sustainability reports, presentations, using brand elements and guidelines, production overview.

Freelancers

Process creative tasks (e.g. photos, illustrations, texts, storyboards, audio), sharing results, using brand elements and guidelines.

Administrations

Briefings, budget plans, meeting notes, contracts, executive reports, general project documents.

Why vjoon can help you succeed

The ocean of software vendors contains an incredible number of solutions. And as of today, there are already over 11,000 solutions on the marketing technology landscape, including DAM and publishing systems. So why choosing vjoon?

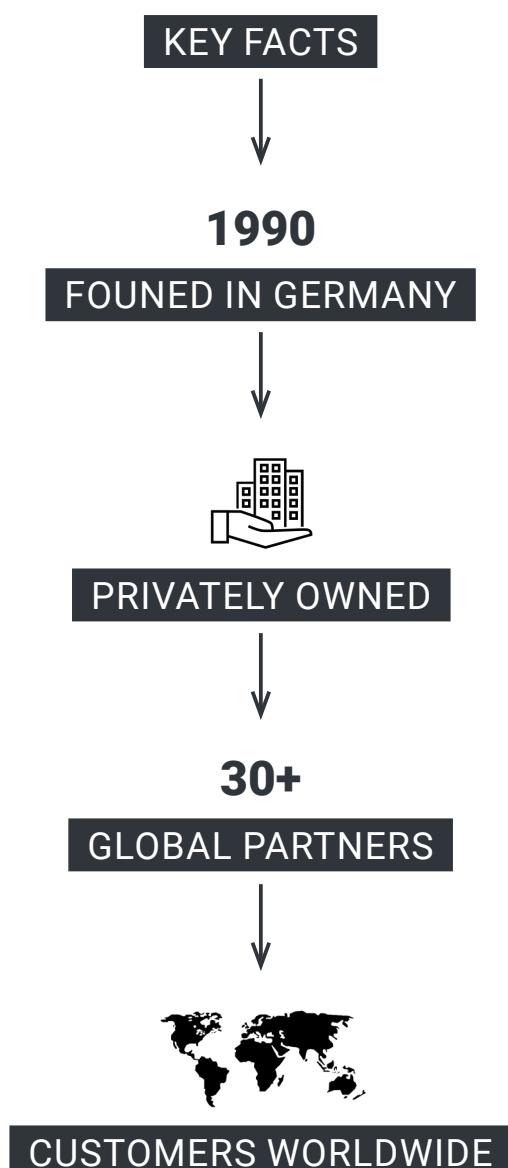
Because sophisticated software with high quality is our DNA. Since our founding in 1990, we have pursued the goal of providing our customers with solutions that noticeably improve their content management. We are privately owned and our hierarchies are flat. With our headquarters in Europe/Germany and our office in the USA, we are close to the pulse of our most important markets. This enables us to be flexible, recognize market changes quickly, and act accordingly.

A steadily growing workforce of highly qualified employees develops our products K4 publishing system and seven DAM at our headquarters in the greater metropolitan region of Hamburg. This is the home base from which we also coordinate our global partner network. And together, we look back on 30+ years of experience in content management solutions.

Strong history. Excellent references.

Originally founded as a start-up for software localization, plug-in development and integration of publishing software, we were the first provider to develop a professional workflow solution based on Adobe InDesign in 1999. In 2010, we were (again) one of the first in the field of magazine apps, integrating K4 with Adobe DPS. And the pioneering concept of vjoon's Unified Publishing Process from 2012 formed the basis for today's Content Supply Chain Management.

vjoon has grown in recent years to become one of the largest providers of software solutions for smart content management. Customers of all sizes around the globe are already leveraging the power of vjoon solutions to drive their Content Supply Chain and achieving incredible results. Let's do the same.



Selected customers



CONDÉ NAST



Hubert Burda Media



Texas Electric
Cooperatives
A Touchstone Energy® Cooperative

The New York Times





CONTENT SUPPLY CHAIN MANAGEMENT

A vjoon white paper.

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