

Expertise and insight

for the future



# BICYCLE TRAILER

A solution for flexible bicycle transportation



# What, why and where?

- We continued where the previous bicycle trailer innovation group finished
- As city environments turn less accessible for private driving, we need new solutions for handling the transportation of our everyday items – replacing the boot or backseats of a car
- Existing trailer solutions are somewhat “big-boned” and clumsy, designed mainly to transport kids, camping supplies etc.
- We designed the product with Marja-Vantaa, a biking friendly region, in mind



## Our target

- Our target was to design a light-weight, agile and easy-to-use bicycle trailer for everyday use in a busy city environment
- To build a working prototype of this trailer



# Challenges

- Arriving to a final product that meets the specified requirements set for it, while being universal enough for a large group of different users
- Creating a product that matches the reliability and value of similar existing solutions, while being unique enough to find its own place



# Process

- Two initial paths

## PERSONAL TRAILER



Solution for light and agile everyday transportation, e.g. groceries, commuting or recreation

Existing (commercial) solutions are slightly clumsy and "big-boned"

For personal use

## COMMUNITY TRAILER



A more versatile and simple solution for different transportation needs

For communities, enterprises and housing companies. Shared or rented



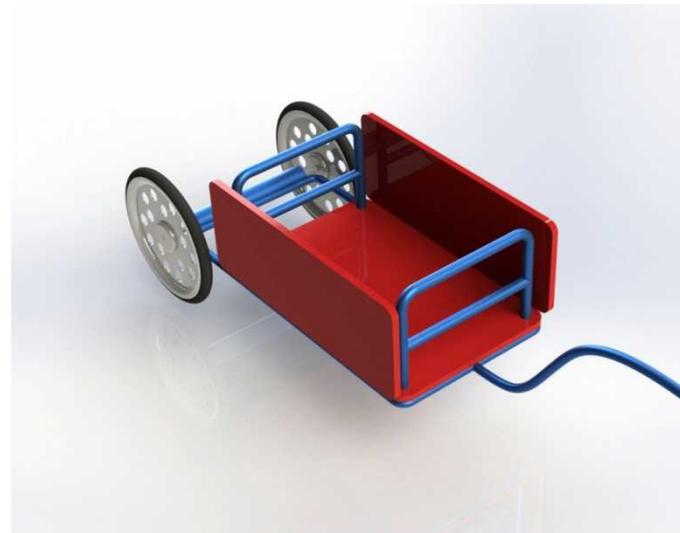
# Process

- Two design concepts

PERSONAL TRAILER



COMMUNITY TRAILER



# Process

- Two goals

PERSONAL TRAILER



Prototype

COMMUNITY TRAILER



Service concept



# Personal trailer

Simple and compact

Light and easy to trail behind a bike

Easy attach and remove

Bag or other items are fastened to a simple frame

## BAG

A unique bag from weather resistant and durable materials will be designed to be used with this trailer.



# Prototyping

## First version

- Wooden structure
- Attached to the bike's saddle pipe
- 2 moving joints next to fastening point on saddle pipe



# Prototyping

## First version+

- Enhanced strength
- Less wobbling and bending



# Prototyping

## Second version



- New location for joint/axis
- When making a turn, the trailer's pivot point limits over-rotation of the trailer
- Weightlessly glides



# Prototyping

## Second version+



- Very good structural integrity, comparable to a structure made of steel or aluminium



# Prototyping

## Pivoting functionality



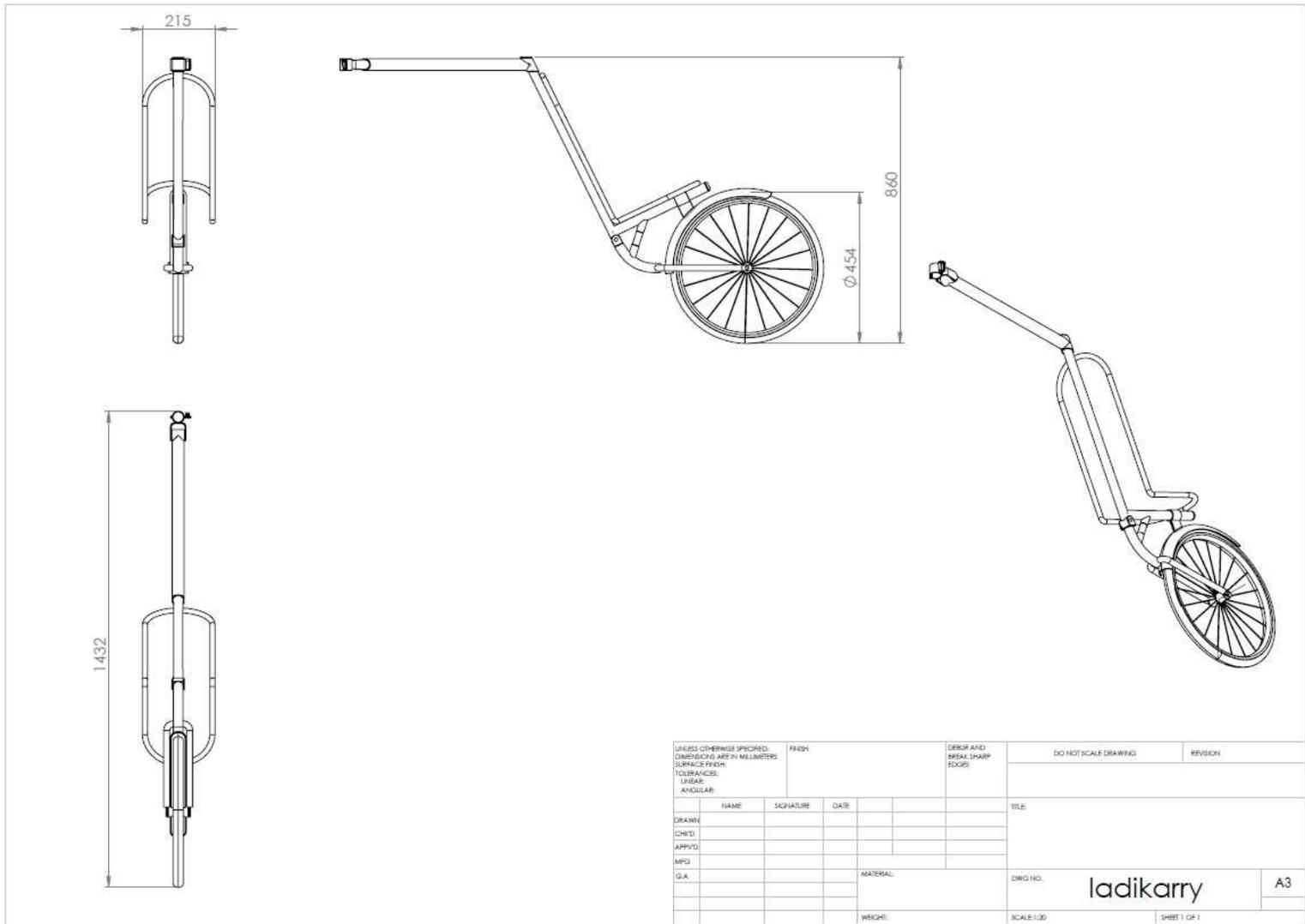


# Final product



# Final product





# Add-ons



