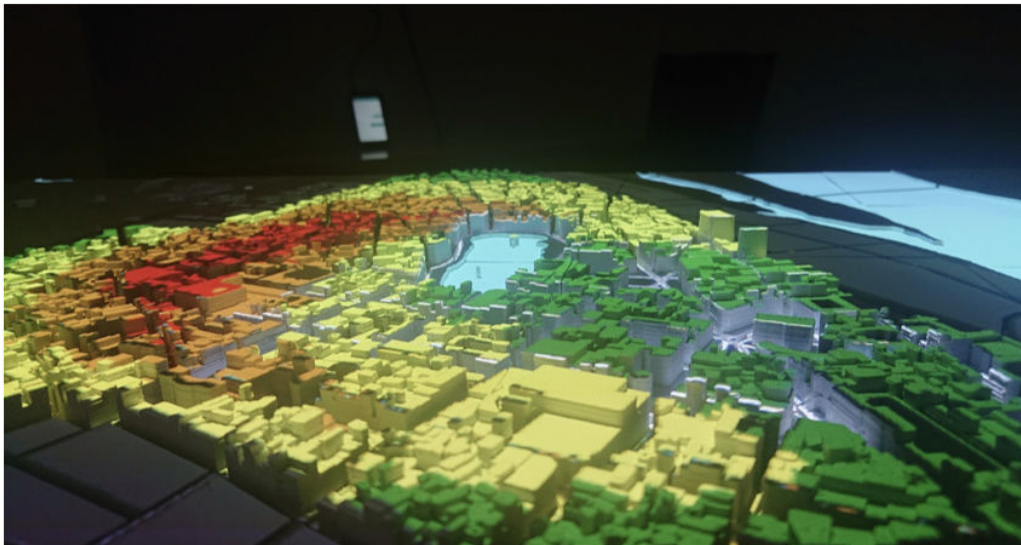


# GAMA training in Paris



Formation à la modélisation à base d'agents  
24-28 Avril 2023  
Learning Planet Institute - Paris

**Dates:** April 23-29 2023

## **General description of GAMA training:**

A training program in GAMA (agent-based modeling) is designed to provide a comprehensive introduction to the fundamental concepts, techniques, and tools of agent-based modeling. The program aims to equip participants with the necessary skills to develop and analyze complex simulations that incorporate various agents, environments, and interactions.

The training program contains an overview of the basic principles of agent-based modeling, including the definition of agents, their behavior, and interactions with other agents and the environment. We will introduce the GAMA platform, example models, and its programming language.

The training is project based with hands-on exercises that involve developing agent-based models using GAMA, gradually progressing to more complex simulations that incorporate multiple agents and dynamic environments. These exercises cover a range of topics, such as social dynamics, transportation networks, urban planning and applied to sustainability issues (urban, sociological, ecological). You will also learn to deal with data analysis and data visualization coupling it with agent-based simulations, using additional tools such as GIS.

### Useful resources before & after the training session:

Gama website : <https://gama-platform.org>

Tutorials:

- <https://gama-platform.org/wiki/Tutorials>
- [Video resources](#) about Gama made by Srirama
- [Short video tutorials](#)

Work done with Gama:

- HoanKiemAir : <https://youtu.be/U2w0GtLHACU>
- CityScope Champs Elysées: <https://youtu.be/aRjzyOHHgyY>
- CityScope Lyon: <https://youtu.be/V5sqsNWRgEI>
- Companion modeling ft. Gama : <https://youtu.be/2R09ozfQDs0>

Timeline

Days	What	Format
1st day / morning	<p>Welcoming 9.30am</p> <p>Welcoming speech: François Taddei 10 am</p> <p>Open lecture about ABM and GAMA and Urban Studies</p> <p>Installation de GAMA 1.9</p>	Course
1st day / afternoon	Getting familiar with the Gama platform with a concrete example based on a real breaking ice game (see external material section)	Tutorial
2nd day morning /	Hands-on: building a core traffic model inspired by this tutorial <a href="https://gama-platform.org/wiki/RoadTrafficModel">https://gama-platform.org/wiki/RoadTrafficModel</a>	Tutorial
2nd day afternoon until day 5 morning.	<p>Group work:</p> <ul style="list-style-type: none"> <li>- Growing core model on a specific issue with a rehearsal for the final presentation every day</li> <li>- Q&amp;A from the students</li> <li>- Presentation from the trainers on specific issue</li> <li>- A presentation every day from each group as a rehearsal for the final presentation</li> </ul>	Group work