

## OPERATIONS SCHEDULING AND OPTIMIZATION

### The power of Discrete Events Simulation

These are typical questions expressing an underlying need to model operations using simulation :

- σ How to determine the **effective or maximal throughput**, to establish the **best schedule** or to evaluate if there are **enough resources**?
- σ Will it be possible to **deliver on time**, is it possible to **reduce costs**, what is the most desirable **expansion scenario**?

Discrete events simulation allows to understand and model operations for which **time, variability, movement** and **resource availability** are critical elements. Discovering underlying interactions and key drivers provides intelligence on the whole process.

Powerful  
methods



Adapted  
approach



We are  
practical  
experts!

Combining hard  
work with fun



## HOW WE CAN HELP YOU

Follow us at: [linkedin.com/company/difference-gcs](https://www.linkedin.com/company/difference-gcs)

### A globally recognized expertise

Our modeling approach is practical. We make decision-making tools accessible and democratic, easing the configuration of scenarios and the interpretation of results.



#### Don't sweat your best ideas, test them!

Our consultants have extensive experience in developing complex models for many applications. In addition to having developed unique specialized libraries for bulk materials simulation, traffic and maintainability, they have published scientific peer-reviewed articles and participated in international conferences.

### Virtual and safe testing of new ideas

- σ Model a real system in a native 3D virtual environment: the perfect sandbox!
- σ Account for real-world variability with statistical distributions and dynamically-made decisions!
- σ Test "what if" scenarios and select the best option before having to change the real process

### Project examples

- σ Tissue paper converting and packaging lines
- σ Surface and underground mining operations
- σ Ore concentrators and processing plants
- σ Electrolysis complex and casthouse operations
- σ Mine-to-ocean supply chains and logistics
- σ Rail and road transportation/haulage
- σ Mobile equipment maintenance shops
- σ Airport baggage handling systems
- σ Distribution centers and warehouses
- σ Food, beverage and packaging facilities
- σ Containers and bulk material port terminals