

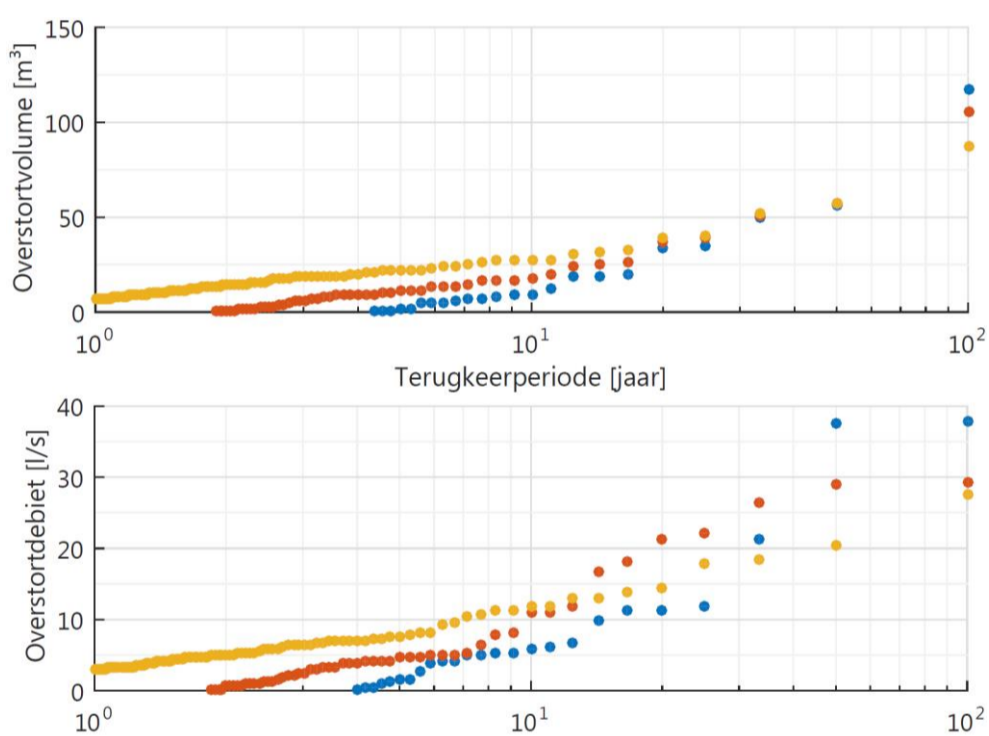
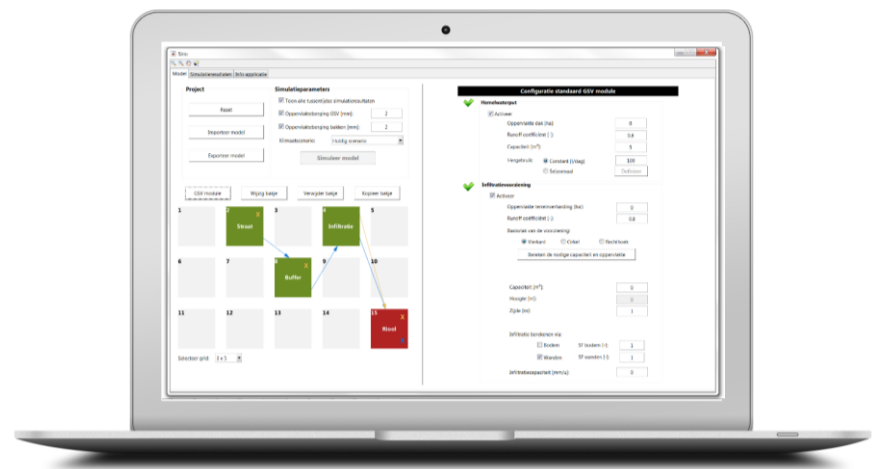
# Sirio

## Design efficient rainwater systems

### New calculation tool to design rainwater systems

Sirio is a new software tool to design optimal rainwater systems. The software incorporates a state-of-the-art simulation engine developed at university. The tool and engine were developed in close cooperation with various engineering firms, governments and technology providers.

Efficient water systems become increasingly important to create cost-optimal, and climate proof cities and industrial sites. **But designing such systems is challenging: what is the safest and most resilient configuration to capture extreme rainfall events? How can we assure our investments are cost-efficient? And how can we achieve optimal rainwater harvesting and save costs? Sirio can answer these questions quickly and yield optimal designs.**



### Directly from design to simulations

Sirio has a simple to use interface, which makes the translation from concepts or specific designs to Sirio easy. Sirio uses parameters that can be linked directly to any design, such as the dimensions of storage basins, drainage areas and hydraulic. Due to its versatility, alternative designs can be compared in a snap.

### Simulate 100 years in seconds

Sirio simulates a timeseries of 100 years of rainfall, minute by minute. **Rainwater systems can only be designed correctly through such long term and continuous simulations.** Such simulations account for the high variability in rainfall and antecedent conditions in the system. **The highly accurate and advanced simulation engine developed at university made it possible to do these simulation in just a few seconds.** It is also possible to quantify the impact of climate change, and create climate robust designs.

### See what matters at a glance

Sirio automatically post-processes all simulation results through advanced statistics, and translates these to direct design criteria. Sirio shows mass balances, overflow characteristics, performs a rainwater harvesting analysis and quantifies how often your buffers will be empty. All results are stored in reports, ready to distribute along partners.

### Interested?

Do you want to try Sirio yourself? Do you want us to analyse the project you are currently working on? **Then do not hesitate to contact us via [vincent.wolfs@sumaquab.be](mailto:vincent.wolfs@sumaquab.be)**

Sumaquab is a Belgian university spin-off bringing the newest science to practice. We are specialized in water management, optimal water system designs, deployment of innovative technologies and impacts of climate change.

