8. Myths & Truths

The building industry is full of ideas that sound efficient - until you look at the data. Prefab bathrooms, central energy systems, “smart” automation - each promises to save time or money, yet many only address surface-level problems. To separate logistics from real performance, we look at every claim through three lenses: climate, function, and value.

8: Myths & Truths - What Really Drives Savings

The building industry is full of ideas that sound efficient until you examine actual performance. Prefab bathrooms, central energy systems, and smart automation each promise convenience, yet many only address surface-level problems rather than structural ones. To separate logistics fixes from true performance gains, Ekonod evaluates every claim through three lenses: climate, function, and value.

Myth 1: Ekonod is a bathroom module or a bathroom pod

Why this misconception exists

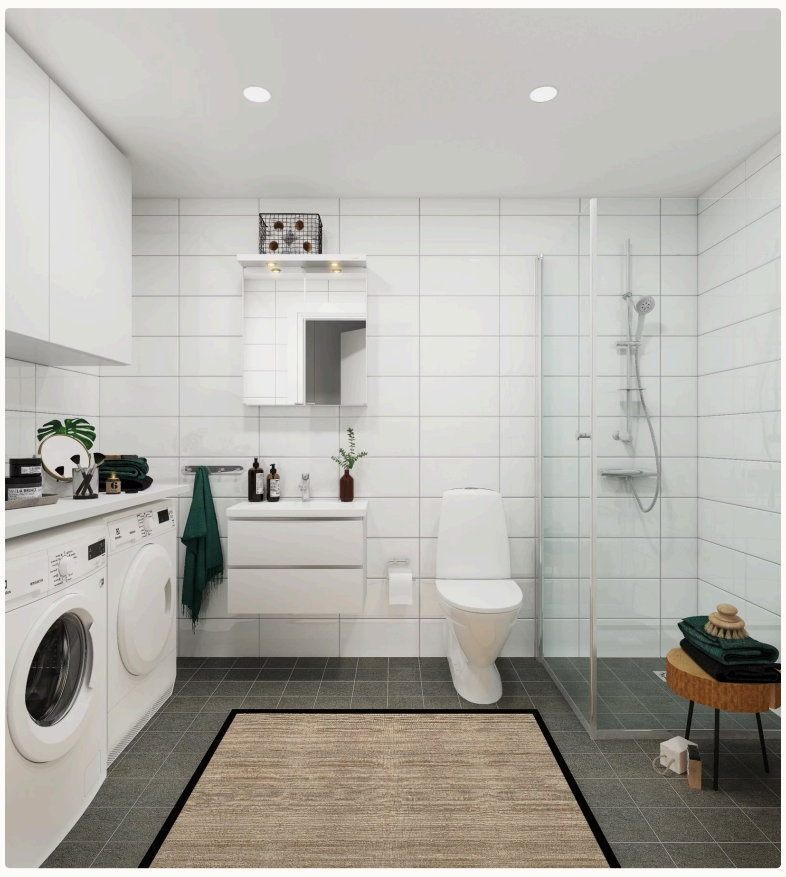
The construction industry has made significant progress in recent years by adopting prefabricated bathroom pods. These solutions address logistics, sequencing, and quality challenges inside the bathroom itself. As a result, many stakeholders now associate any innovation around bathrooms with “pods” or volumetric construction.

This is an understandable assumption - but it misses the core issue.

The real system problem

Bathroom pods optimise installation logistics, not building system logic.

Even with a high-quality pod, the surrounding building still relies on traditional centralised infrastructure:



- long domestic hot water circulation loops with permanent heat losses
- oversized circulation pumps running continuously
- balancing and tuning across risers and floors
- shared failure points that affect multiple apartments simultaneously

In other words, the most energy-intensive, failure-prone parts of the system remain unchanged.

What Ekonod actually changes

EkoNod treats the bathroom as the technical heart of the apartment, not as an isolated prefabricated object. It restructures how installations are organised and distributed by integrating:

- water and domestic hot water
- heating
- ventilation
- drainage
- electricity and controls
- moisture protection
- sensors, metering, and digital interfaces

This integration happens in a compact, lightweight installation hub designed to work across concrete, CLT, steel, and hybrid structures - without dictating architectural form.

> **Key insight**
>
> Bathroom pods improve how we build.
>
> Ekonod improves how buildings perform, operate, and age.

Myth 2: More hubs mean more failure points

The intuition - and why it’s misleading

At first glance, decentralisation appears to multiply components and therefore risk. Many traditional engineering models equate fewer units with higher reliability.

In building systems, the opposite is often true.

How centralisation concentrates risk

In centralised systems:

- a single pump or valve failure can disable an entire riser
- leaks propagate vertically through shafts
- maintenance often requires building-wide shutdowns
- fault tracing requires access to multiple apartments

Centralisation does not eliminate failures - it amplifies their consequences.

How decentralisation changes risk dynamics

With Ekonod, each apartment becomes its own technical zone:

- faults are isolated to one dwelling
- sensors detect leaks immediately and trigger automatic shut-off
- service is local and predictable
- no building-wide interruptions are required

This transforms failures from systemic events into contained incidents.

Implications

- Climate: elimination of 20–30% domestic hot water circulation losses
- Operations: simpler service, clearer responsibility, better monitoring
- Value: fewer insurance claims, more stable operating costs

Key insight

More modules do not increase risk.

They reduce the scale and impact of every failure.

Myth 3: Smart Control Systems Are Unreliable

The legacy concern

This concern comes from experience with old automation systems that were fragile or proprietary. Today the situation is the opposite. Smart control in residential buildings is standard across Northern Europe and proven at scale.

The current industry baseline

Across Northern Europe, decentralised and digitally controlled systems are already standard practice:

- In the Netherlands, the majority of new multi-family developments use local control logic
- In Germany, decentralised domestic hot water and ventilation control is widely adopted

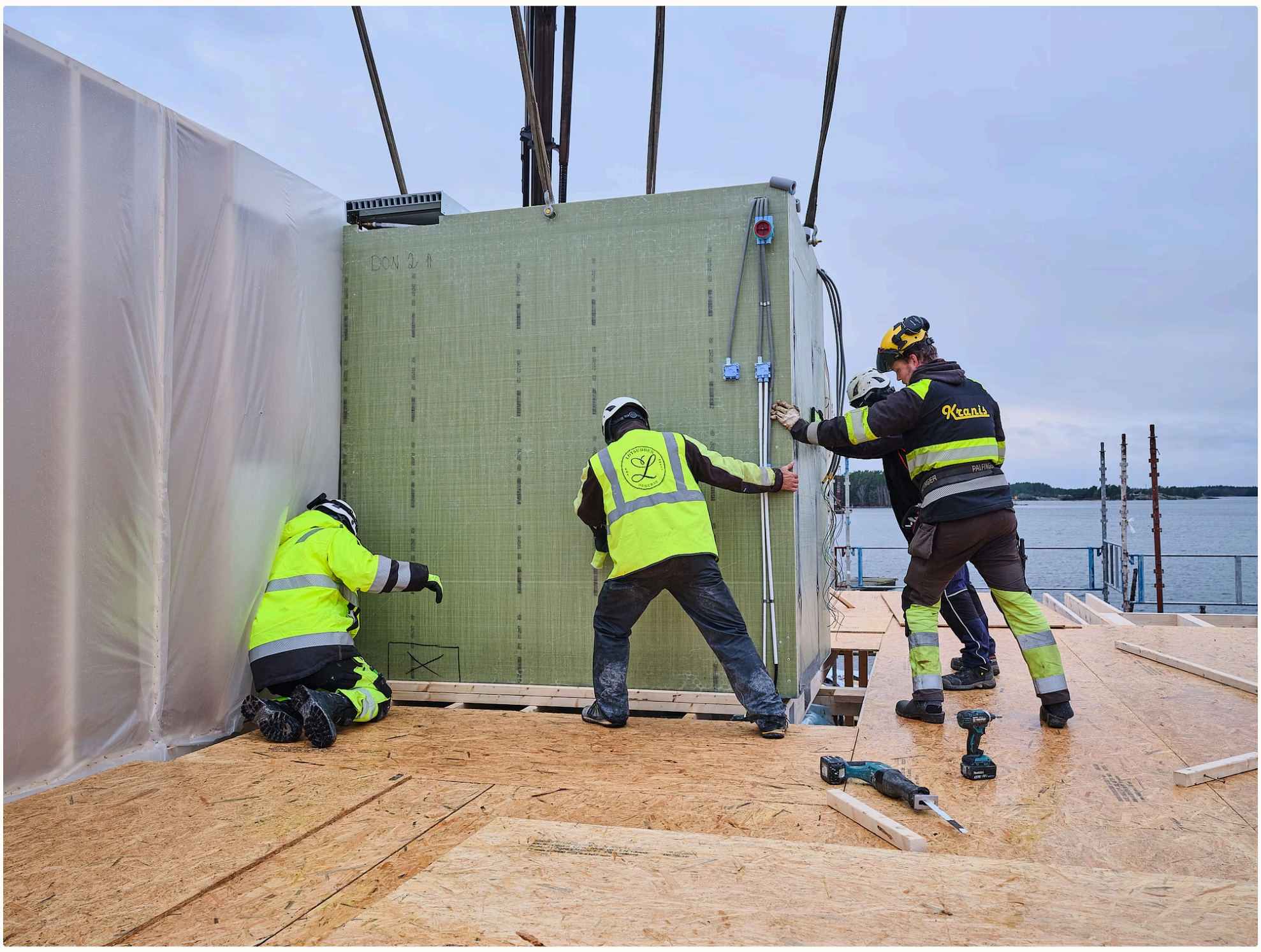
These systems are no longer experimental - they are mature and regulated.

How EkoNod approaches control

Ekonod uses open, well-established standards:

- Modbus for building automation and technical systems
- Matter for smart home and tenant-facing interfaces

This avoids vendor lock-in and ensures long-term compatibility.



Implications

- Climate: demand-driven operation reduces energy use and CO_2 emissions
- Function: simpler commissioning and automated optimisation
- Value: transparent data supports ESG reporting, financing, and asset management

Key insight

Modern control systems are not risky.

They are measurable, traceable, and future-proof.

Myth 4: The system limits architectural freedom

The traditional constraint

Centralised systems force architecture to adapt around:

- vertical shafts
- fixed wet cores
- rigid service zones
- minimum distances driven by plumbing logic

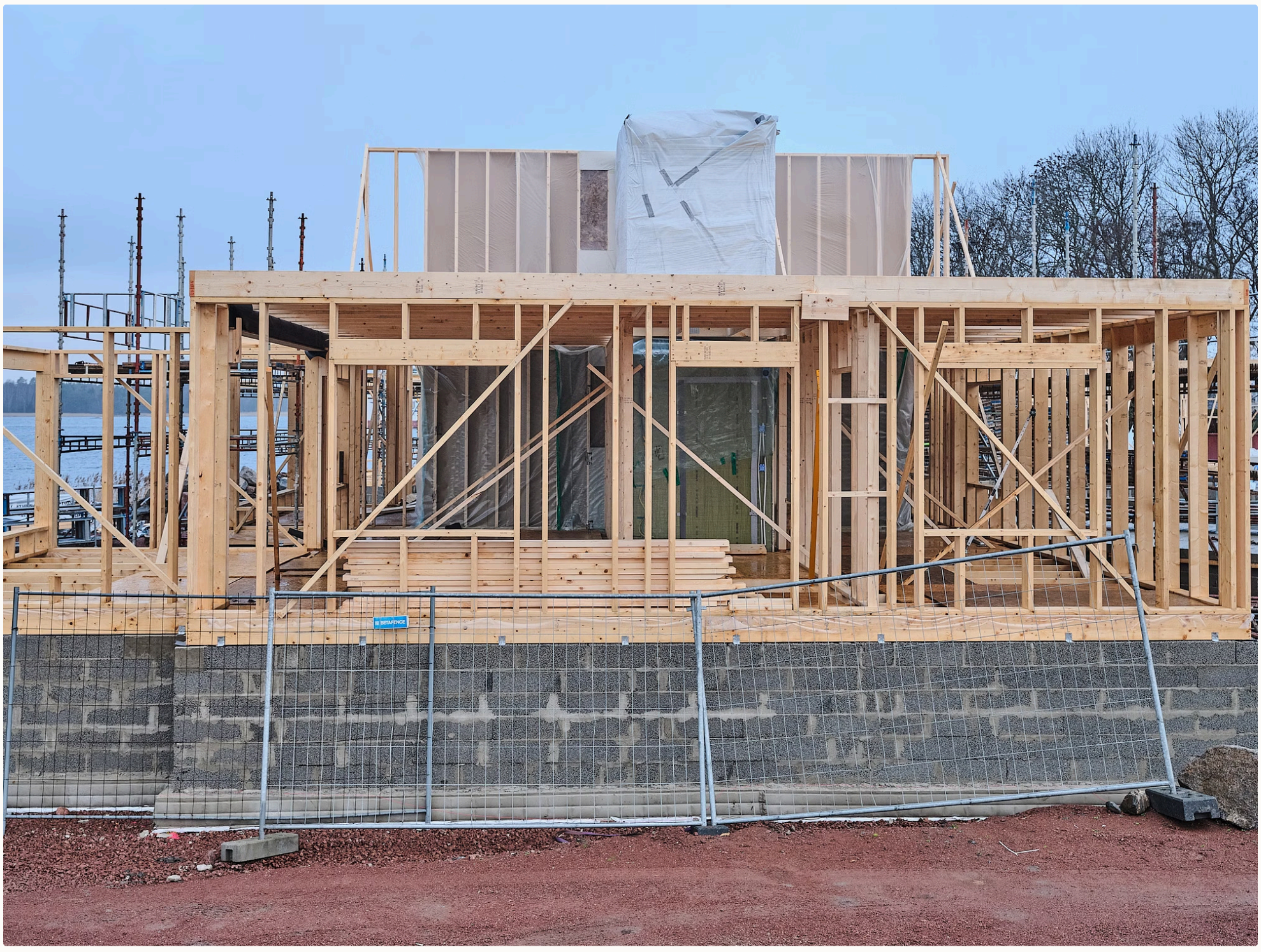
This often results in compromised layouts and reduced spatial quality.

What changes with Ekonod

Because system logic is local and compact, architects gain freedom to:

- move walls and optimise apartment layouts
- reduce or eliminate large vertical shafts
- increase ceiling heights
- place kitchens and bathrooms based on daylight, circulation, and use
- work freely in concrete, CLT, steel, or hybrid structures

The technical system adapts to the building - not the reverse.



Key insight

EkoNod does not constrain architecture.

It removes the constraints imposed by traditional infrastructure.

Myth 5: Prefab means lower quality

The on-site reality

Traditional on-site installation frequently involves:

- moisture exposure
- inconsistent sealing
- improvised detailing
- multiple trades working in confined spaces
- variable tolerances

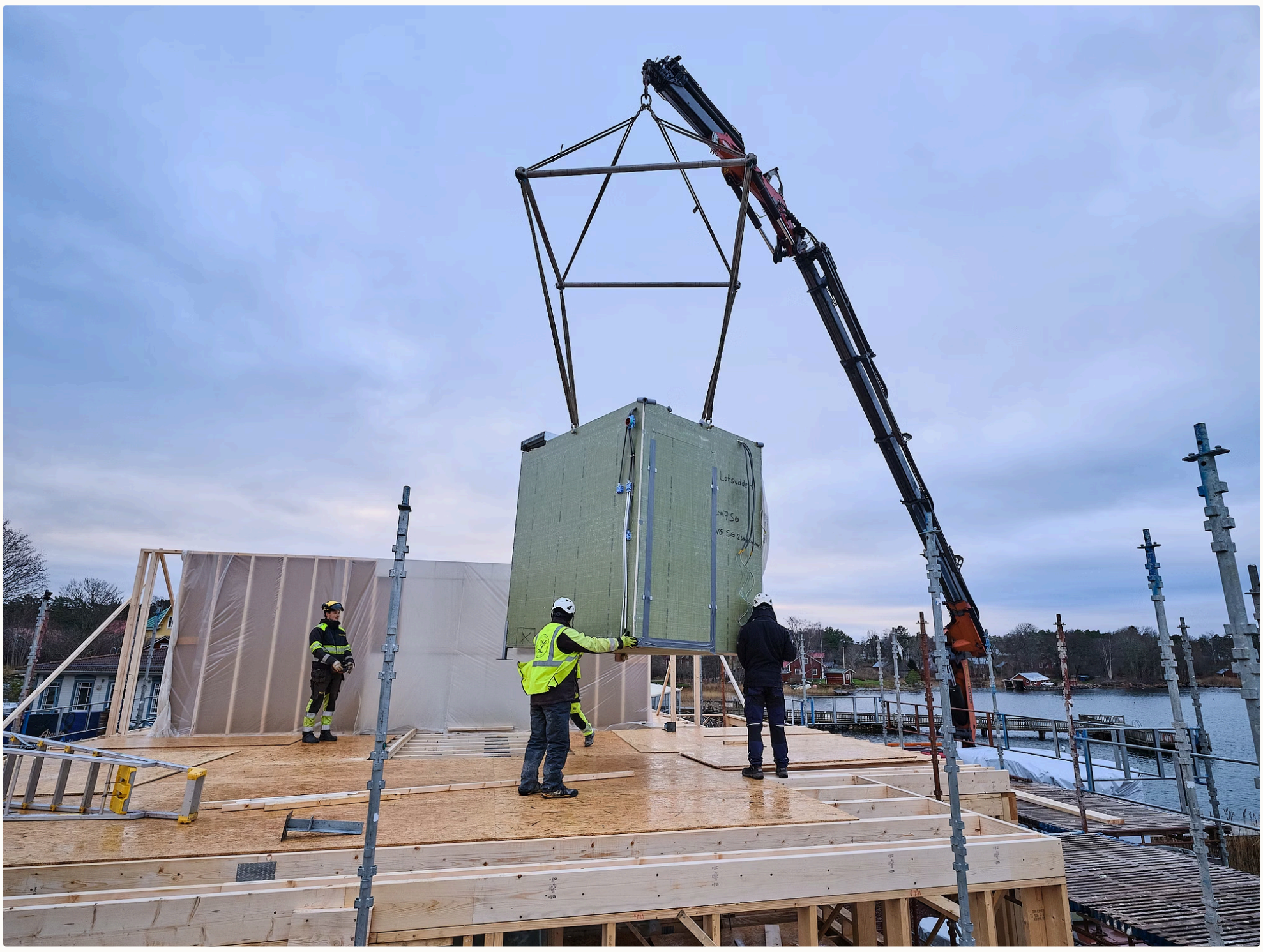
Even with skilled labour, outcomes vary significantly.

The industrial alternative

Ekonod installation hubs are:

- factory-built
- moisture-protected
- pressure-tested
- quality-assured
- identical across apartments

This creates consistency that on-site construction cannot reliably achieve.



Key insight

EkoNod does not constrain architecture.

It removes the constraints imposed by traditional infrastructure.

Myth 6: Decentralisation is more expensive

The narrow cost view

Comparing systems purely on equipment count often leads to misleading conclusions.

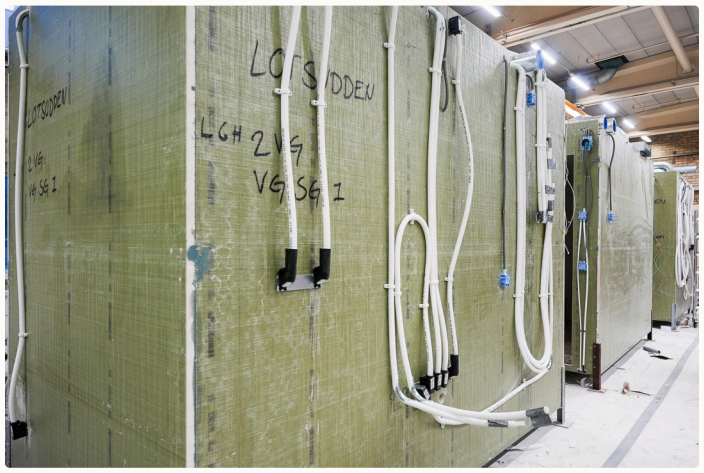
What matters is lifecycle cost, not component count.

Where Ekonod reduces cost

EkoNod lowers:

- installation labour and coordination
- material waste
- moisture-related damage
- domestic hot water energy losses
- construction time and financing costs
- long-term operation and maintenance

Additionally, reduced shaft space and thinner walls increase rentable or saleable area.



Key insight

For most projects, decentralisation improves ROI.

Higher performance replaces hidden cost.

Myth 7: “It won’t work with our building type”

The assumption

Many systems are tightly coupled to a specific construction method.

Ekonod is not.

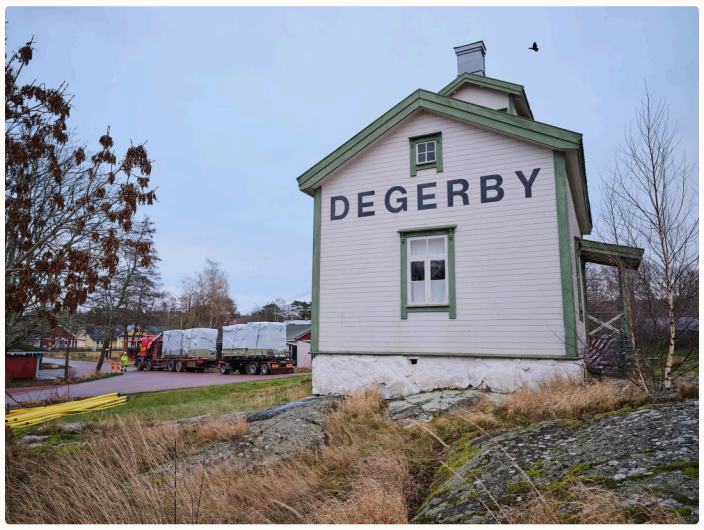
Structural compatibility

Ekonod is compatible with:

- CLT
- concrete
- steel
- hybrid structures
- modular and volumetric construction

It has been applied across:

- residential housing
- healthcare and assisted living
- social infrastructure
- mixed-use developments



Key insight

EkoNod is system logic, not a building method.

Myth 8: You have to buy the entire system from day one

The concern

Large system decisions are often perceived as irreversible commitments.

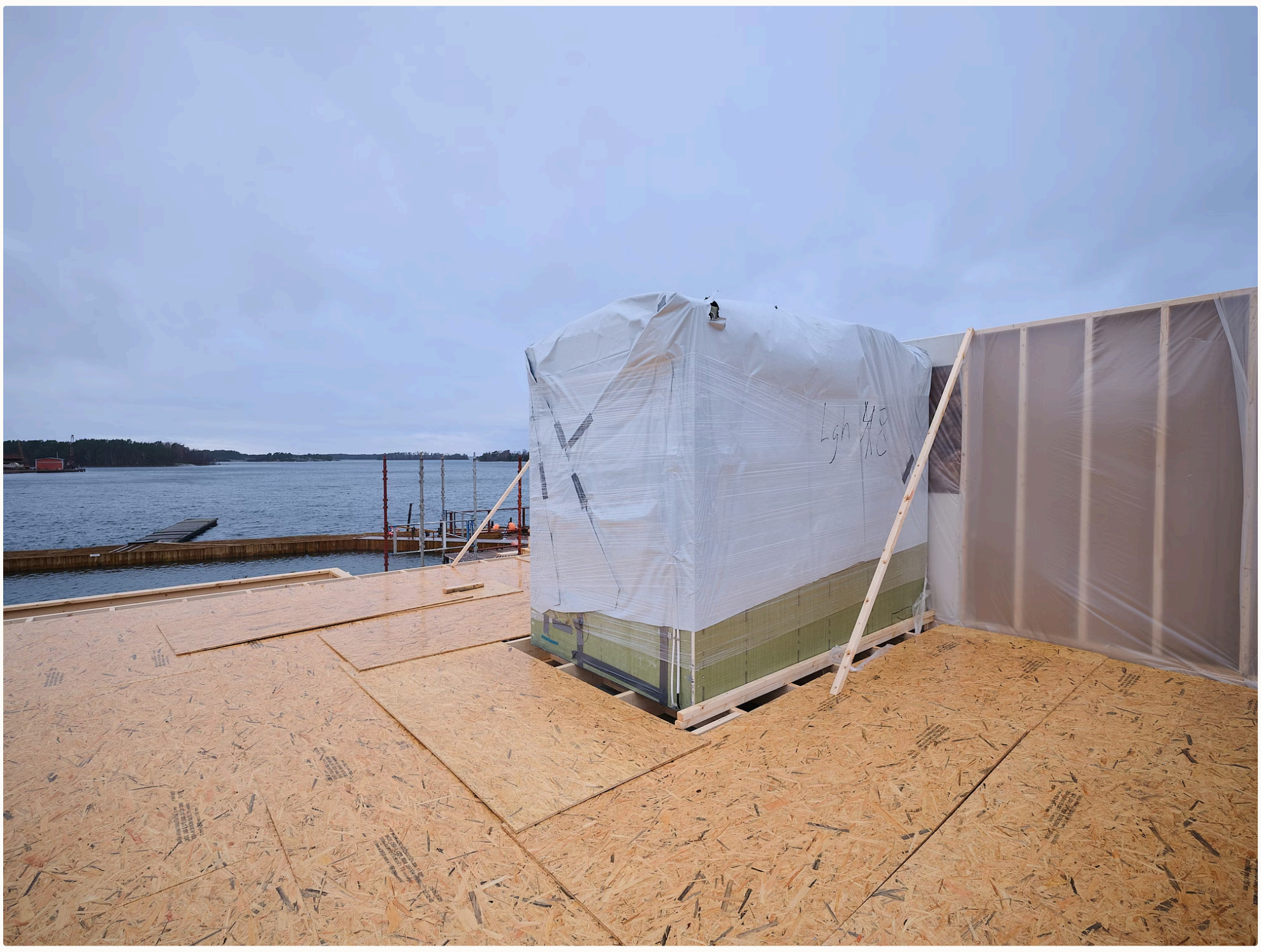
Ekonod is designed differently.

Modular adoption

Projects can start with:

- a single bathroom core
- one installation hub
- digital metering
- wastewater heat recovery
- system configuration studies
- design and MEP advisory services

Or move directly to full turnkey delivery.



Key insight

There is no lock-in.

You choose the scope - the logic remains consistent.

Closing perspective

EkoNod is not a pod.

It is not a gadget.

It is not a trend.

It is a systems rethink that makes buildings:

- clearer
- safer
- lighter
- more energy-efficient
- more predictable over time

A smarter way to build - grounded in performance, not hype.