

SWIMMER.

SCALABLE FLOATING POOLS FOR
NATURAL URBAN SWIMMING.

POLYPLAN KREIKENBAUM
ECOWORKS
POLYCON



Urban swimming as public infrastructure.

Cities are getting hotter. Public spaces are under pressure. And yet the demand for accessible, affordable outdoor swimming has never been greater.

At the same time, most cities sit alongside water they can't yet swim in for different reasons: rivers, canals, docks, water that is present, visible, and largely unused.

SWIMMER is a floating pool system that brings swimming back to the urban environment: not as a luxury amenity, not as a one-off event, but as durable public infrastructure.

Clean, guaranteed swimming water, flexible programming, a financially viable delivery model, and the capacity to transform an underused waterfront into a living public space.

Natural floating pools are a proven solution.



The Millenium pool in the harbor of Gothenburg, developed and constructed by POLYPLAN with POLYCON, combines different types of floating pools, sun decks and a sauna with additional amenities on land. Despite the insufficient quality of the water in the dock itself, people can enjoy a swim in perfect water in the atmosphere of the former port district.

The SWIMMER proposition.

SCALABLE IN SIZE
AND PROGRAMME

INNOVATIVE SUSTAINABLE
CONSTRUCTION IN WOOD

GUARANTEED WATER QUALITY
WITH BIOLOGICAL TREATMENT

RESILIENCE THROUGH A
HYBRID SWIMMING OFFER

LEASE MODEL IN LINE
WITH PUBLIC BUDGETS

SWIMMER is a system that combines **scalable floating pool infrastructure** with a **variable financial model**.

The pool and its surrounding programme can be **adapted in size and configuration** according to the ambitions, location and capabilities of the operator or municipality.

Water quality is guaranteed through **biological water treatment** without chemicals, fully independent of the quality of the surrounding water body.

SWIMMER can serve as a **hybrid swimming place**: a **guaranteed pool experience at all times, with direct access to the surrounding water** from floating platforms **when conditions allow**.

SWIMMER is offered primarily through a **lease model** that includes **technical maintenance and performance guarantees** for a predefined contract duration.

That duration corresponds directly to the **construction method**: an innovative, sustainable approach using **wood as the primary material**, chosen for its durability and its low environmental footprint.

SWIMMER transforms existing and underused waterfronts into **active, welcoming public destinations**.

The SWIMMER proposition.



Visualisation of the
standard model of SWIMMER

1. A POOL THAT FITS THE CONTEXT

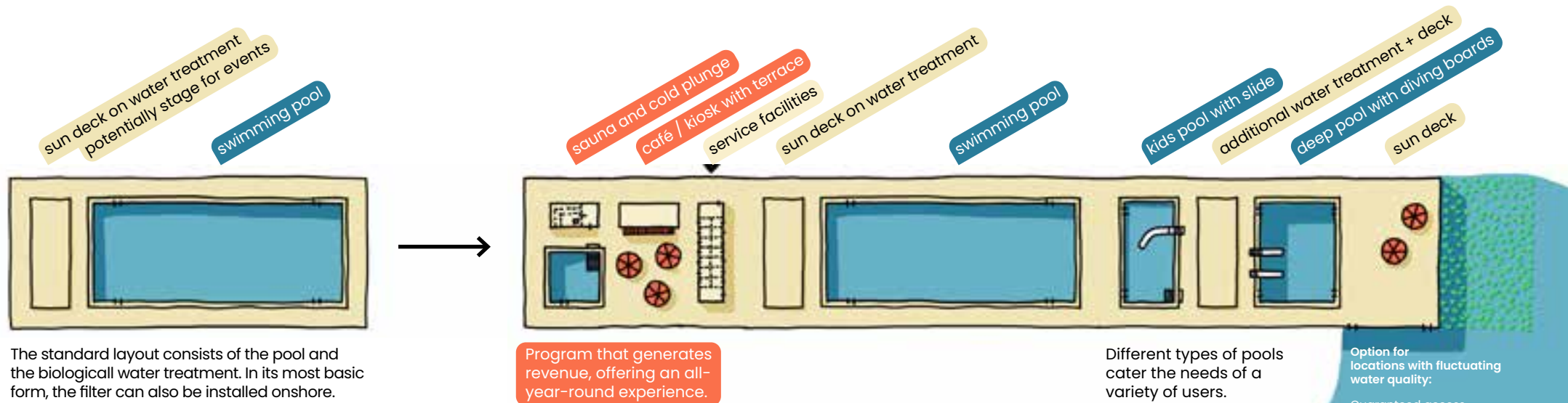
Every site is different, every budget is different, every ambition is different. SWIMMER is built around a modular logic that responds to all three.

The pool itself comes in different sizes, adjustable in both length and width to fit the available waterway and the scale of the project. Around it, a second level of customisation opens up: service buildings, changing facilities, a kiosk, sauna, sun decks, and platforms giving visitors access to the surrounding open water. Start with a lean, affordable installation and expand over time, or design a full waterfront destination from day one.

This additional programme does more than broaden the offer. A kiosk, sauna or event space can generate revenues that help to partially finance the swimming infrastructure itself, making the overall proposition more viable for operators and municipalities working with limited budgets.

Because the structure is modular and floating, it can be continuously adapted as needs and ambitions evolve, and relocated to a different site entirely when the context calls for it.

Scalable in program, experience and size.



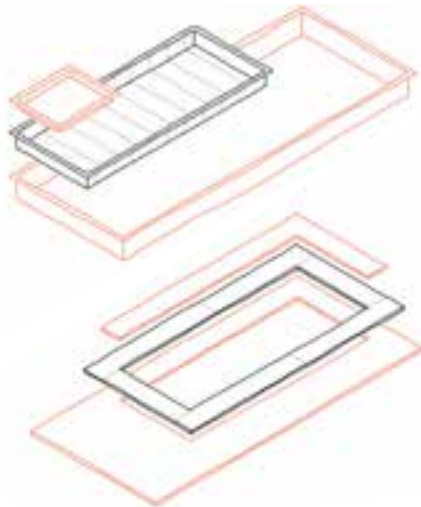
▲ From basic swimming pool to a hybrid leisure destination.

The pool:

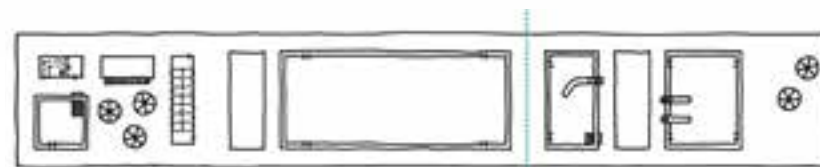
Undeep kids splash pool
↓
Typical swimming pool
↓
Olympic size swimming pool

The deck:

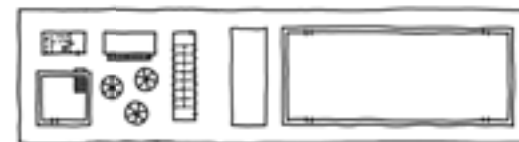
Minimal deck for basic access
↓
Standard deck
↓
Maximised deck for sunbathing



▲ Flexible dimensions of pool and deck



The floating structure can be separated at each point.



The full structure or only parts of it can be relocated to another destination.

▲ Adaptable and relocatable

2. BUILT TO LAST, AND BUILT TO RETURN

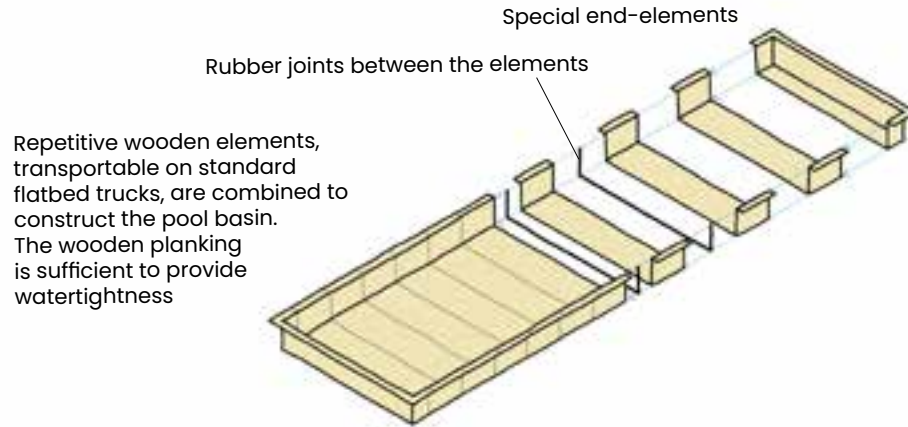
SWIMMER is constructed almost entirely from wood, an innovative choice that sets it apart from conventional floating pool structures, and one that is as practical as it is principled. Wood is a renewable, carbon-storing material with a long proven history in water infrastructure, from lock gates and harbour piles to the original floating pools of 19th century European cities. In a contemporary context, it combines sustainability with durability, warmth with structural performance.

The concept is developed in detail to match the specific demands of a floating aquatic structure, different wood species are selected according to the conditions of their exposure to water. All elements are prefabricated in a workshop and assembled on site, making installation fast and minimally disruptive.

This careful definition of the concept, from materials to detailing and construction method, directly determines the lifespan of the structure, and that lifespan is the basis of the lease contract. The contract duration matches the designed life of the installation: a guarantee to the client, not an estimate. Read more about the financial model of SWIMMER.

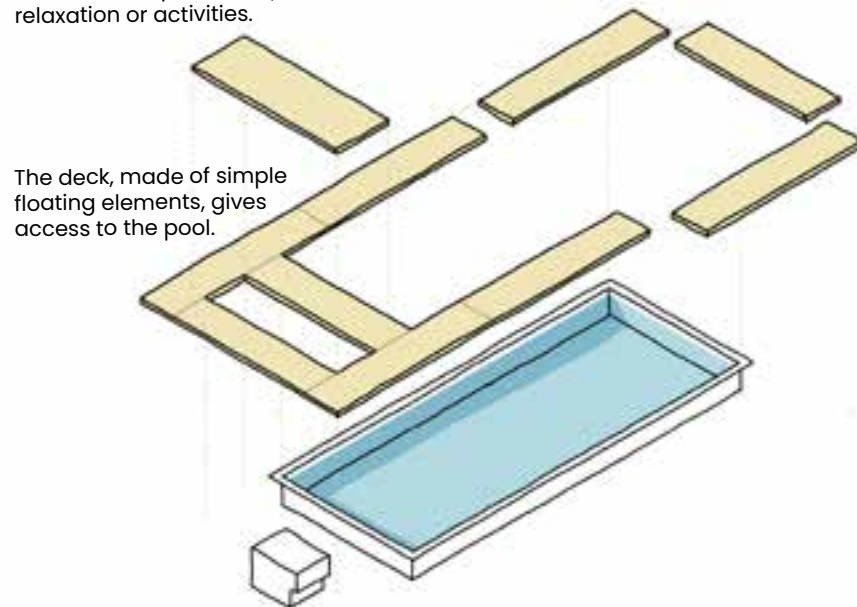
At the end of the contract, all reusable elements, like timber in good condition, steel connections, floaters and mechanical equipment, are recovered for use in new or refurbished installations. What cannot be reused is responsibly recycled. If it is the wish to retain the pool beyond the original contract period, a thorough makeover can extend its life for further years of use, at the same or a different location, with the SWIMMER team remaining the service and maintenance partner.

An innovative floating construction method.



1 - A pool made of modular wooden elements

A terrace floats above the biological fast filter and provides space for relaxation or activities.

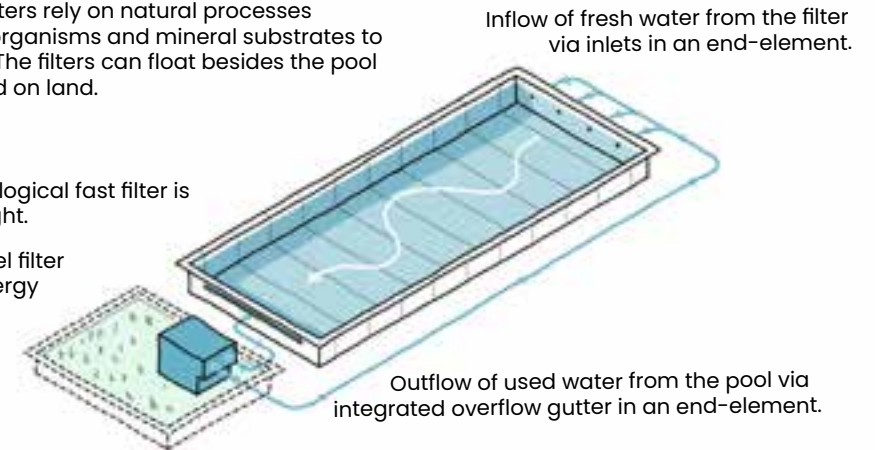


3 - Wooden decks around the pool

The biological filters rely on natural processes involving microorganisms and mineral substrates to treat the water. The filters can float besides the pool or can be placed on land.

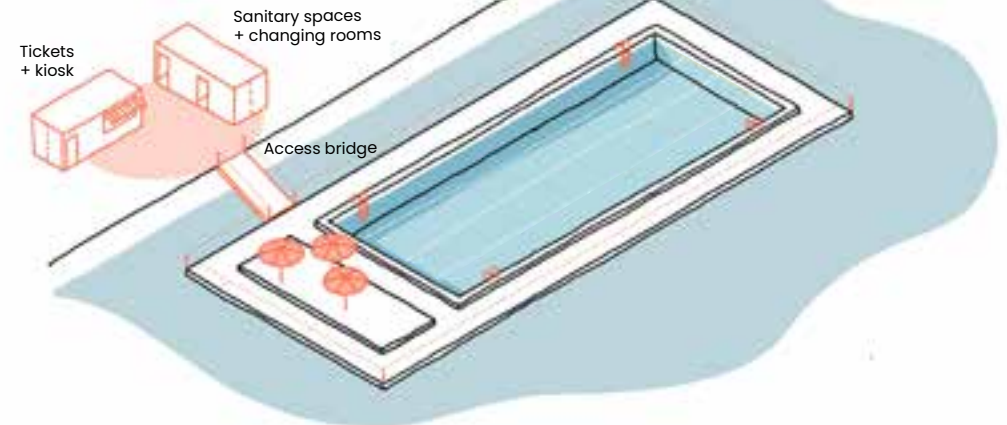
Option 1: The biological fast filter is compact and light.

Option 2: A gravel filter requires less energy but more space.



2 - The biological filters guarantee the water quality

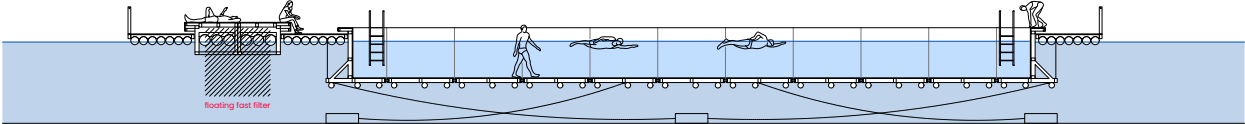
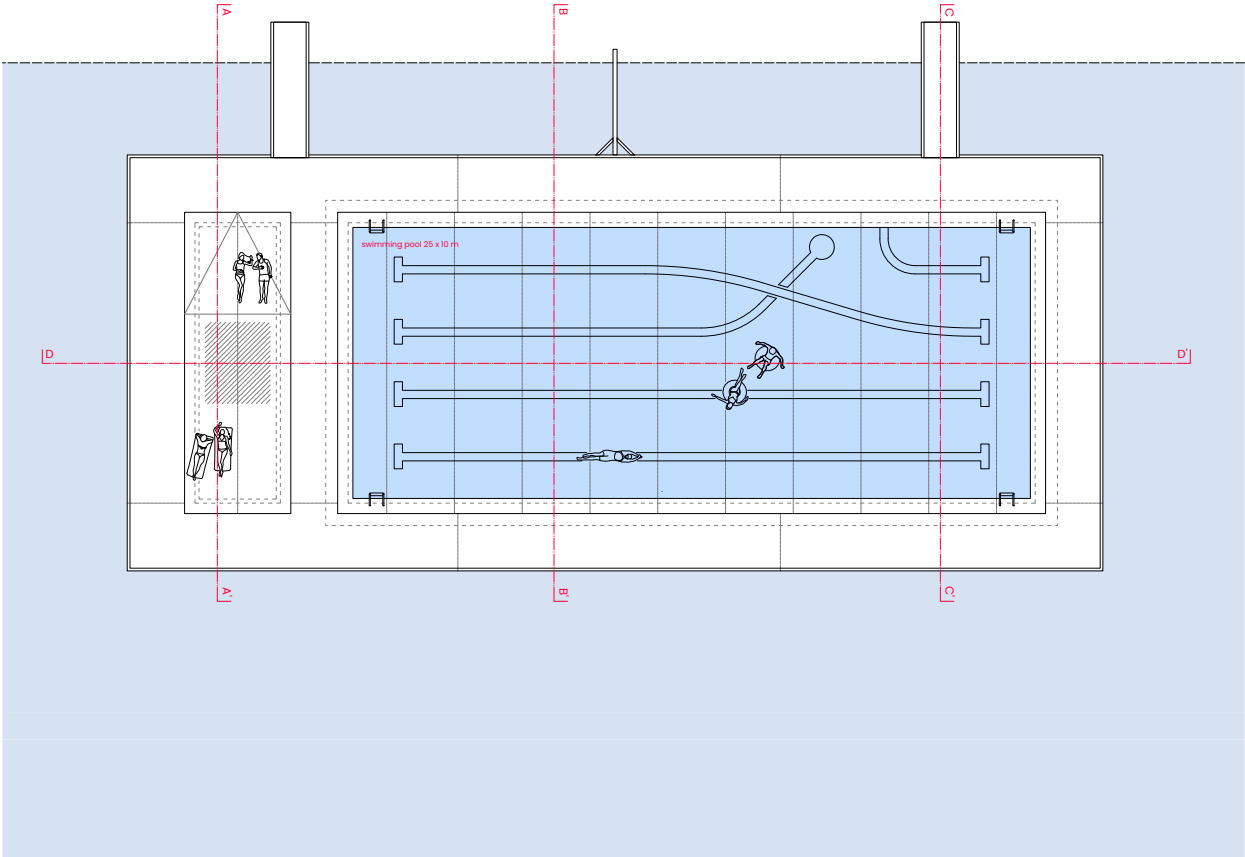
All additional necessary equipment and infrastructure is placed in or on the floating pool and / or on land to organize a comfortable swimming experience.



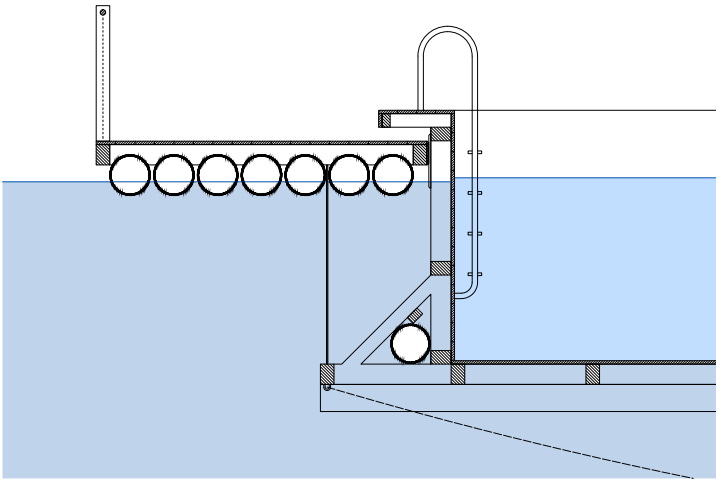
4 - Additional equipment

A system ready to deploy.

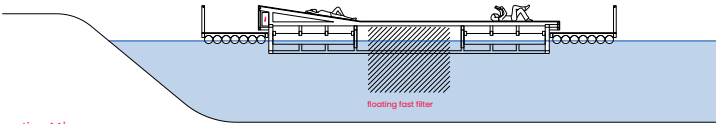
The technical and structural system of SWIMMER is conceptualised in detail, ready to be developed into concrete project at your specific location for a fast and reliable realisation within a short time.



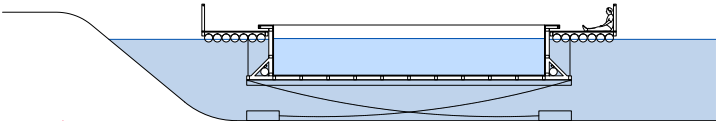
section DD'



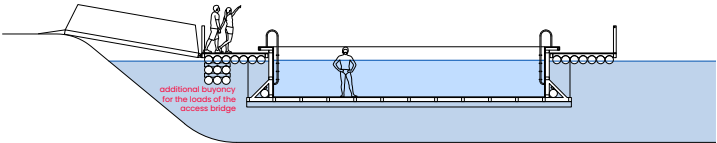
detail
scale 1/20



section AA'



section BB'



section CC'

3. CLEAN WATER, GUARANTEED

Today, the water quality in canals, rivers, and harbours still varies enormously: some bodies of water are close to bathing standards, others are not, and many fluctuate seasonally in ways that make reliable open water swimming difficult regardless of long-term ambitions.

SWIMMER sidesteps that uncertainty entirely. The pool operates on a closed water circuit, fully independent of the surrounding water body. Treatment is carried out by a biological fast filter: a compact, patented system in which water is continuously purified by microorganisms within an optimised filter substrate, without the use of any chemicals. The system is dimensioned according to the regulatory frameworks for natural swimming pools, and water quality is independently verified throughout the season.

For installations where a larger footprint is acceptable, an open alternative, using water plants and gravel beds, is also possible. In both cases, the result is clean, clear water that meets bathing standards, season after season, regardless of what is happening in the canal outside.

For operators who want to go further, SWIMMER can become a hybrid swimming place. By providing access to the surrounding open water, it extends the offer to those who want to swim directly in the natural waterway while still offering a safe option for those preferring the boundaries of a pool, or for everyone at moments when the quality of the open water is not fit for swimming.

A natural swimming pool with biological water treatment.



A submerged filter with gravel and plants under the water surface.



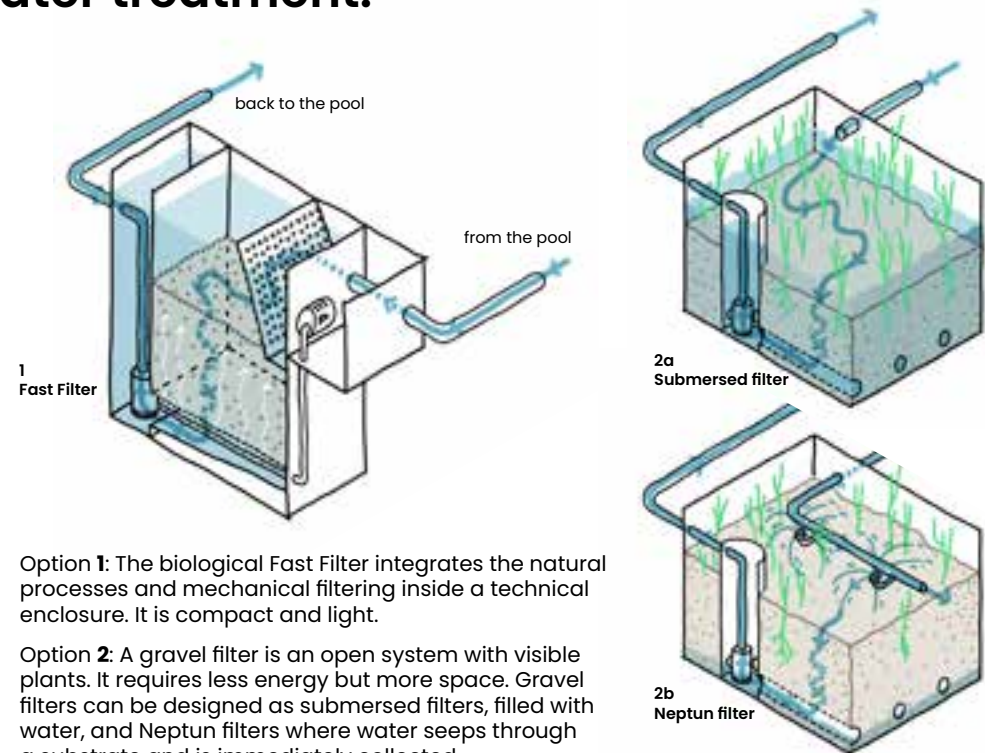
Fast Filter inside its casing before installation.



A Neptun-type filter where water is sprayed over and seeps through gravel.



Open layout of different filter typologies.



Option 1: The biological Fast Filter integrates the natural processes and mechanical filtering inside a technical enclosure. It is compact and light.

Option 2: A gravel filter is an open system with visible plants. It requires less energy but more space. Gravel filters can be designed as submersed filters, filled with water, and Neptun filters where water seeps through a substrate and is immediately collected.

Biological treatment

Biological water treatment is a clear example of **nature-based solutions applied in practice**. In a natural swimming pool, water quality is maintained by an ecosystem of microorganisms working together with a mineral filter material, achieving full **regulatory compliance without the use of any chemicals**.

Microorganisms, present in the water but concentrated mainly on the filter material, break down organic matter, nutrients and harmful bacteria. The filter material itself, a selection of specific mineral gravels, acts as a mechanical filter for suspended particles and contaminants, while also binding nutrients to keep algae growth to a minimum. In an open system, plants can further support this process.

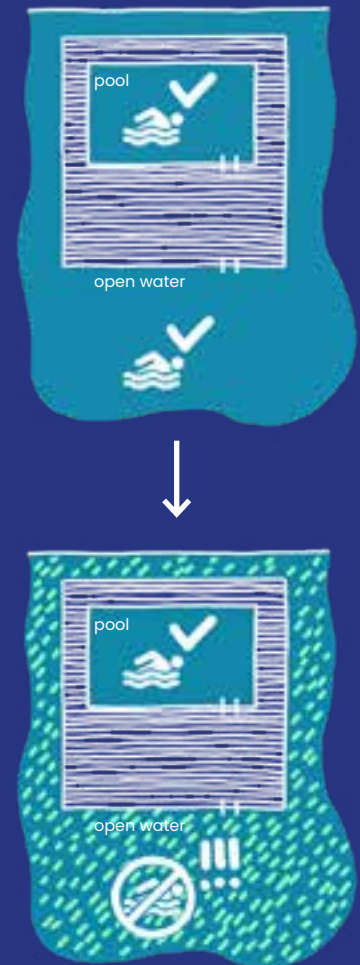
Monitoring and control

The system's pumps and automatic valves are steered by a PLC that bases its decisions on a wide range of data sources. Multiple sensors in the pool and the filter track water levels, temperature and other physical and chemical parameters, complemented by manually entered data, such as swimmer numbers or lab results, and automated inputs like weather conditions. By combining these sources, the PLC continuously adjusts filter operation, **guaranteeing water quality** at all times while **keeping energy consumption and maintenance to a minimum**. The fully automated setup is linked to an online database and control panel, giving our experts secure remote access whenever needed.

4. STRUCTURAL RESILIENCE THROUGH A HYBRID SWIMMING OFFER

Urban water quality is under increasing pressure. Hotter and sunnier summers accelerate the growth of blue-green algae that can render open water unsafe for swimming within days. Consequently, temporary closures of swimming zones leave residents without access to water at the moments they need it most. As climate projections point to an increased frequency of such incidents, making resilience a core criterion for any new public swimming investment.

SWIMMER's closed biological treatment system guarantees safe swimming water at all times, independent of conditions in the surrounding water. When this is open for swimming, SWIMMER's decks serve as a base for those who want to swim directly in the open water, while the pool itself remains available for anyone who prefers the security of shallower treated water. When a blue-green algae bloom or other water quality incident closes the surrounding water, the pool continues to operate. A limited but guaranteed swimming experience, for everyone, at all times.



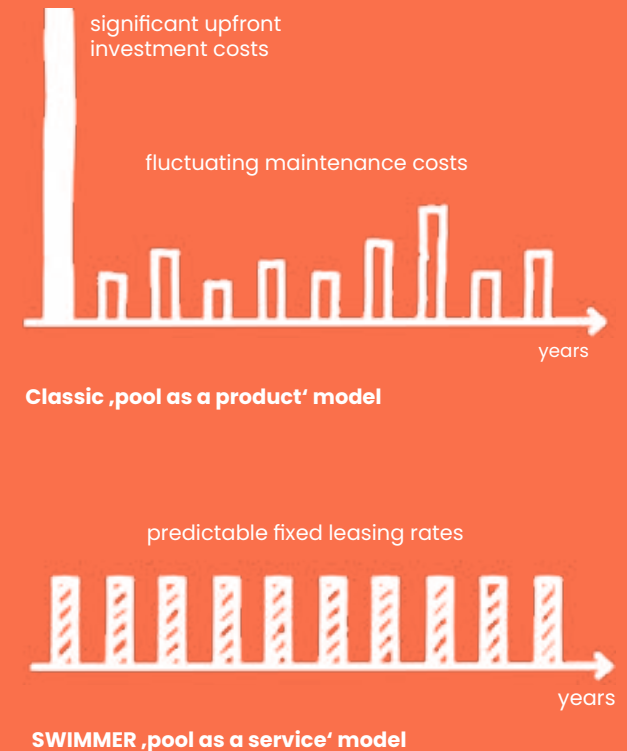
The floating pool remains open at all times, even during a cyanobacteria bloom.

5. A FINANCIAL MODEL DESIGNED FOR PUBLIC BUDGETS

Creating new public swimming infrastructure sounds expensive. SWIMMER is designed to change that calculation.

The primary model is a lease: access to the pool for an agreed period, with costs spread over time rather than requiring full capital investment upfront. Maintenance, technical servicing and performance are included. The only responsibility on the client's side is the operation of the pool. The annual cost is fixed and predictable, fitting naturally within multi-year budget planning, and the contract duration is guaranteed by the construction, not estimated after the fact.

For operators who prefer ownership from the outset, outright purchase is possible. And for those who want to minimise operational complexity, a fully managed turnkey model can be considered.



New life for urban waterfronts

Copenhagen is consistently ranked among the world's most liveable cities. Access to water throughout the city, for cooling off and for pleasure, defines the quality of life for its residents and the appeal of the city for visitors alike. Swimming takes place in open water and in floating pools.

Former canals, harbours and docks, locations that once defined a city's economy, are the natural home for **SWIMMER**. The water is there, the quays are there, and the potential is obvious. A floating pool becomes the destination that draws people to the water's edge to spend time in a place that feels alive. The extended programme around the pool means the site works across a wide range of visitors and times of day, extending the active season and creating the kind of consistent footfall that gives a location a new identity. The effects are tangible: a stronger sense of place, improved perception of safety and quality, and a new chapter for waterfronts that have been waiting for one.

This logic extends beyond post-industrial water. Urban lakes, scenic reservoirs, river bends, locations where the landscape is already beautiful but offers little more than something to look at, are equally well suited. **SWIMMER** adds usability to a passive amenity, turning it into an active public space without altering its essential character.

TEAM AND COLLABORATION

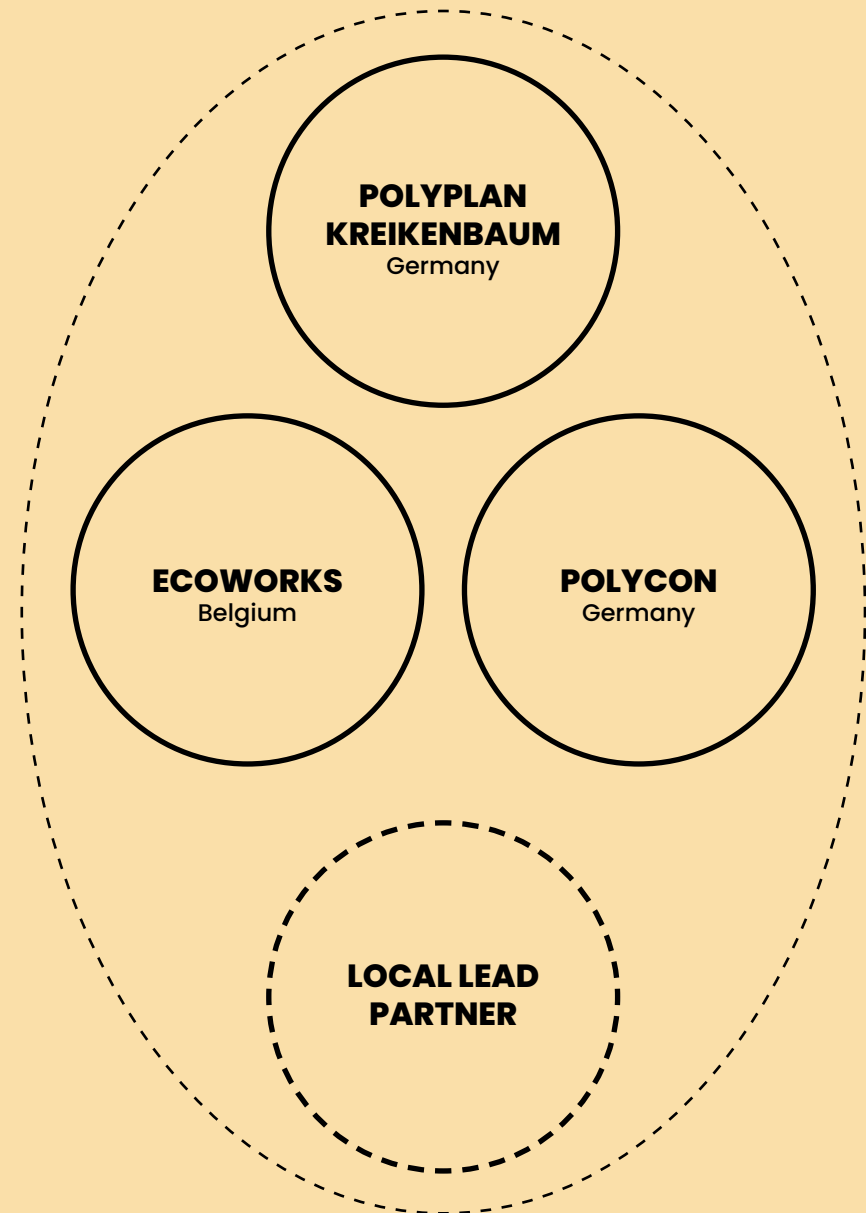
SWIMMER is developed and delivered by an experienced team of specialist partners, each with a defined role across the full project lifecycle.

POLYPLAN KREIKENBAUM (Germany) is the engineering backbone of the system. They design the pool configuration, dimension the water treatment system, develop the digital monitoring and control software, and oversee maintenance and operation throughout the contract period. Polyplan also trains local staff, whether municipal employees or a third-party operator, for the day-to-day running of the facility.

POLYCON (Germany) is responsible for the technical production of the installation: manufacturing and assembling the water treatment elements, developing the floating structure and pool construction, and coordinating with specialist woodworkers for the fabrication of the wooden components. For German projects, Polycon takes the lead partner role.

ECOWORKS (Belgium) is co-developer of SWIMMER, bringing specific expertise in natural swimming infrastructure and the local regulatory and market context. For Belgian projects, Ecoworks takes the lead partner role.

For the concrete development of a specific project, a project team is formed with a local lead partner who is the single point of contact for the client throughout development, delivery and operation. The lead partner coordinates the project team together with Polyplan and Polycon. The local lead partner is preferably a member of the Polyplan International Network active in Germany, France, the UK, the Netherlands and Belgium.



Decades of experience in the realisation and maintenance of natural swimming places.



Natuurlijk De Loete
Haastrecht, The Netherlands



Borden Park Pool
Edmonton, Canada



Naturbad Riehen
Riehen, Switzerland



Baignade Naturelle Du Grand Chambord
Mont-Près-Chambord, France



Millenium Pool
Gothenburg, Sweden



Schoonhoven Swimming Pond
Aarschot, Belgium



Temporara pool FLOW
Brussels, Belgium

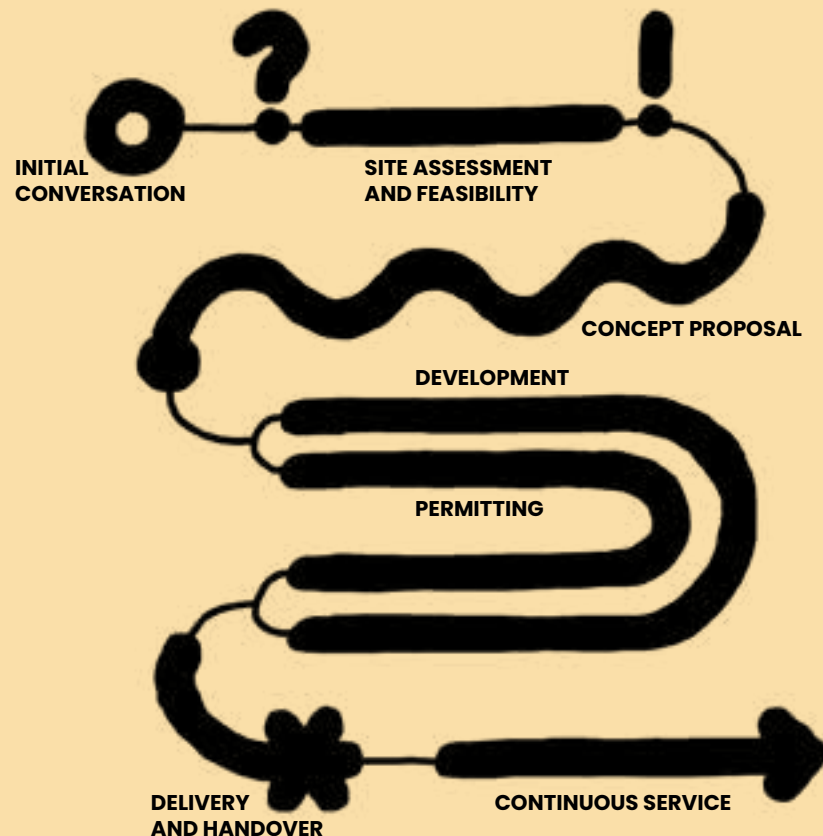


Straussvey Sponge Courtyard
Copenhagen, Denmark



Havenbadet
Aarhus, Denmark

GETTING STARTED



1. INITIAL CONVERSATION: a first meeting to understand the site, the ambitions and the constraints. No commitment required.

2. SITE ASSESSMENT AND FEASIBILITY: the project team assesses the location: water conditions, access, anchoring, regulatory context and programme possibilities. A first indication of scale, cost and timeline follows.

3. CONCEPT PROPOSAL: a tailored proposal covering pool configuration, programme, delivery model (lease, purchase or turnkey) and a project planning. This forms the basis for a decision.

4. DEVELOPMENT AND PERMITTING: once a direction is agreed, the project team handles detailed design and procurement. Regulatory submissions are prepared by the project team; depending on local procedures and preferences, the client, typically the municipality, can take an active role in the permitting process, drawing on its existing relationships with local authorities.

5. DELIVERY AND HANDOVER: prefabricated elements are assembled on site within a few days. The local team is trained. The pool opens.

6. ONGOING SERVICE: Polyplan monitors and guarantees performance throughout the contract period. The local lead partner remains the client's contact for any questions or needs that arise.

SWIMMER.

... also for non-swimmers!

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