EXISTING ASSETS, NEW OPPORTUNITIES

By Christopher Hammar

Some of the most valuable opportunities are already inside your fence line. Discover how industrial facilities are uncovering hidden capacity, finding new value in existing assets, and making better decisions before investing in something new.

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About the Author

Christopher Hammar is a Key Account Manager with Allnorth, managing strategic accounts within the Pulp & Paper industry sector.

Christopher brings over 25 years of hands-on experience in Pulp and Paper, working on the paper machines for a number of companies including Irving Tissue, Cascades Containerboard Packaging, Catalyst Paper and others.

He has expertise in overseeing high-performance production environments with a strong focus on quality systems implementation, operational efficiency and continuous improvement initiatives.

Christopher is known for delivering measurable improvements in production efficiency, waste reduction, and product consistency.

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Better Understanding. Better Decisions. Better Outcomes.

Fiber-processing and industrial manufacturing facilities have always been resourceful.

For decades, facilities have adapted to changing product demands, evolving environmental requirements, production challenges, utility costs, and capital constraints. The result is that most facilities today are not operating exactly as originally designed. They are operating as the cumulative result of years of improvements, upgrades, modifications, and practical decisions made to keep production moving and the business competitive.

When organizations look for ways to improve performance, the conversation turns to new technology, equipment upgrades, or capital projects. Those investments can create meaningful value, but they are not the only way to improve performance.

Looking at the facility with fresh eyes can reveal practical improvements that make better use of the assets, systems, and resources already in place.

Before investing in something new, it may be worth asking:

Are we getting the maximum value from the assets, systems, and infrastructure we already have?

In many cases, meaningful improvements are identified not by adding something new, but by taking a fresh look at existing infrastructure, understanding how operational needs have evolved, and reconsidering how systems can support today's objectives.

Existing infrastructure is typically evaluated based on what it was designed to do. Additional value can emerge when it is evaluated based on what it could do today.

Example from the Field

During a review of a proposed process change, a cooling tower was expected to become unnecessary once new equipment was installed. A closer evaluation revealed an opportunity to recover heat that would otherwise have been lost and reuse it elsewhere in the facility. The equipment itself had not changed, but the way its value was being considered had.

Infrastructure can outlive
its original purpose
without outliving its value.

How Does Infrastructure Change Without Changing?

Industrial facilities evolve continuously.

Few mills operate today exactly as they did ten, twenty, or thirty years ago. Production targets change. Equipment is replaced. New projects are added. Environmental requirements evolve.

Decisions made to solve one challenge can influence how systems are used for years afterward.

As those changes accumulate, the role of infrastructure evolves as well. Production targets, customer quality requirements, utility demands, resource costs, and environmental priorities all change over time.

The infrastructure itself may remain largely unchanged, but its contribution to the operation can look very different than it did when the system was first installed.

What Can Existing Systems Do Today?

Many improvement projects begin with a discussion about what needs to be added.

An equally valuable discussion is what already exists.

Facilities that have operated for decades typically contain a wealth of infrastructure, operational knowledge, and system capability that extends beyond its original purpose. Equipment that was removed from service years ago may warrant a new review once water management, energy performance, or production objectives change. Infrastructure that appears likely to become redundant following a process modification may still have value under a different operating strategy.

The most successful facilities periodically step back and evaluate familiar systems from a new perspective. Rather than focusing exclusively on why a system was originally installed, they consider how it might contribute to current objectives and future priorities.

Some of the most practical improvements are created by making better use of systems that already exist.

Questions to Explore

- Which assets have not been reassessed in years?
- Are there systems operating below their original capacity?
- What infrastructure already exists that could support future objectives?
- Have recent operational changes altered how certain assets create value?

Example from the Field

A centri-cleaner system that had previously been shut down to reduce electrical costs a decade ago was later refurbished and returned to service after production and quality requirements changed.

What was once viewed as unnecessary became an important part of addressing updated quality challenges with dirt in OCC linerboard production.

Water Is Energy

Few examples illustrate the value of interconnected thinking better than water.

Water touches nearly every part of a fiber-processing facility. It is heated, cooled, pumped, recovered, treated, reused, and discharged, with energy influencing each step along the way. As a result, conversations about water efficiency are rarely just about water. They are often conversations about steam demand, energy consumption, production performance, and operating costs as well.

Valuable connections become visible only when water, steam, utility, and process systems are evaluated together rather than independently.

Questions to Explore

- How much water is being heated, treated, and discharged?
- Where is energy leaving the process today?
- Are condensate recovery opportunities being fully utilized?
- Can water reduction initiatives create energy savings elsewhere in the operation?
- Are water and energy projects being evaluated together?

Example from the Field

A dissolved air flotation (DAF) system had been taken out of service because Operators were never taught how to operate it effectively. Rather than replacing it with new infrastructure, the system was refurbished, operators were trained by the Process Engineer and coagulant supplier, and the equipment was brought back into service. The result was improved white water reuse and reduced fresh water demand. The increased system heat from white water reuse also improved drainage on the molding wheels.

Reducing water consumption can lower steam demand. Improvements in condensate recovery can influence both water use and boiler performance. Evaporator optimization can affect steam balances throughout the facility, while heat recovery initiatives may create benefits that extend well beyond utility savings.

What makes these efforts particularly valuable is that a change made in one part of the operation can create benefits somewhere else. A water-focused initiative may improve energy performance. Improvements in energy performance may uncover opportunities for water reuse, while a utility review may reveal process changes that support production goals.

Many of these benefits do not depend on breakthrough technologies. They come from understanding how systems interact and making better use of the energy and resources already moving through the facility.

More information on this topic can be found in our *Closing the Loop: Water and Energy Performance in Pulp and Paper* blog post.

The Challenge of Connected Systems

Water, energy, utility, and process systems rarely operate independently.

When changes in one area affect performance somewhere else, the answers are not always as straightforward as they first appear. An initiative that begins with a water objective may reveal energy benefits. A production constraint may be influenced by utility performance. A reliability issue may have implications beyond a single system or department.

The more interconnected a facility becomes, the more important it is to understand the broader context before narrowing in on a solution.

Looking Beyond the First Solution

Projects typically begin with a clear objective, whether that is improving reliability, reducing water consumption, increasing production, addressing a utility constraint, or lowering operating costs. The challenge is not identifying a problem. It is ensuring enough time is spent understanding the problem before committing to a solution.

Once equipment options are discussed, budgets are developed, and scope begins to take shape, it becomes increasingly difficult to explore alternatives. Assumptions gain momentum, and discussions can shift quickly from understanding the issue to implementing a preferred approach.

Organizations that consistently improve performance create space for discussion before scope becomes fixed and options begin to narrow. The goal is not consensus on a solution. It is developing a shared understanding of the problem and exploring the widest possible range of options before narrowing the path forward.

Better Decisions Require More Than One Perspective

One of the most effective ways to uncover alternatives is by bringing multiple perspectives into the conversation early.

Operations teams understand how the facility runs day-to-day. Maintenance teams understand reliability concerns and historical challenges. Engineering teams understand system capabilities and limitations. Production teams understand where constraints affect performance.

While each group contributes valuable insights, no single team sees the entire picture. When perspectives are shared early, valuable insights frequently emerge that would otherwise remain hidden within departmental boundaries.

An operational change being considered by one department may create benefits in another area of the facility. A reliability concern may align with a production objective. A utility upgrade may support both water and energy performance. Without cross-functional discussion, those connections can be easy to miss.

Valuable insights often emerge when operations, maintenance, engineering, production, and project teams evaluate challenges together rather than in isolation.

Questions to Explore

- Are we solving the underlying problem, or implementing an assumed solution?
- Have alternatives been explored before scope is finalized?
- Have operations, maintenance, engineering, and production all contributed to the discussion?

Example from the Field

During a major capital project, the initial plan to install a new pipeline for excess hot water recovery to a paper machine on the other side of the plant had already been identified by the operations team. However, building the new pipeline would significantly increase project costs and take weeks longer than desired to complete.

Once engineering, maintenance, and operators were brought into the discussion, a Kraft Mill Operator proposed repurposing an old, unused kraft stock line for water delivery. This new approach reduced implementation challenges by shortening the project timeline, lowering project costs through the reuse of existing infrastructure, and gaining buy-in from operations, who appreciated being part of the solution.

The Takeaway

Facilities evolve continuously, but the systems that support them are not always reassessed at the same pace.

Organizations create value when they revisit assumptions, involve multiple perspectives, and evaluate systems through the lens of current objectives rather than historical design intent.

The most valuable opportunity may not come from something new. It may come from looking at something familiar in a new and different way.

Contact our team to discuss how we can help you get more out of your facility.

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