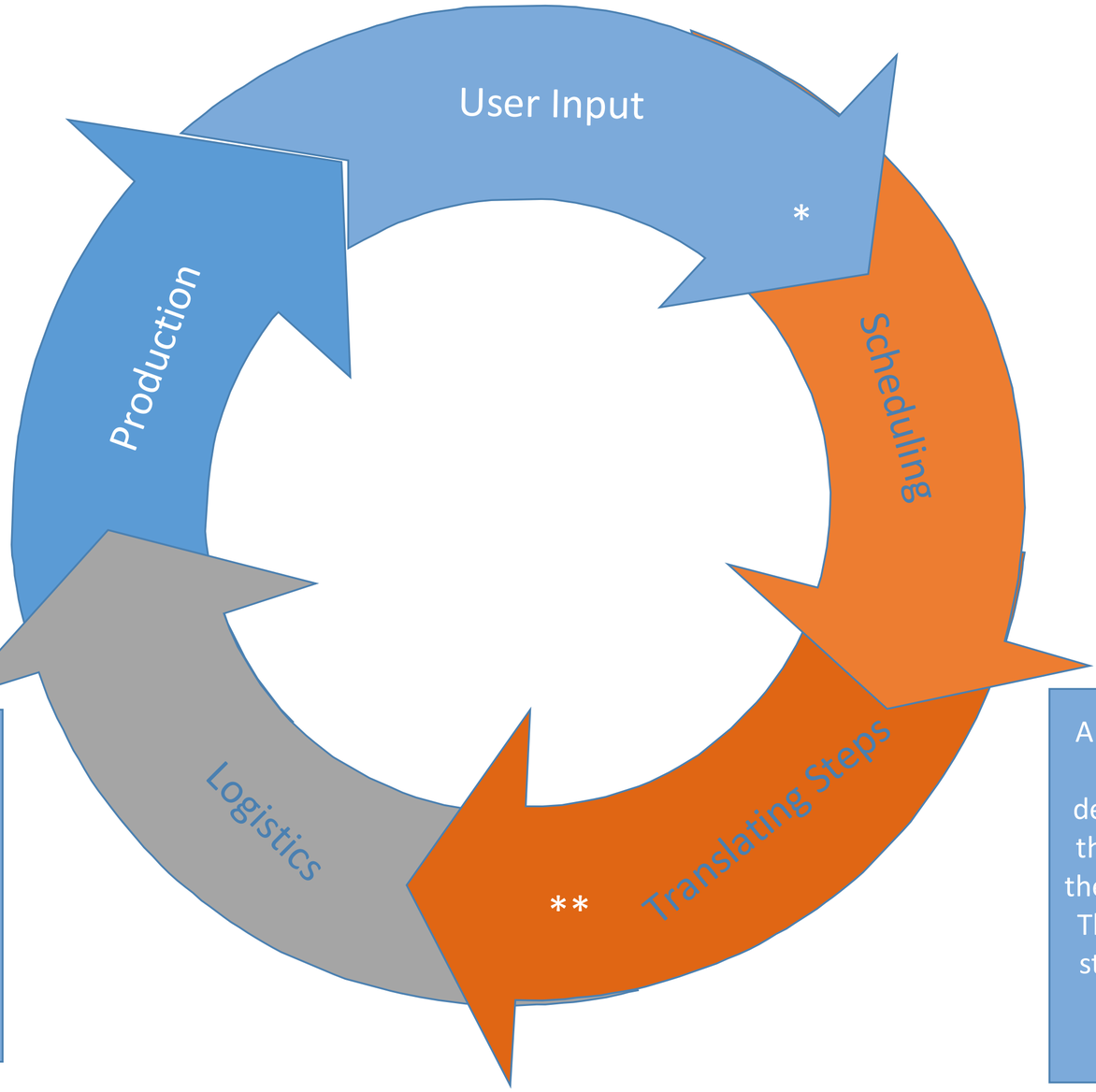
Blueprints are required to produce a product in REXOS. These blueprints need to be created and the most desirable way to do so is using a GUI. This GUI makes it possible to make products depending on the available machines. Once the design is finished, a product agent will be spawned with this blueprint. This product agent will be responsible that the product will be produced according to the blueprint.

After the product and required parts are available at the right equiplet, the equiplet steps will be executed by the equiplets. The responsible product agent will receive feedback from the equiplet containing information about the executed product step.



Once all the feasable equiplets have been found, the product agent will start the scheduling process. During this process it will gather the schedules of feasible equiplets. Once the product agent has this information, it can calculate a schedule which best fits. The required equiplets will be notified and the equiplets will update their schedules.

Whenever the product is ready to be produced, parts that are needed for production will be transported to the equiplets. The product agent is responsible for transporting the parts to the proper equiplet. Parts will be transported on a single robot, capable of carrying all parts needed for one complete product. This robot will navigate through the grid autonomously.

A blueprint consists of a collection of product steps. These products steps are abstract descriptions of manufacturing steps. Equplets that have the required modules can translate these steps into service steps with more detail. The service steps are translated into equiplet steps. Equiplet steps are specific Instructions which can be executed by the hardware configured on the equiplet.