OCP Engineering Workshop 25 September 2017| Dallas, TX

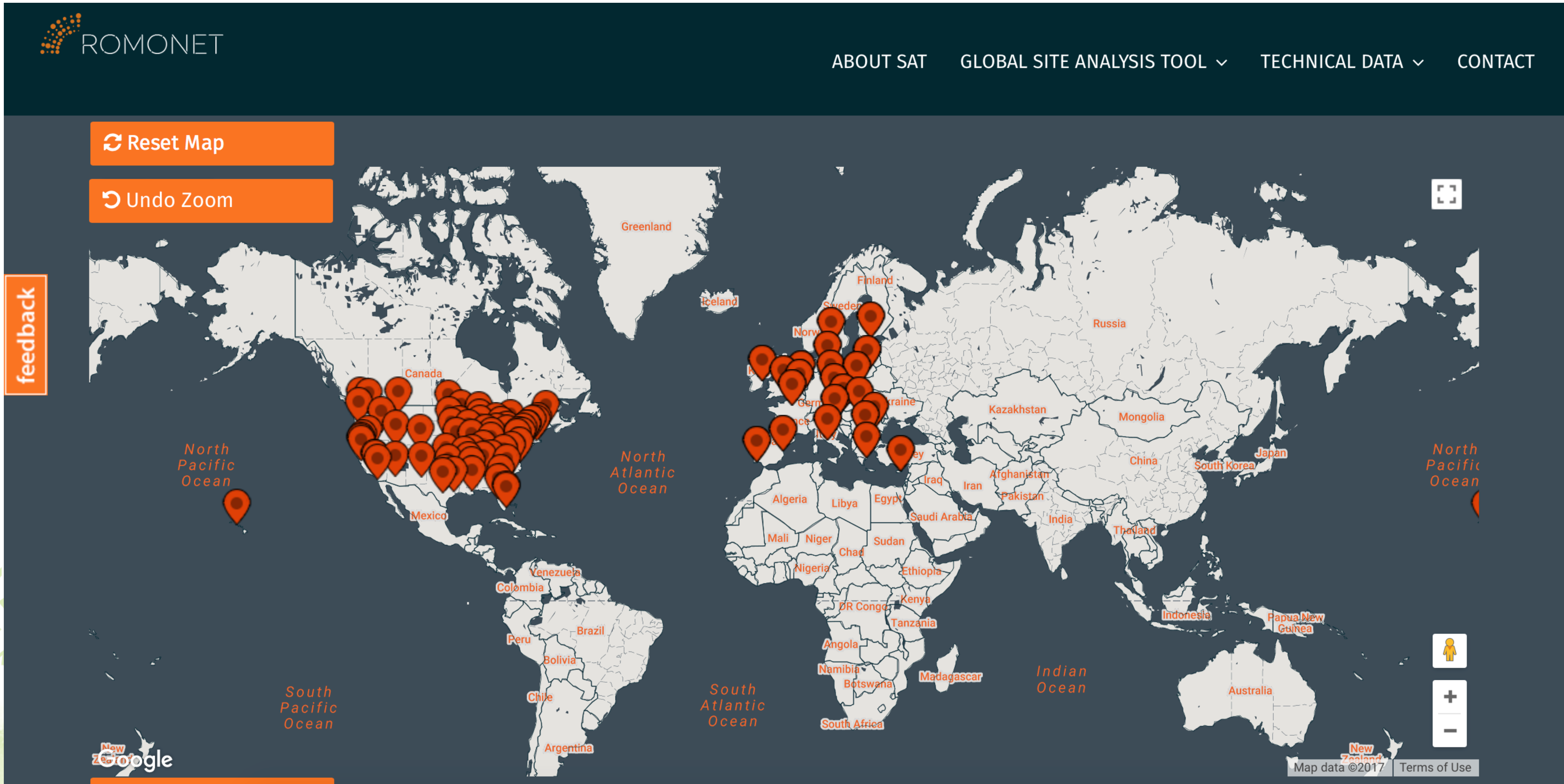# Site Analysis Tool
Romonet

Zahl Limbuwala
Founder

ROMONET

Romonet – Site Analysis Tool

Site Analysis Tool – Analysis Options

- **Data center** - view how an architype performs across all locations

- **Location** - view how all architypes perform in a specific location

- **Compare Locations** - compare performance in up to five locations

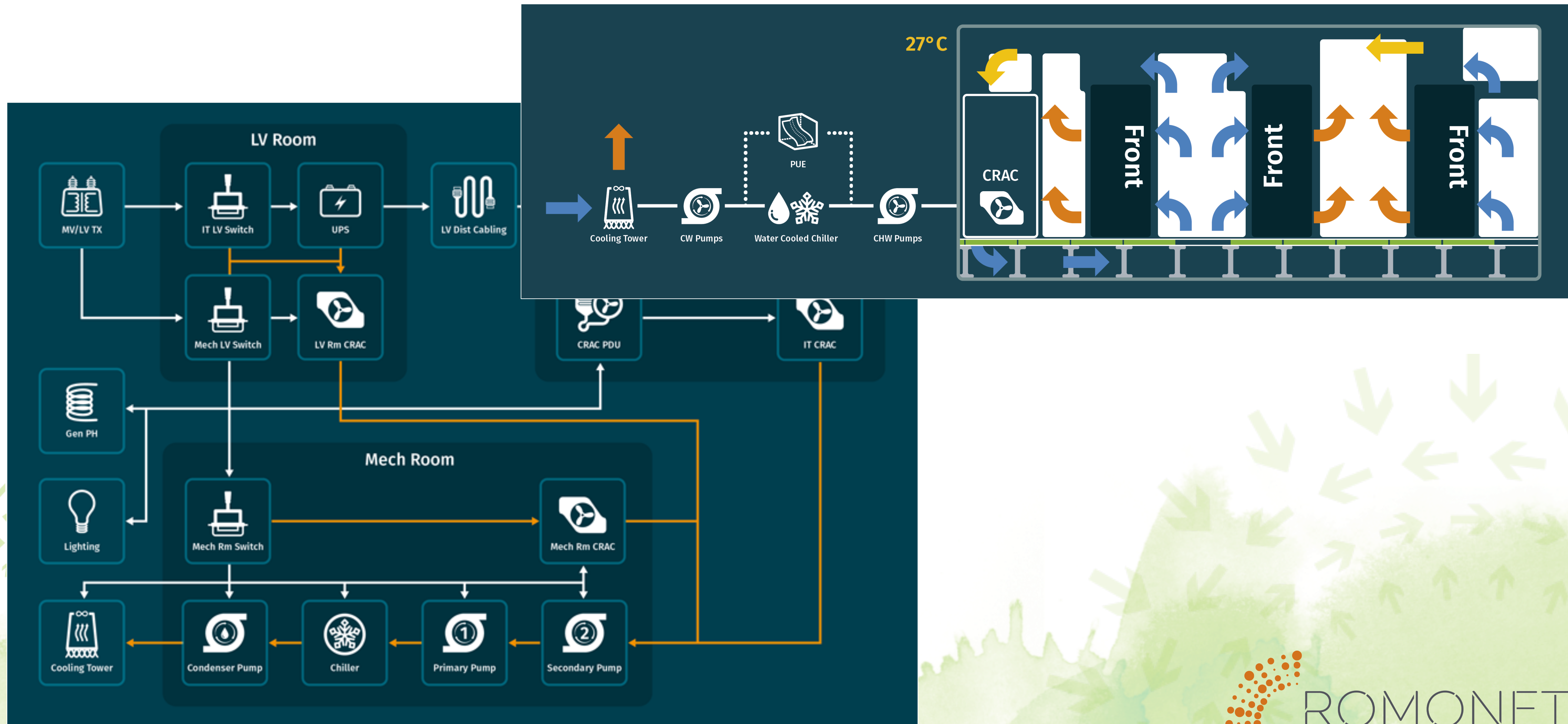*Use column sort to find trade-offs*

ROMONET

Site Analysis Tool – Analysis Output

- **PUE** – annual average PUE at % load

- **Annual Energy Cost** – based on % load

- **Total Annual Energy** – annual energy consumption GWh

- **CO_2e** – total annual CO_2e emissions

- **Utility Cost** – average grid energy per location $/kWh

- **PUE Surface Plot** – PUE under all load's/OAT's

ROMONET

Site Analysis Tool – Predictive Models

Site Analysis Tool – Predictive Model

- **1MW** – all models are sized to 1MW IT capacity

- **TMY Simulation** – fully TMY location data used for simulation

- **2N/N+1** – electrical / mechanical resilience (Tier 3)

- **ASHRAE R** – target supply temperature

- **Single Hall** – non or partially contained hot/cold aisle

Over <u>1964 years</u> of hourly simulation data!

ROMONET

Site Analysis Tool – Additions

- **OCP** – an OCP 'style' model based on OCP data center 'spec'

- **H_2O** – annual water consumption as an output

- **New Locations** – Asia / South America / Canada

- **CO_2e** – total Annual CO_2e emissions

- **Utility Cost** – average grid energy per location $/kWh
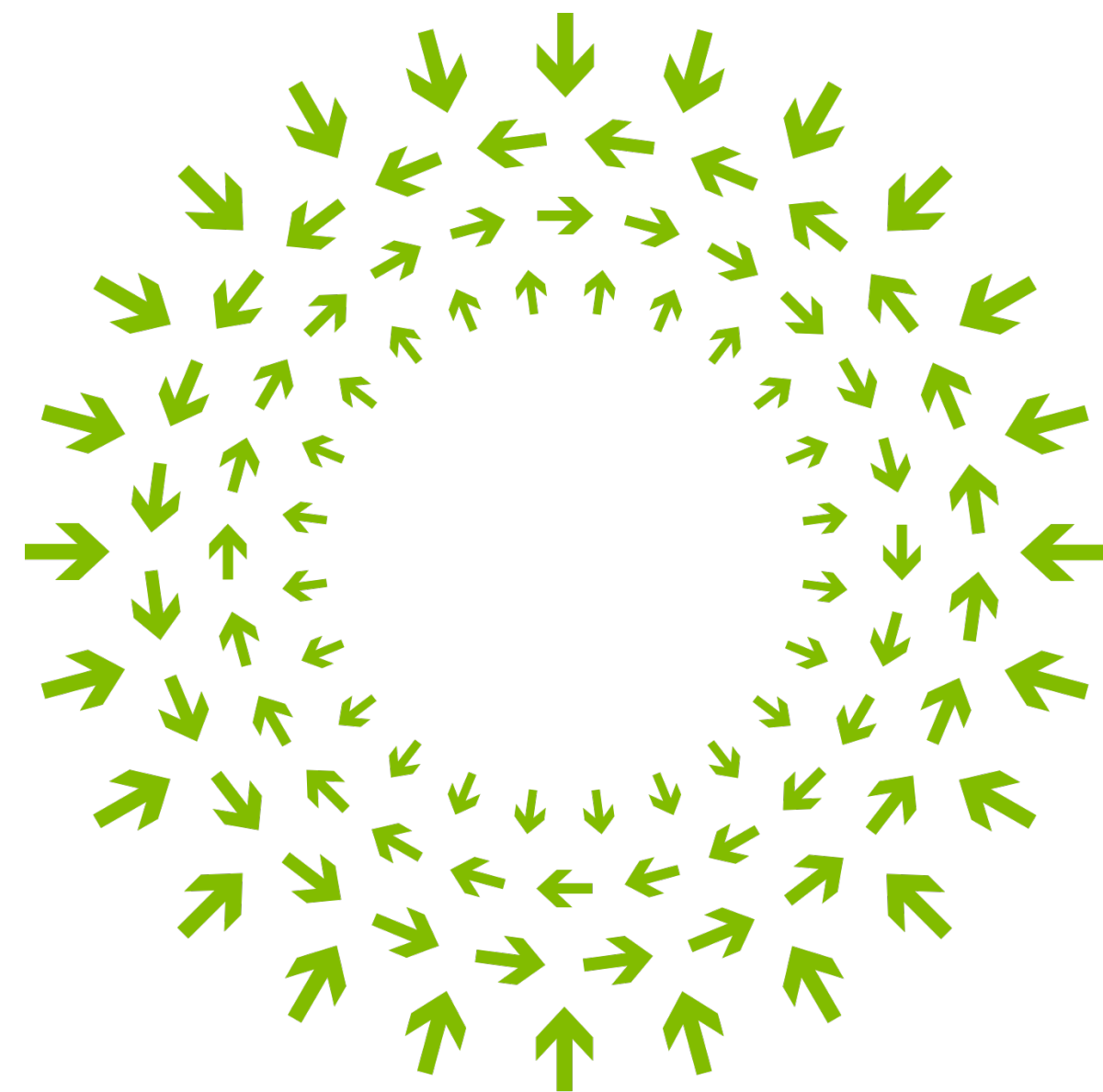
ROMONET

Free for anyone to use!

SITE ANALYSIS TOOL

BY

ROMONET

OPEN
Compute Project