



FastRepro

Additive manufacturing
to support maintenance

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White Paper FastRepro



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State of the art of additive manufacturing

The different 3D printing production methods

A infinity of opportunities to seize

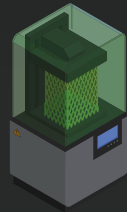
Conventional production methods (by removing material) generate an over-consumption of material. sur-consommation de matière. Indeed, these processes will generate a residual of unexploited materials.

On the other side, additive manufacturing allows an efficient use of the production material. Moreover, additive manufacturing is fully in line with a responsible production approach, as close as possible to the customer's real needs.

3D printing is a gateway to on-demand manufacturing. The different production methods and materials available open the door to an infinite range of possibilities.

The resilience and speed of manufacturing make these technologies ideally suited to custom production.

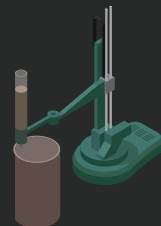
Additive manufacturing is fully part of the Industry 5.0 era.



Resin

Excellent surface finish and high detail accuracy

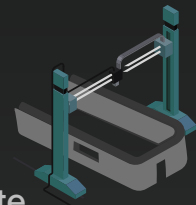
A beam of light hardens thin layers of resin, offering a final result of the most aesthetic, whose fields of use are multiple and varied.



Ceramic

A material with unique features

A popular choice for applications that demand precision and durability, such as those in the medical sector.



Concrete

More sustainable construction and controlled production

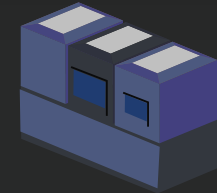
According to a predefined pattern, the printer deposits successive layers of liquid concrete. This process, mainly used in the construction industry, allows a reduction in manpower and resources for a faster production.



Metal

Lose less material while gaining lightness

By combining the characteristics of metal and the capabilities of the technology, new challenges are being addressed: weight savings, increased performance and cost reduction.



Plastic

Ideal for small production runs and prototyping

This process has been widely democratized due to its versatility, profitability and accessibility. It allows the production of parts with complex geometries quickly.



State of the art of the supply chain

Define the barriers and vulnerabilities of a traditional supply chain

The problems of the current supply chain

Today's supply chain is complex and requires the involvement of multiple stakeholders, increasing the risk of failure.

Fluctuating logistics costs and potential disruptions (embargoes, strikes, natural disasters) directly impact the break-even point and delivery timing.

Moreover the methods of transport used require shipments in large quantities, the environmental impact of these operations is alarming, as shown by the reference figures of the import of a container from Tokyo to Paris below.

Finally, the digitalization of the supply chain, if not controlled and supervised, can lead to security and confidentiality breaches.

CO² EMISSION

1 400 KG

SUPPLY

8 MONTHS



PRODUCTION RELOCATED AND CENTRALIZED



High volume storage and transport

- Logistical costs
- Security loopholes
- Environmental impact



Relocated production

- Delivery time
- Customs fees
- Obsolescence

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Why integrate additive manufacturing to the supply chain?

A tangible solution to supply chain vulnerabilities

A solution adapted to the modern supply chain

Integrating additive manufacturing into a supply chain increases control over production. The reduction of the number of actors leads to an assured reduction of the risks involved.

Logistics costs are also greatly reduced. With a local production, as close as possible to the need, the journeys are limited to a "Last Mile Delivery".

Adapting to customer demand also means adopting a responsible production method by avoiding large quantity shipments.

Where demand is fluctuating and needs are changing, additive manufacturing makes it possible to follow these flows while at the same time reducing the environmental impact of these operations.

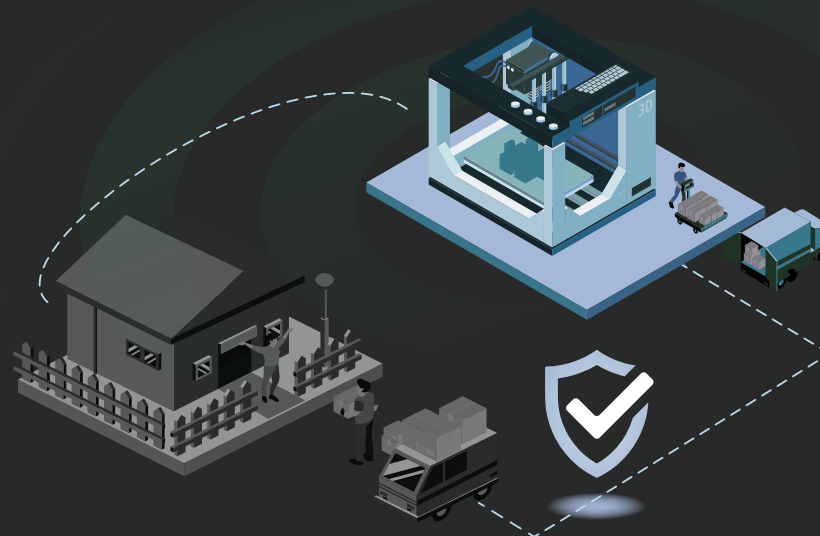
co² EMISSION

LESS THAN 100 KG

SUPPLY

LESS THAN 1 MONTH

PRODUCTION LOCALIZED AND DECENTRALIZED



Ordering
platform
secured



On Demand

- Last Mile Delivery
- Flow control
- Responsible production



Local production

- Short or direct transport
- Sovereignty of supplies
- As close to the need as possible

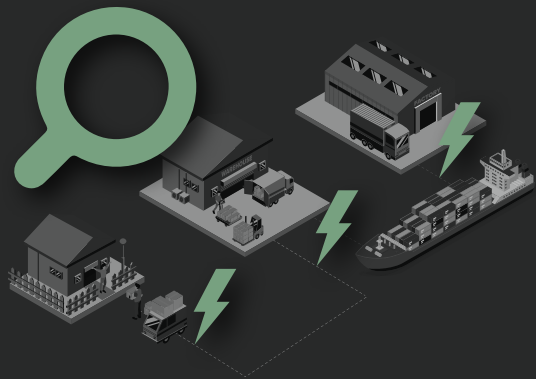
The traceability of the process can be assured by a trusted third party such as MainChain, ensuring the security and immutability of production data.

How to integrate additive manufacturing into your supply chain?

A complete analysis before the deployment of the solution



AUDIT



Highlighting the **the risks of supply chain breakdown** and spare parts **obsolescence**

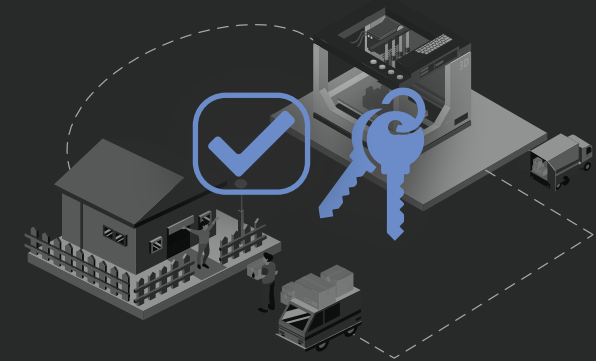
AUDIT IN-DEPTH



Identification & qualification of sensitive parts, eligible for production relocation
In-situ or geographically close

Definition & validation of the relocated production mode
Processes / materials

DEPLOYMENT OF THE SOLUTION



Setting up a turnkey production unit
Local or in-situ

Vistory, trusted third party for Industry 5.0

Making additive manufacturing accessible to all



Who are we?

Vistory is a “new generation” industrial SME created in 2015, which has developed an innovative approach to industry based on resilience, on-demand production, trust and proximity to the customer.

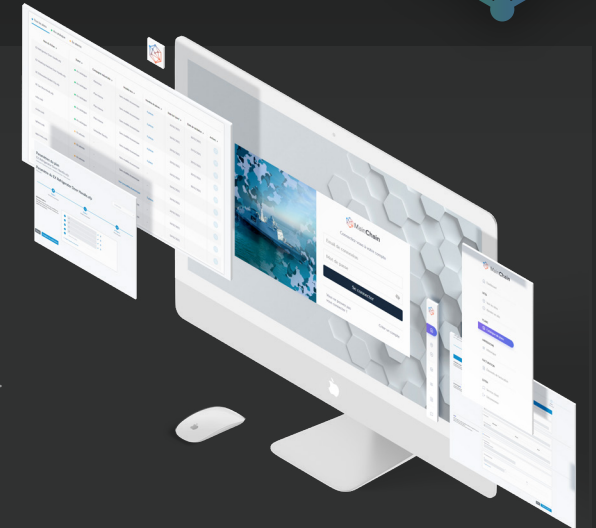
At the start of this exceptional adventure, there is the development of a revolutionary tool: **MainChain**.



MainChain

With **MainChain**, Vistory positions itself as a trusted third party dedicated to the cloud-based production of innovative manufacturing such as additive manufacturing. MainChain is able to manage data protection, asset traceability and production within a digitized supply chain.

2017

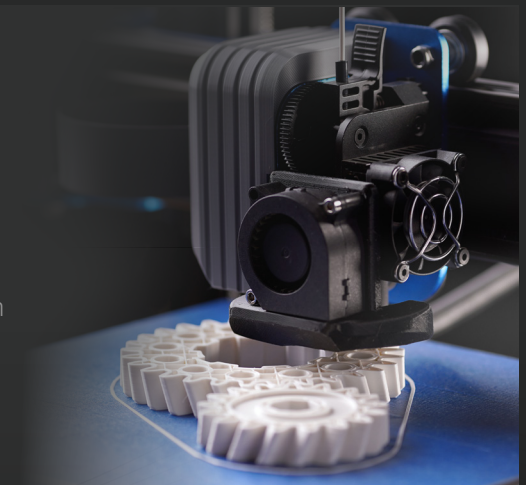


FastRepro

With the experience accumulated in the field of additive manufacturing, Vistory's ambition is to make this revolutionary process accessible to all.

With FastRepro.com and its mechanical design office, Vistory accompanies individuals and professionals from start to finish in the production of 3D printed parts.

2022



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FastRepro, 3D printing at your fingertips

Bring ideas to life



YOUR REPAIRABILITY SOLUTION



A greater versatility

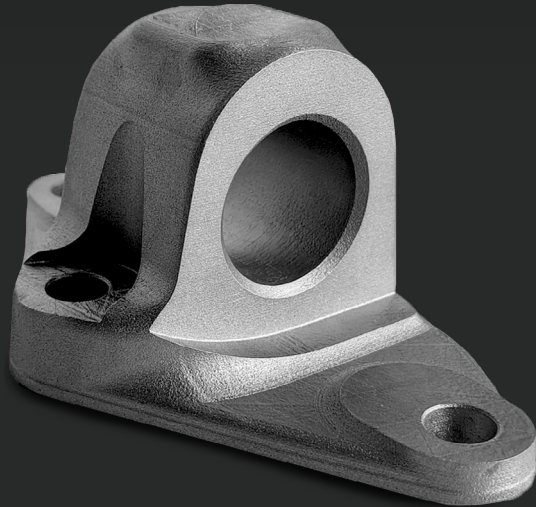
FastRepro has created a vast network of partners, offering the possibility of proposing a wide range of materials and technologies. Thus, each project, even the most complex, finds a relevant and adapted answer. Everything is done to provide quality parts at the best price. To do this, no exclusivity contract is imposed, which offers total freedom in the resolution of projects.

The expertise of professionals

Thanks to years of experience in the field of 3D printing, passionate teams accompany professionals and individuals in their redesign project. Each request is different and requires a personalized response. FastRepro is committed to guiding its users to the best choice, and thus quickly put an end to problems of unavailability and obsolescence.

Additive manufacturing for industrial maintenance

Meet the challenges of industrial maintenance



Use case: a company integrates additive manufacturing into its maintenance operations.

Before including additive manufacturing in its maintenance operations, a company faces the following issues: parts shortages, dependence on a third-party supplier over-stocking of parts, long lead times, and a production-focused market.

All of these issues are solved with the integration of additive manufacturing.

The supply chain paradigm is revisited. The autonomy brought by additive manufacturing allows to keep a total control on maintenance and thus increase its flexibility and independence.

Independence



Consumer needs are central to the principles of Industry 5.0. Additive manufacturing gives access to responsible and on-demand production means. Thus, it allows us to provide an adapted answer to each project.

Consumer centricity

Additive manufacturing avoids the accumulation of unused parts and redundant orders. The production of maintenance parts is therefore closer to the real needs of the company.

The reactivity on their maintenance chain is also increased. They are able to quickly obtain parts that were previously unavailable or impossible to find.

Reactivity

Closest to the need



Production of industrial maintenance parts at your fingertips

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Build a secure digital warehouse

Safety and accessibility for additive manufacturing

A digital warehouse is a dematerialized space dedicated to the management of print files. Through this space, it is possible to add new plans, to start printing and to have a total control of the production. With a simple click, or the movement of a finger, the production is launched. This digital warehouse communicates directly with an adapted printer. This printer can be internal to the company or provided by an external service provider. It is essential, when setting up such a tool, to think about the security of the data.



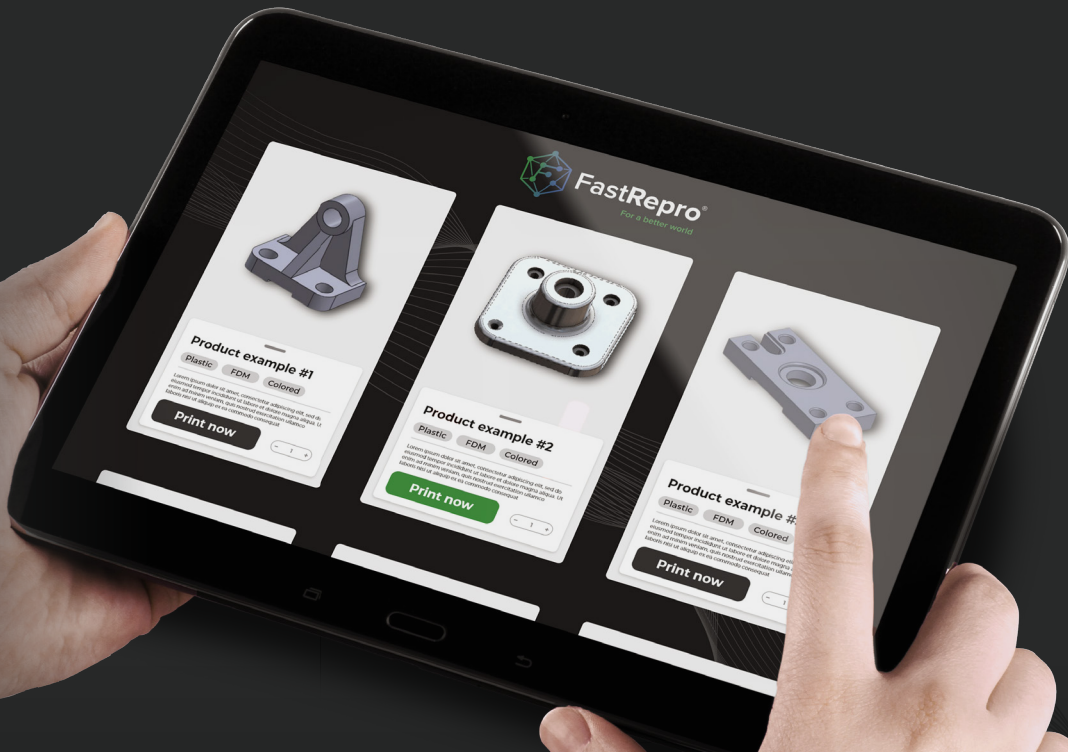
New challenges thanks to continuous security of the production line.



A digital warehouse represents a completely secure eco-system. This translates into a continuous traceability of the print files, from their deposit to their production. Thanks to this control, counterfeits, file thefts or any other modifications are directly identifiable.



Securing the production chain opens up new opportunities. The assurance provided by traceability and data encryption enables the creation of a trusting relationship with new external partners.



Secure the digital warehouse

Trusted third party for a secure, sustainable and eco-responsible industry



Digital trust for tomorrow's industry

MainChain provides out-of-stock parts with unmatched lead times. All exchanges are fully secure and automated. MainChain solves many problems in one solution. Among its features, product acceptance and quality control are integrated, as well as billing and ordering automation.

Secure and dematerialized production

MainChain makes additive manufacturing and distributed production accessible to all industry sectors. The creation of such a digital trust simplifies exchanges between actors from different sectors and allows new business models to emerge. MainChain is an accelerator for a sustainable and responsible industry.



Control

- > Information availability
- > Right to know
- > Information distribution

Certify

- > Data & Materials
- > Production
- > Tests

Monetize

- > Metadata
- > Data flow
- > Access to information

Archive

- > Access
- > Proof
- > Operations

Your first step towards additive manufacturing

FastRepro accompanies you



CONTACT US

FastRepro, the entry point to on-demand manufacturing and 3D printing.

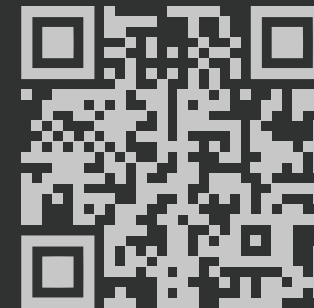
FastRepro allows you to reproduce the parts you want from the elements you have.

You can count on our team's expertise to support your project. During all stages of reverse engineering and production, we advise and guide you to obtain your parts in the best possible time.

Which material? Which technology? Feasibility study? We are here to answer you. With FastRepro, 3D printing is within reach and offers a tangible answer to maintenance issues.



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Let's plan
a meeting
Follow the link

