Tramola

Managing MATSim Scenarios

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MATSim User Meeting
March 22, 2021

Simunto

MATSim Workflow

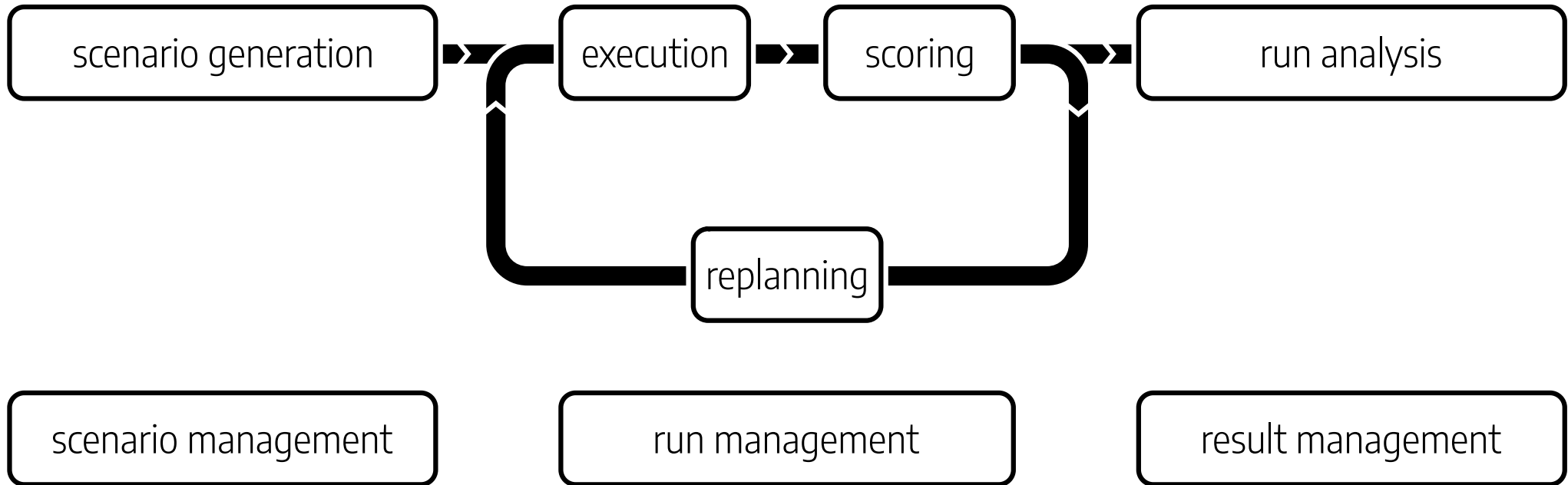scenario generation → execution → scoring → run analysis

replanning
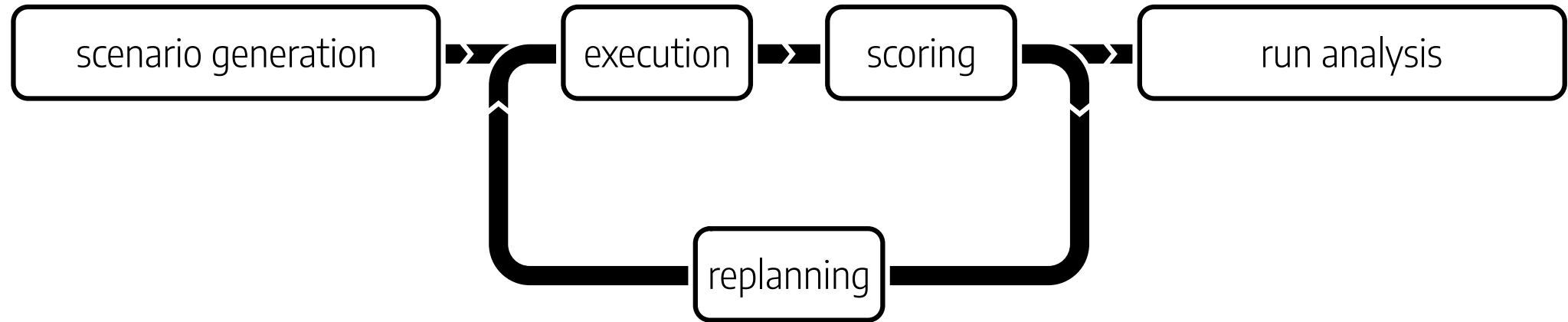
- data preparation
  (extract, transform, load)
- data management
- data validation

- run monitoring
- config management
- calibration

- analyze output
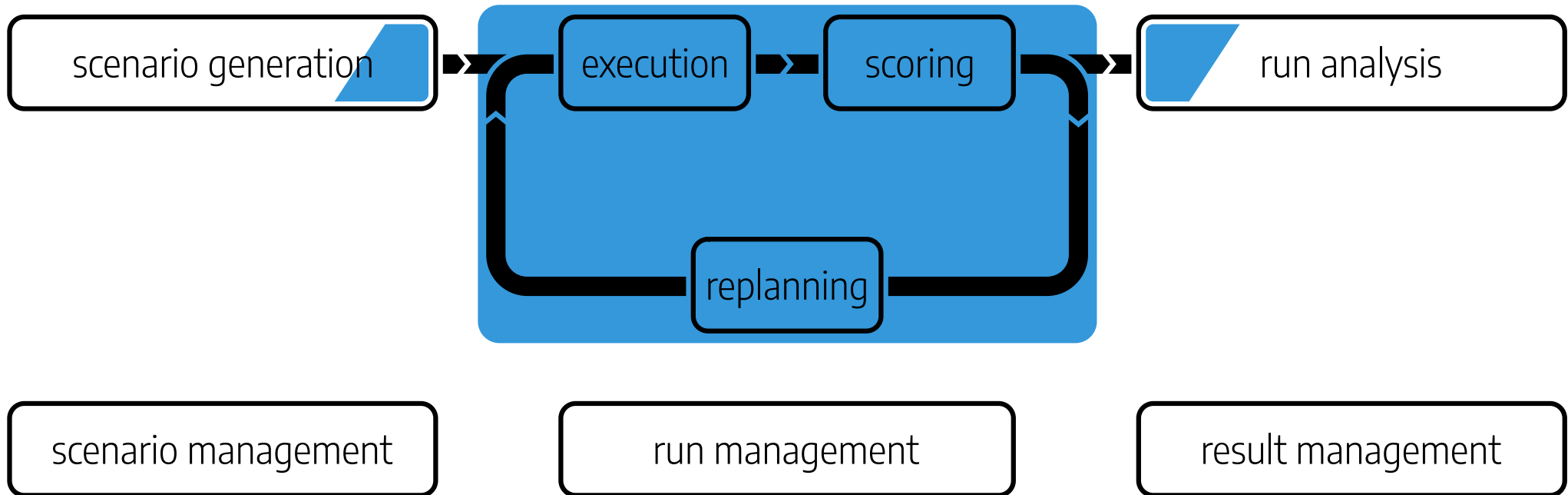- visualize output
- report results
- share results

MATSim Workflow

scenario generation → execution → scoring → run analysis

replanning

scenario management

run management

result management

MATSim Workflow: MATSim Parts

scenario generation → execution → scoring → run analysis

replanning

scenario management · run management · result management

MATSim Workflow: MATSim Parts

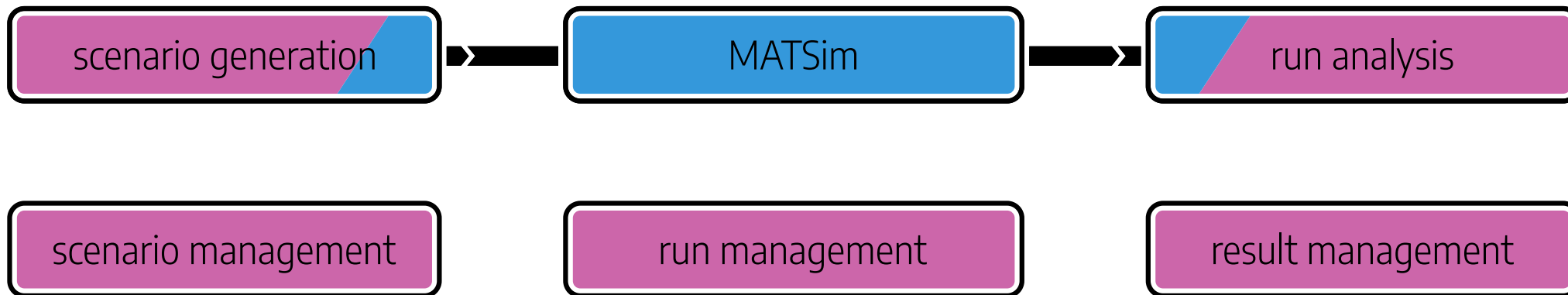| scenario generation	→	MATSim	→	run analysis
scenario management		run management		result management
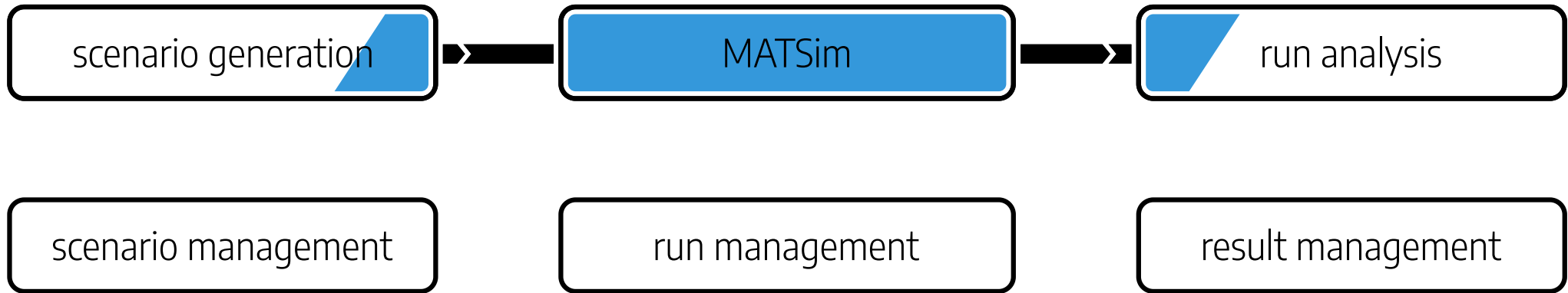
To effectively (and efficiently) work with MATSim, a lot of infrastructure around MATSim is needed.

Simunto's Vision

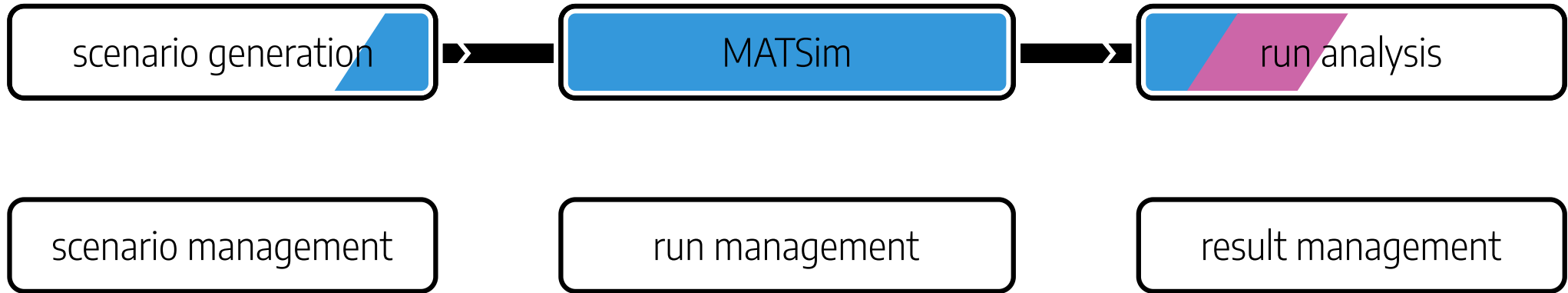| scenario generation	→	MATSim	→	run analysis
scenario management		run management		result management

Simunto's vision is to provide tools around MATSim to cover the full life-cycle of MATSim users.

Status Quo: MATSim + Via

scenario generation → MATSim → run analysis

scenario management · run management · result management

▲ Tramola

Tramola is a new application from Simunto
with the goal to simplify many aspects of working with MATSim.

▲ **Tramola** Features

Scenario generation

- Edit network and transit schedule
- Create network from OSM
- Convert GTFS data
- Validate scenario data

Running MATSim

- Edit config.xml
- Start Runs

Run monitoring

- Monitor running simulations
- create dashboards with live data

Run analysis

- compare multiple runs with each other
- create dashboards with run results
- create automated reports
- visualize runs

Result management

- Share visualizations with other people
- Share reports with other people

* Not all features will be available from start.

Tramola

Demo

Tramola: Current state

General

- Prototyping features to get a feel for the application (UX)
- Prototyping to test technical feasibility (e.g. visualization, distributed runners)
- Get the technical foundation right (database schema, prepare for scalability, ...)

Available Features

- Basic scenario management
  - Simple network editor
  - Config editor
  - Start runs
- Basic run and result management
  - Run monitoring
  - Basic report editor and report generation
  - Basic visualization
- Use custom MATSim versions (→ use contribs)
- File access with SSH/SFTP, WebDAV

Tramola: Timeline & Roadmap

all future dates are subject to change

01 / 2021 — Basic scenario management, Basic network editor, Run monitoring, Basic reporting, Basic visualization, File access (SFTP, WebDAV)

03 / 2021 — Enhanced reporting, Team functionality

05 / 2021 — Sharing of data, reports and visualizations Improved visualization

07 / 2021 — Run comparison

09 / 2021 — Improved scenario editor (network, transit schedule)

01 / 2022 — enhanced runners, scenario creation, ?

?? / 2022 — enhanced scenario editor (incl. population)

Tramola: Availability

Today

- available as beta-version to interested testers.
  Interested? Please contact me!

Summer 2021

- commercial on-premise version (Self hosting)

Still undecided

- use a version hosted by Simunto

Visit
simunto.com/tramola
for latest news

▲ Tramola

Managing MATSim Scenarios

Visit www.simunto.com/tramola for more news about Tramola.

Thank you!

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