A SOLUTION FOR BOOMING CITIES

LEVERAGING AUTODESK SOFTWARE AND EXPERTISE TO DESIGN INNOVATIVE NEW PROCESSES THAT SOLVE BIG URBAN CHALLENGES

Melody Mitugo – Process Engineer
melody.mitugo@saner.gy

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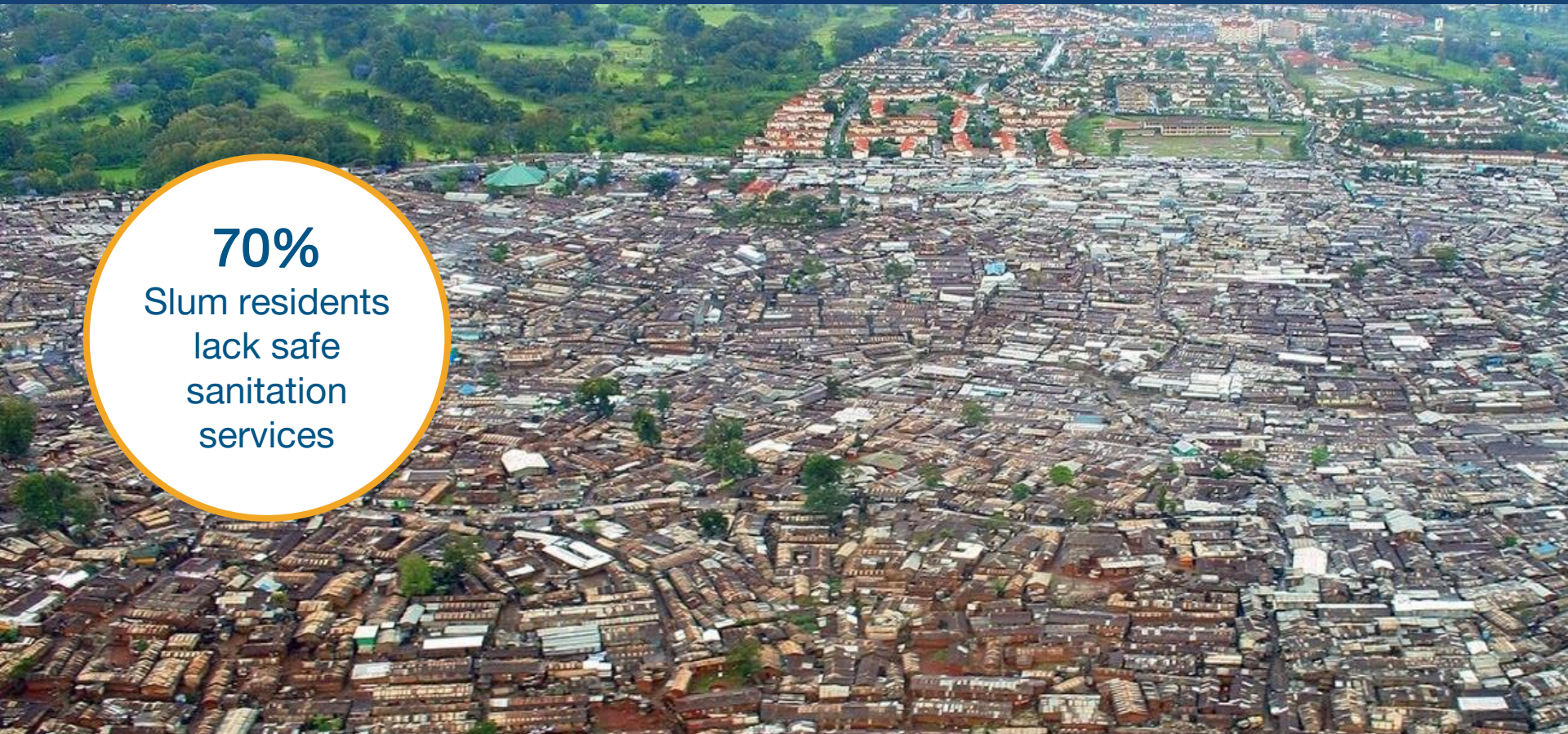

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What do these topics have in common?

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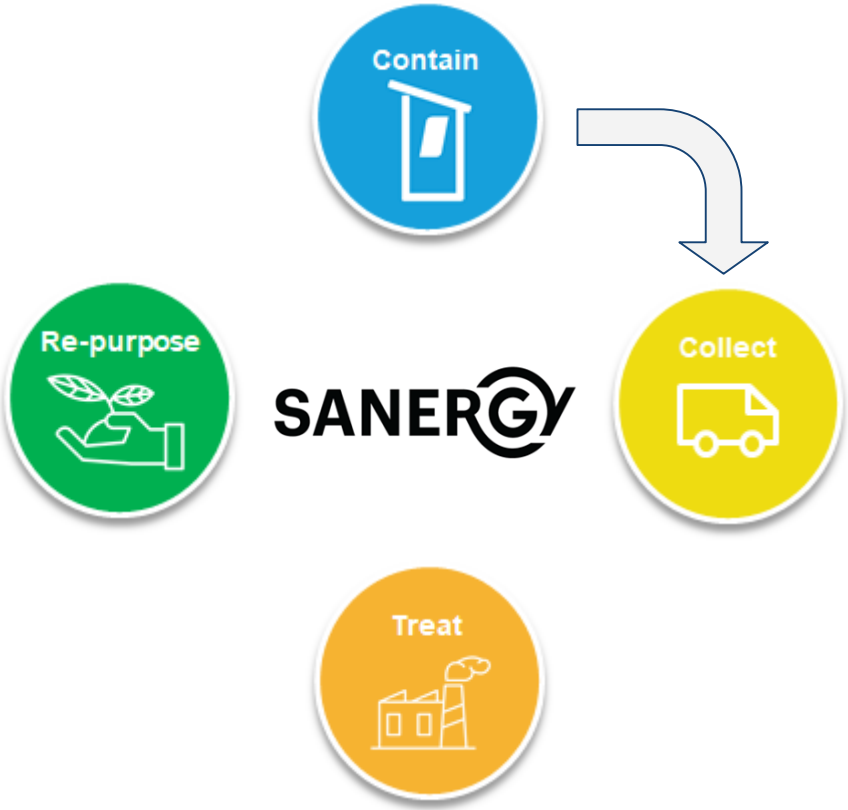

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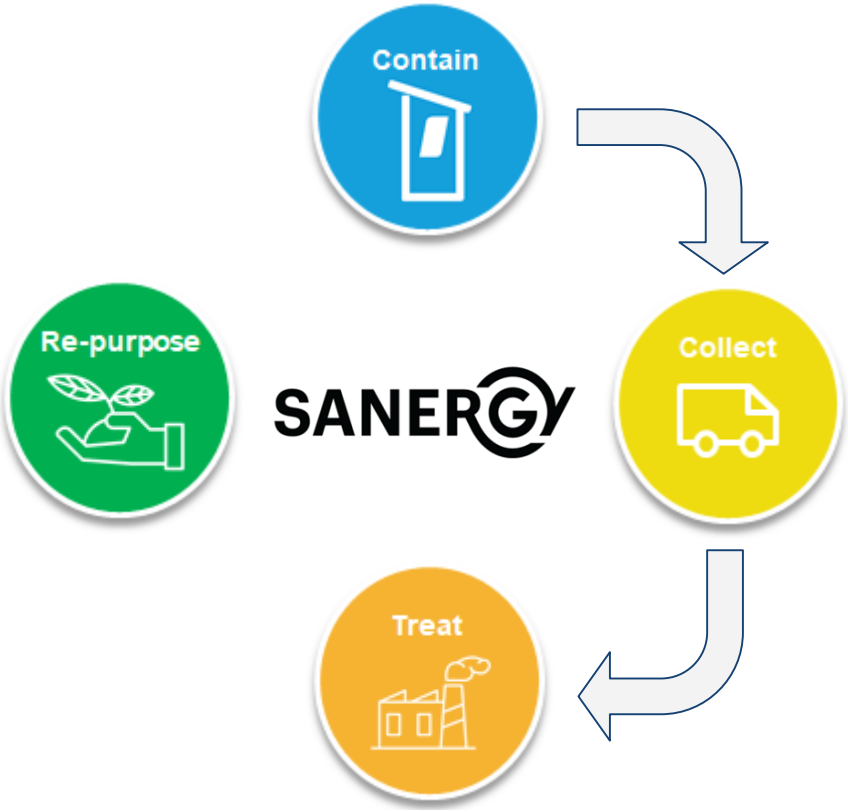

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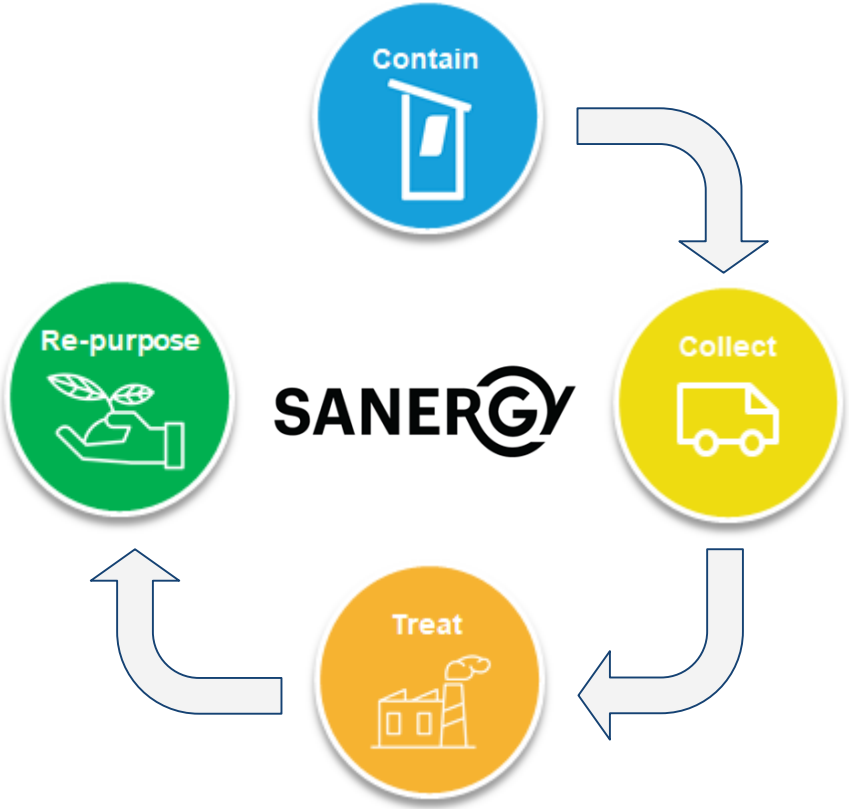

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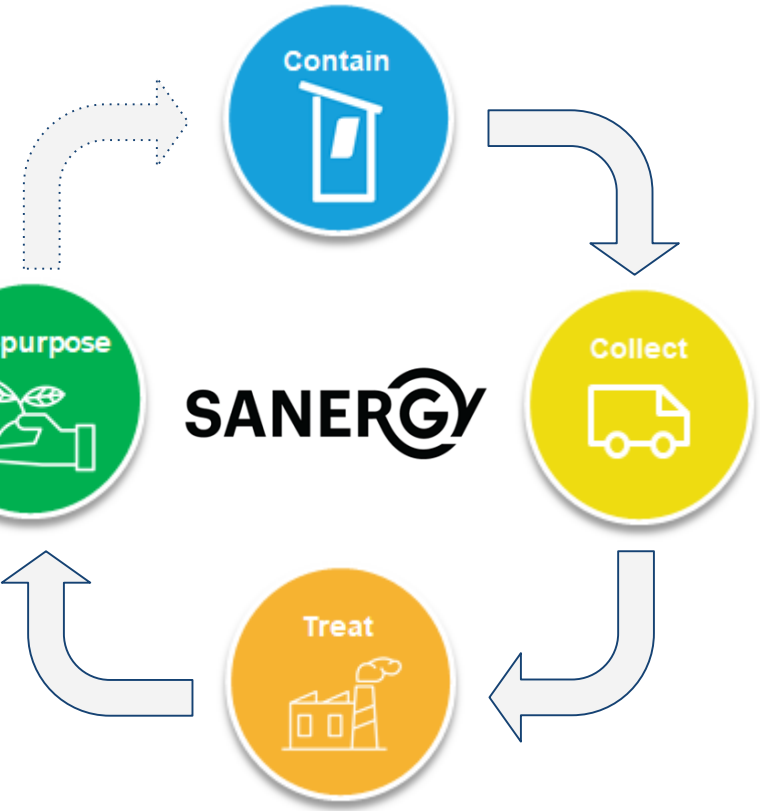
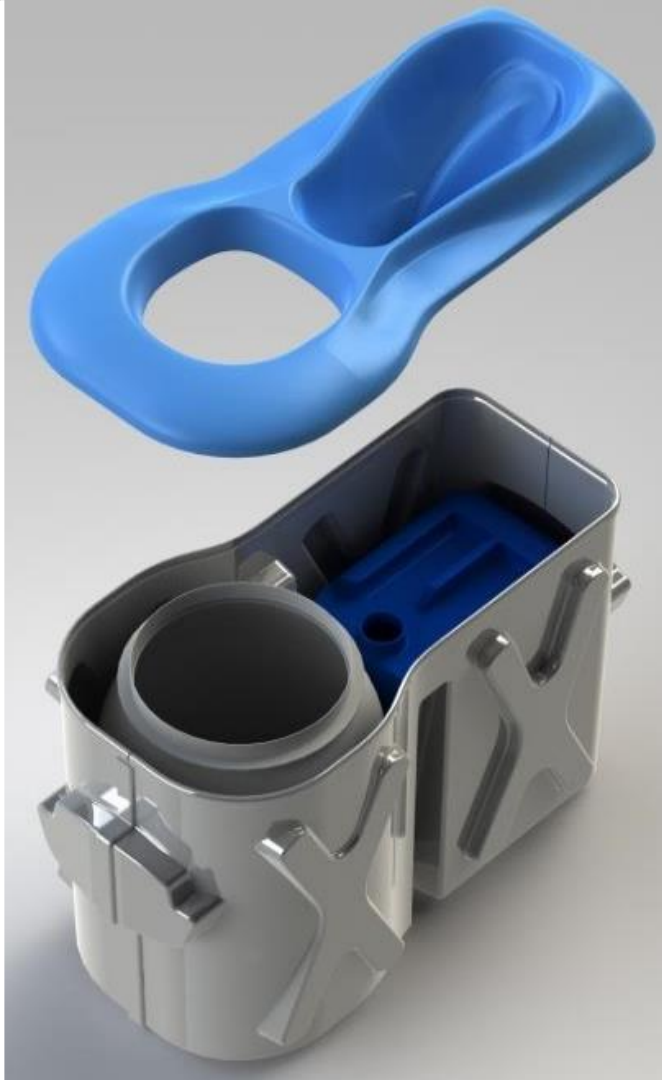


We offer non-sewered eco-friendly sanitation solutions to safely contain the waste.



Residents invest in our sanitation solutions via a subscription model.

100% of the waste is professionally collected through our logistics services.

We also collect organic waste from municipal and agricultural sources across Nairobi.

We transport all of the waste to a central processing plant.

We treat and upcycle 100% of the waste into agricultural inputs.


KR
7.1
Fresh Life
Fresh Life
Fresh Life
Watu Wazim
4/=
Walato
2/=

3,000

Toilets open 24/7

3,000
Toilets open 24/7

120,000
People served

3,000
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120,000
People served

12,000 tons
Of waste treated annually

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Black Soldier Flies technology to process sanitation and organic waste.

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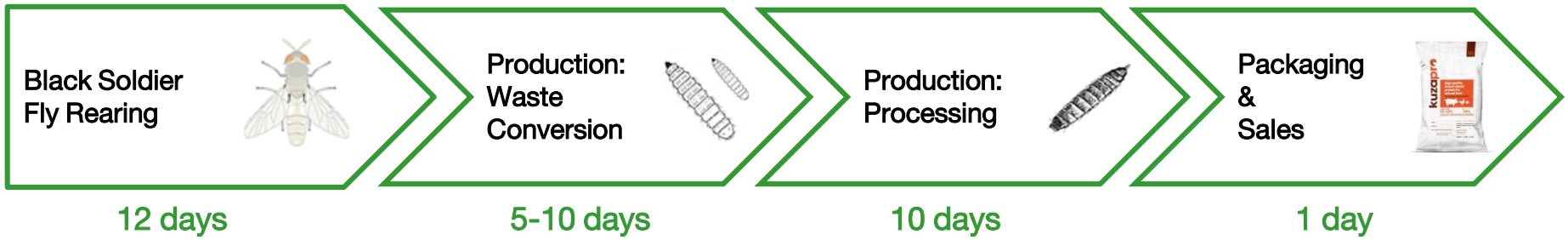
Why Black Soldier Flies?

https://youtu.be/jWEM6ohctwU

Black Soldier Fly Larvae efficiently **reduce organic waste matter** and are harvested into safe protein for animal feed.



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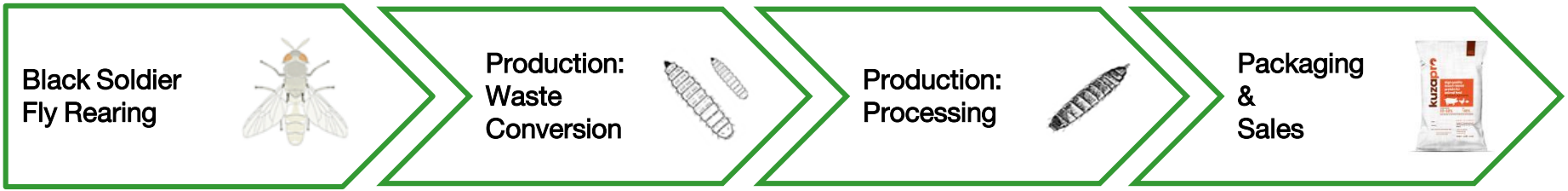

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Black Soldier Fly Rearing

12 days

Production: Waste Conversion

5-10 days

Production: Processing

10 days

Packaging & Sales

1 day

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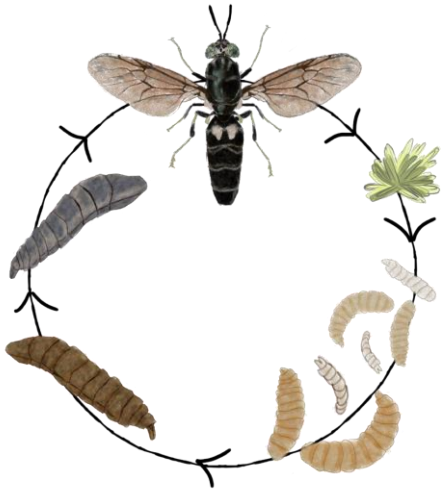

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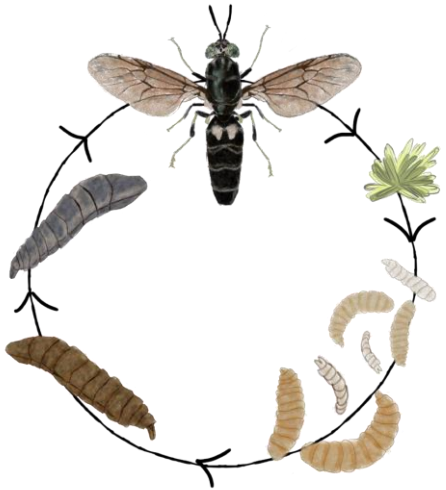

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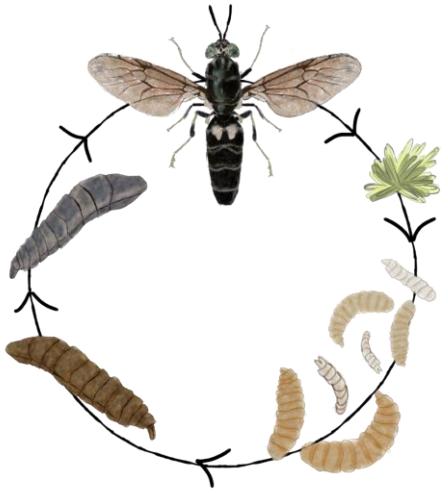

Sanergy's **R&D and scaling processes** supported by the

AUTODESK. FOUNDATION

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AUTOCAD®

FUSION 360

INVENTOR

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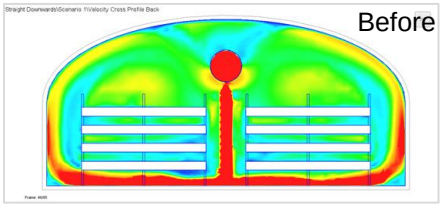
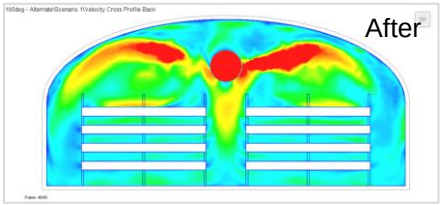
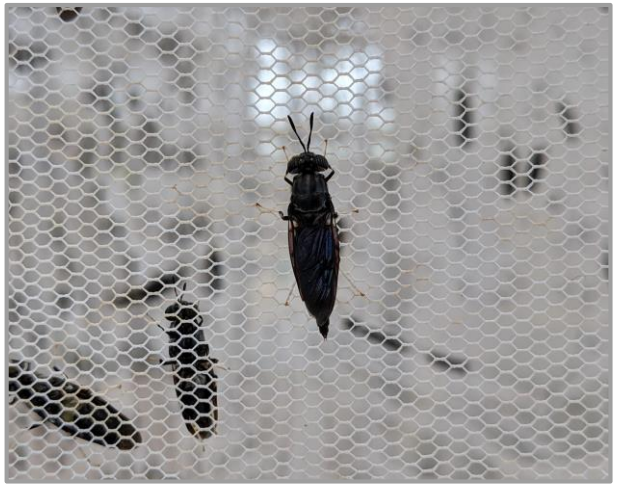




Team-Based Pro Bono Consulting

Case study: Optimization of the rearing of adult Black Soldier Flies



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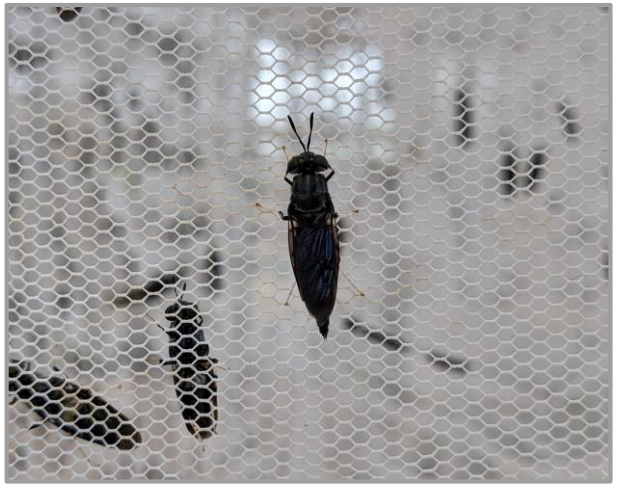

What are the best processes and equipment to optimize egg yields at scale?

First cage - Off-the-shelf, dome shape cage

PROS

- Readily available
- Modular
- Sturdy
- Doesn’t require a frame

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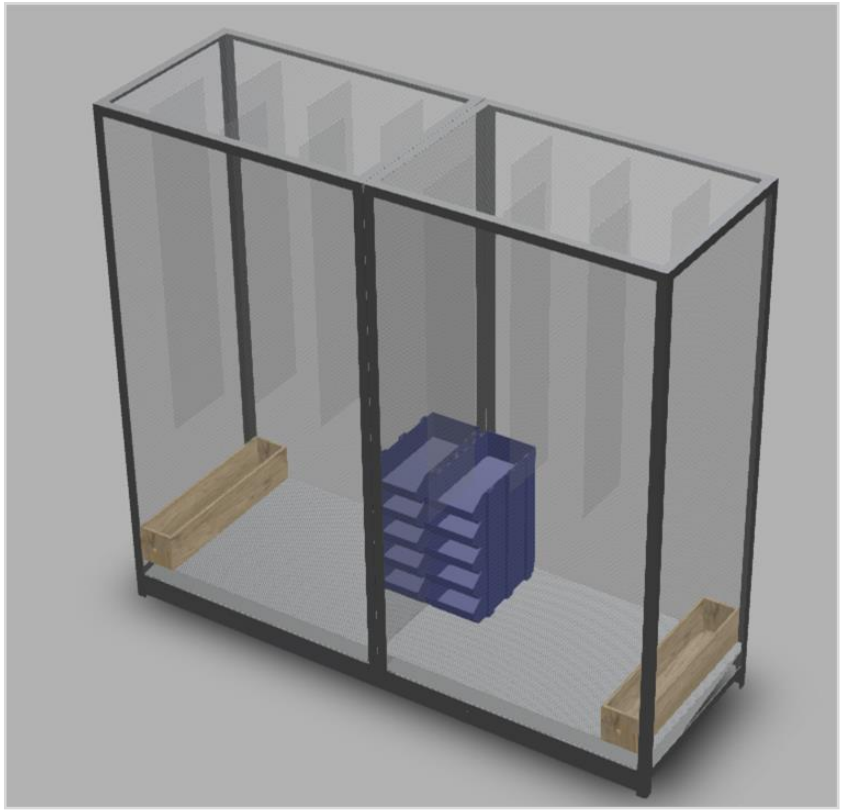
CONS

- Short heights limits flying space
- Labour intensive

First significant design change - **Tall cage**



PROS

- Cost-effective
- Adequate space for flying and mating
- Plenty of light

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CONS

- Rearing process not optimized

Final cage design - Develop the **2-step process** to optimize rearing of flies.

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Dark Cage for Fly Eclosion

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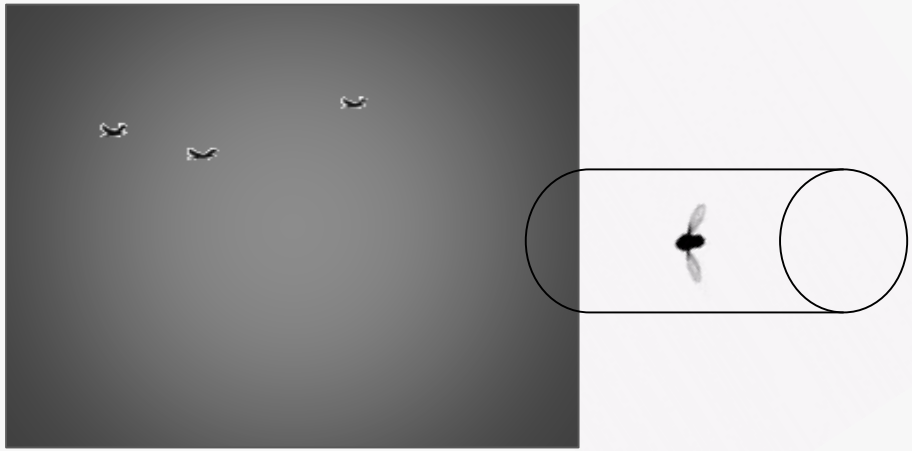

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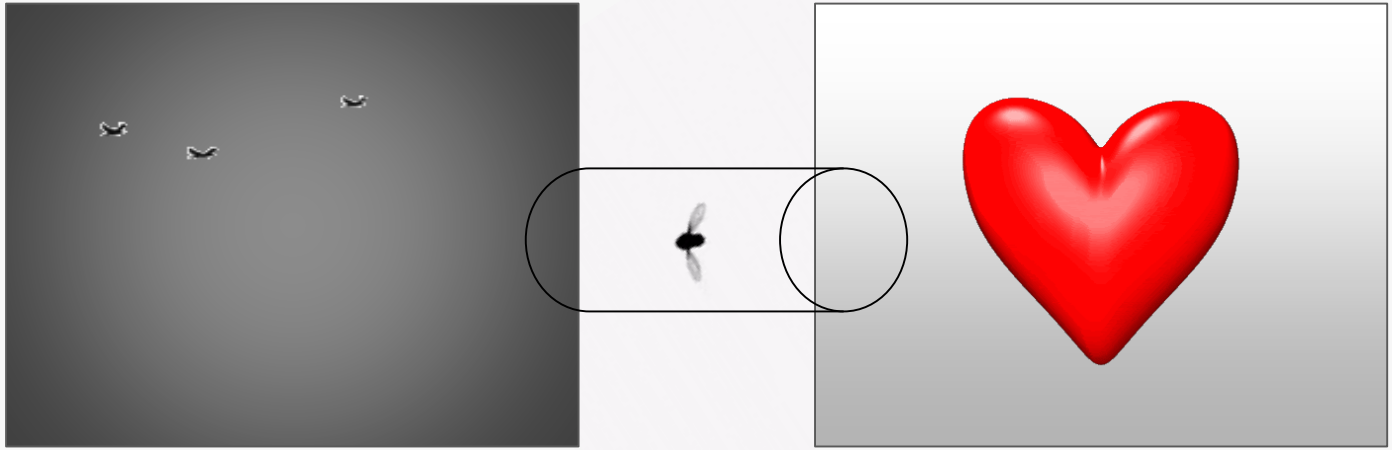
Love Cage for Mating



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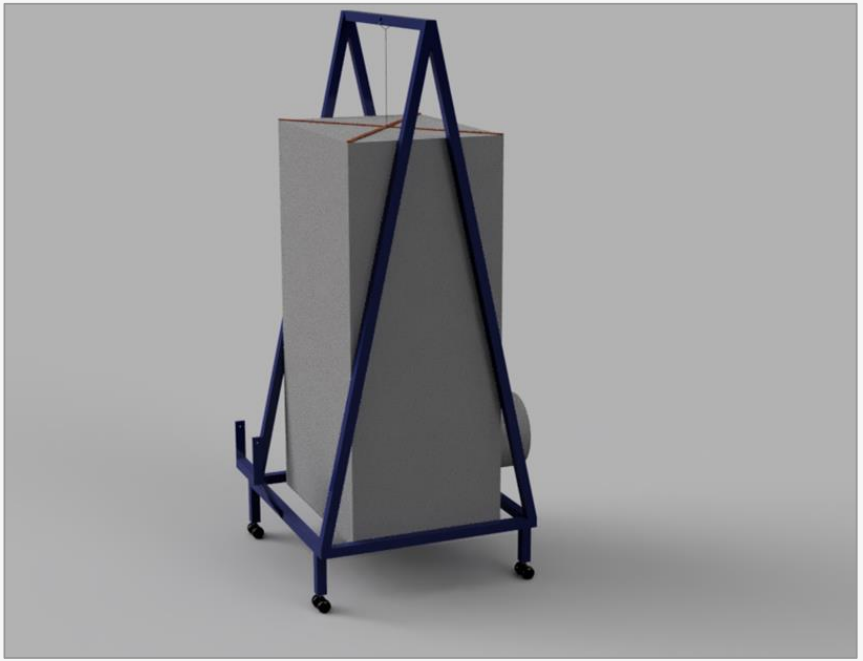

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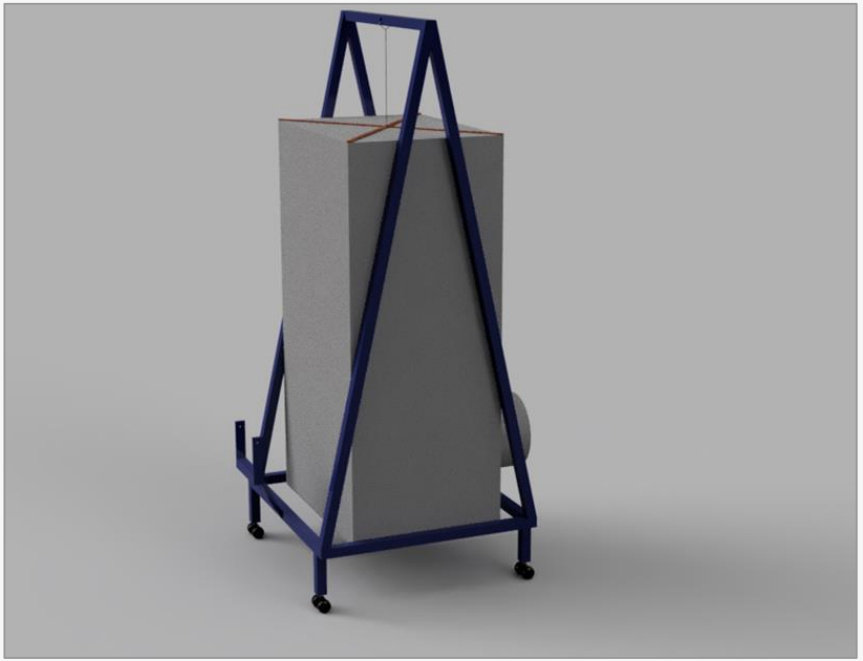

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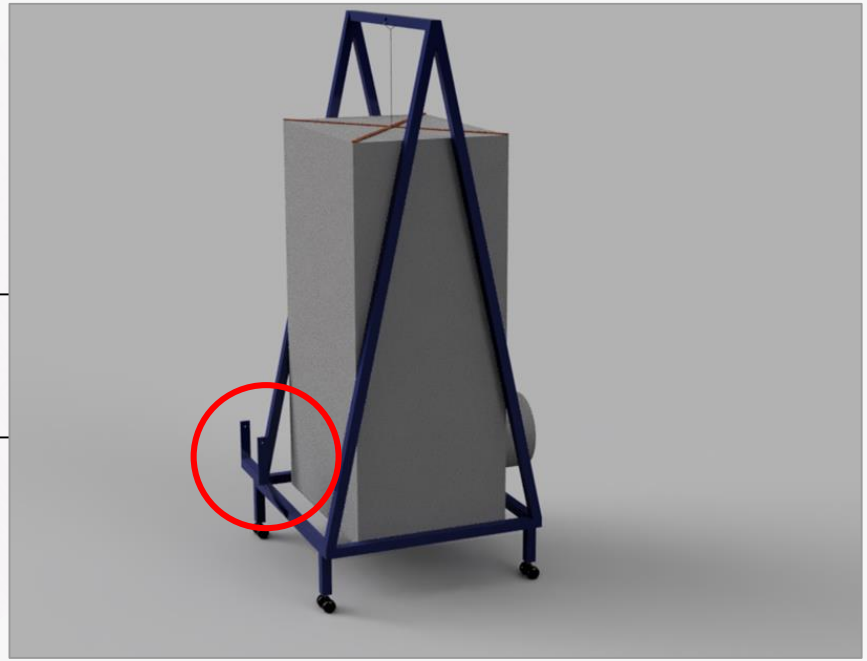

Optimal **climate conditions** to boost Black Soldier Flies' love.

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