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## BACKGROUND

Dispension Industries Inc. is a start-up company founded in 2017 in Dartmouth, NS with the aim to provide an innovative and disruptive solution to how restricted products, such as prescription medicine and overdose kits are accessed and distributed in both urban and rural areas. Dispension produces customizable self-service kiosks equipped with advanced biometrics to allow customers to autonomously access restricted products safely to help reduce stigma and overdoses.

## CURRENT STATE

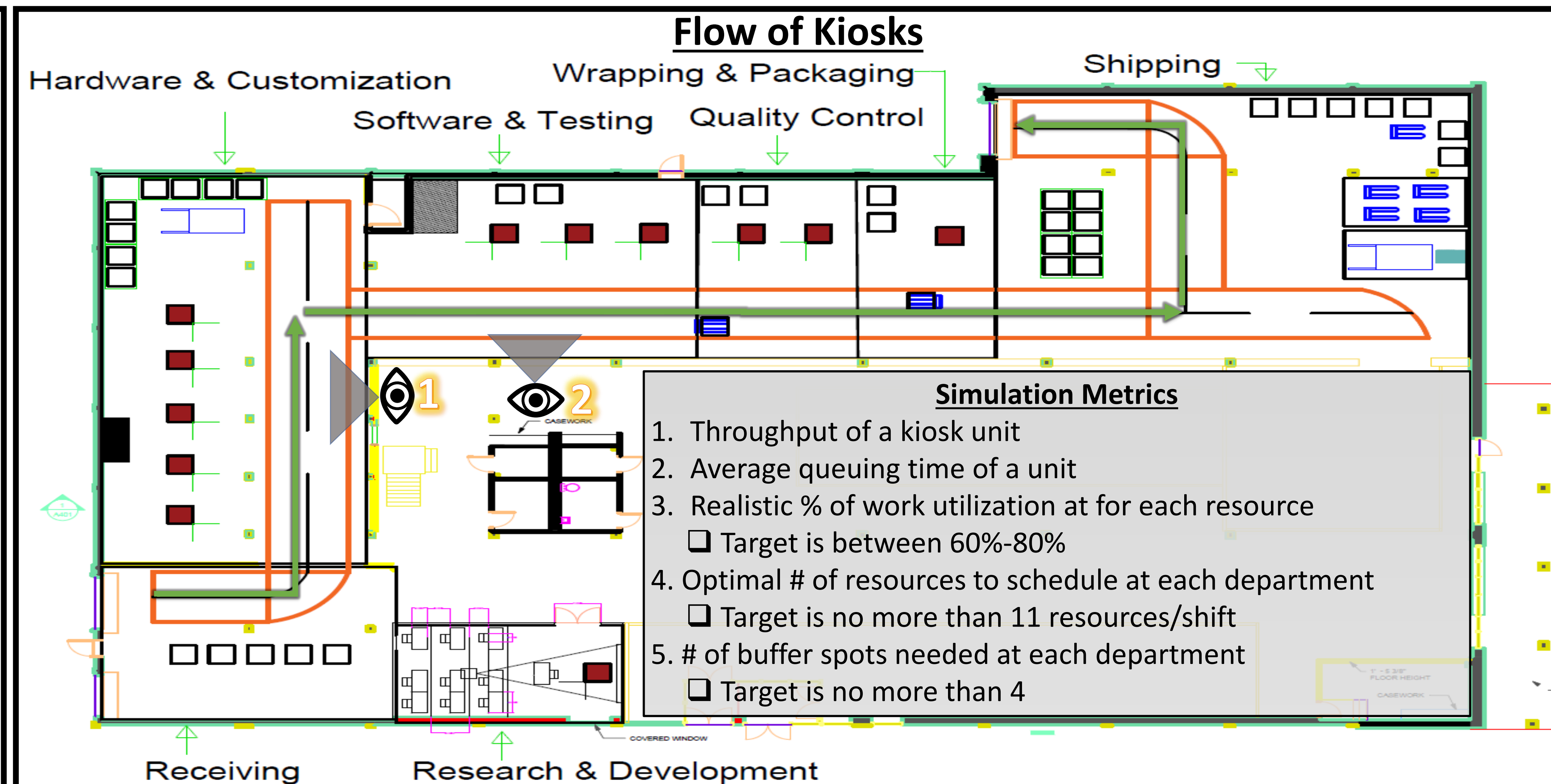
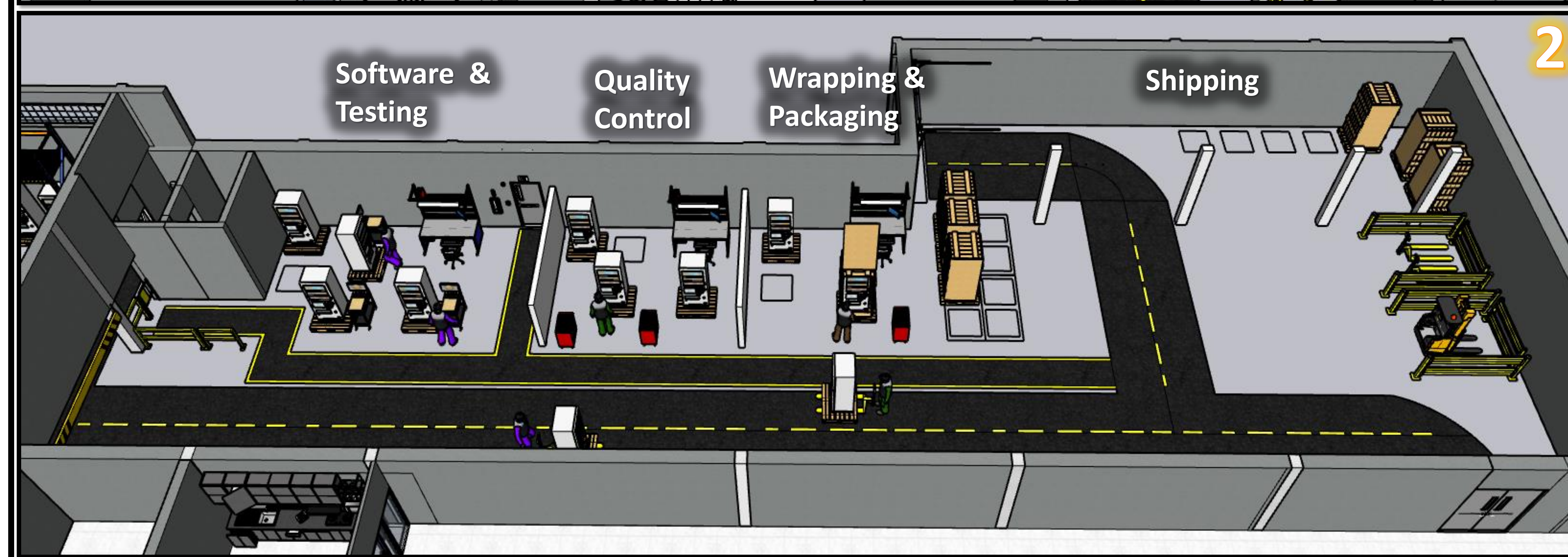
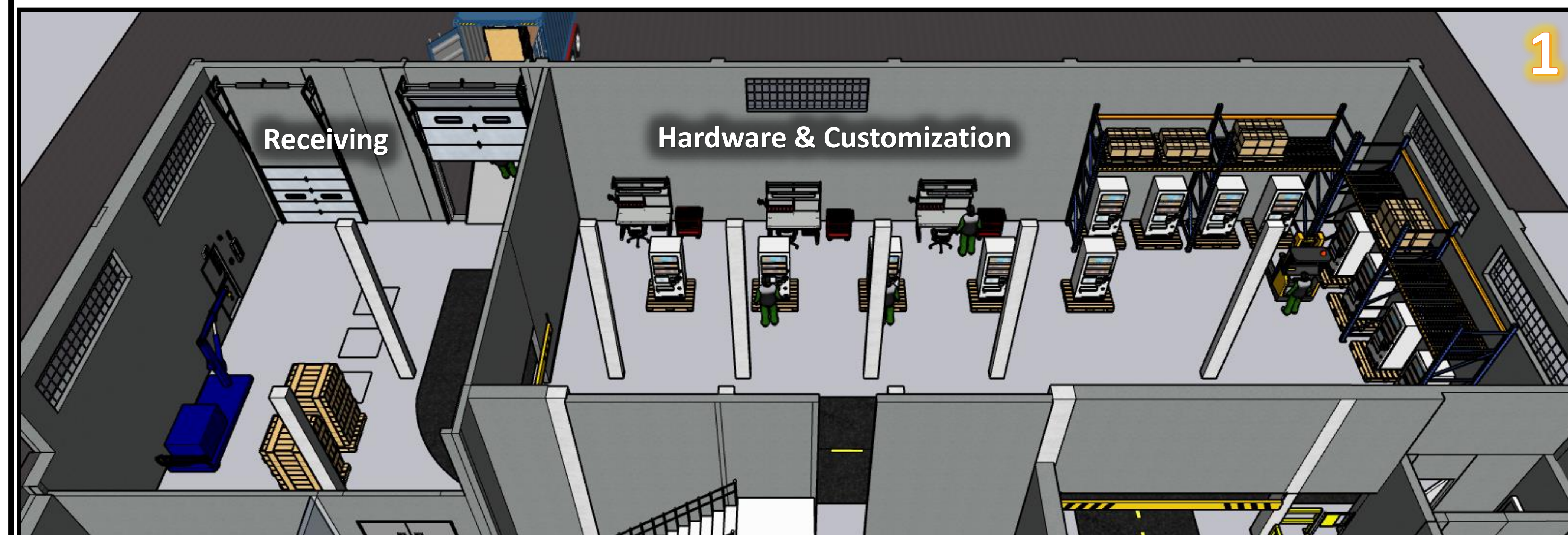
- Dispension is operating in an empty facility
- Dispension is only engaged in the prototyping and testing of kiosks
- Dispension is only prototyping and testing 10 kiosks per month
- Dispension is lacking the resources, tools and equipment to expand their kiosk development process at the facility

## PROJECT GOAL

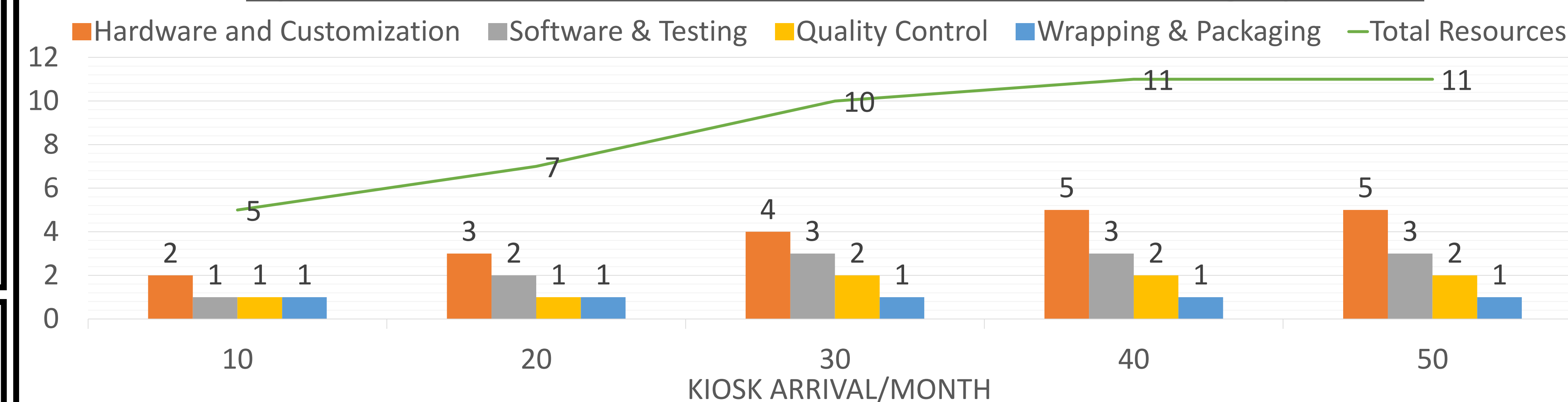
- Create a Prototyping and Refurbishment facility layout
- Recommended a list of tools and equipment required for refurbishment process
- Consider Operational Health and Safety (OHS) factors in the floor plan
- Determine the number of workers required through a simulation model

## Solution

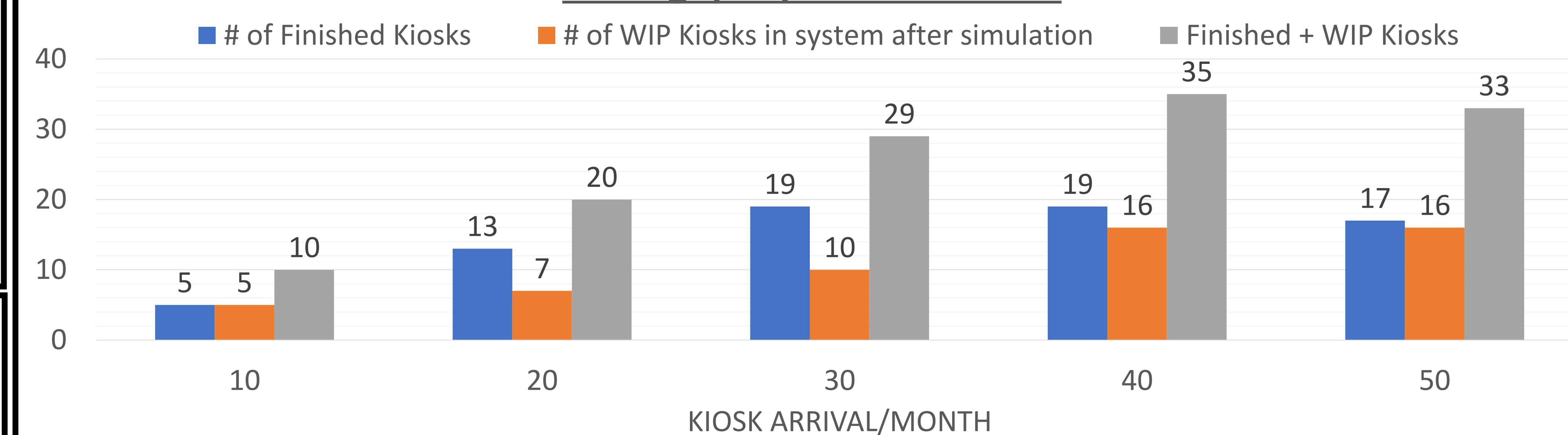
### Facility Layout



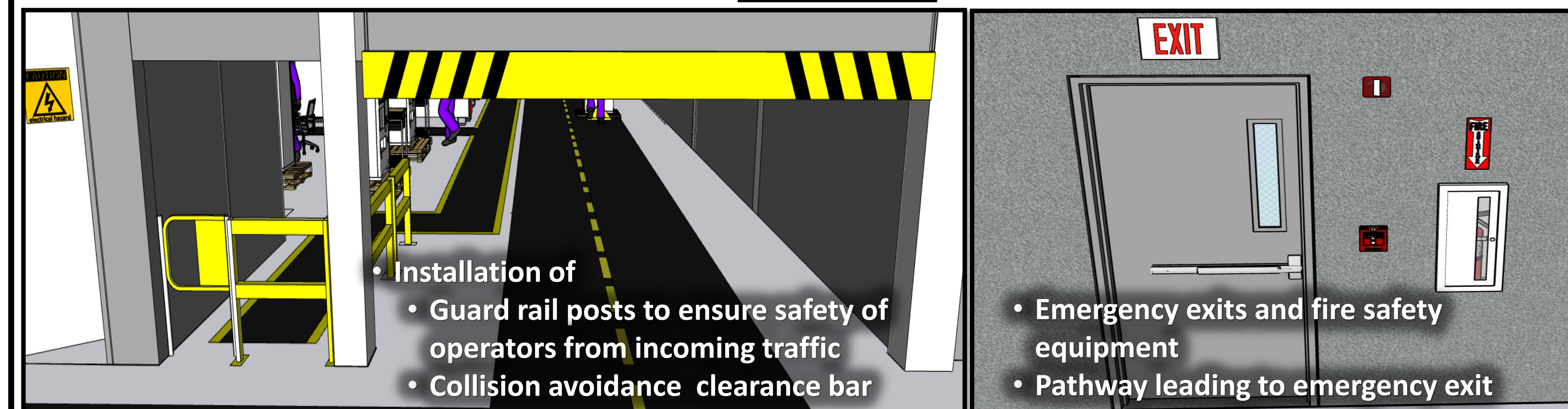
### Optimal Resource Combinations / Growth Phase - Using OptQuest



### Throughput / Growth Phase



### OHS Factor



### List of Tools

- 8 pieces of material handling equipment were selected based on the volume of machine arrival
- A list of 24 tools were selected for individual operators based on their tasks.