

FUTURE FOOD SYSTEM BY JOOST

Melbourne 2020

FUTURE FOOD SYSTEM BY

Joost

# FUTURE FOOD SYSTEM BY JOOST

## About this document

This document has been prepared following recent discussions with the City of Melbourne, Melbourne Water and Federation Square regarding plans for a temporary residential installation.

The following is an overview of the concept for the site. Engineering and architectural documentation is available upon request.

Should you have any queries, please contact:  
Joost Bakker  
[joost@byjoost.com](mailto:joost@byjoost.com)

---

01 - CURRENT STATE

02 - FUTURE FOOD SYSTEM BY JOOST

03 - JOOST BAKKER

04 - NEXT STEPS

The problem

THE WAY WE GROW, HARVEST,  
TRANSPORT, SELL AND EAT OUR  
FOOD IS THE MOST DESTRUCTIVE  
HUMAN ACTIVITY ON THE PLANET.

The problem

**58%**

**of the world's carbon emissions are created by our current food system**  
Transport accounts for only 17%

The World Bank

**Annually, food wastage costs the global economy**

Food and Agriculture Organisation,  
United Nations

**\$940B**

**SOIL**

**exploitation has stripped essential vitamins and minerals from the food we currently eat**

Food and Agriculture Organisation, United Nations

The vision

IMAGINE SOLVING THE WORLD'S  
BIGGEST PROBLEMS BY SIMPLY  
CHANGING THE WAY WE LIVE.

WE HAVE THE ABILITY TO CREATE  
POSITIVE IMPACT BY GROWING  
OUR OWN FOOD.

EVERY ONE OF US GENERATES AN  
ABUNDANT NUTRIENT SOURCE -  
WE JUST NEED TO HARNESS IT.

Melbourne 2020

**The world's most nutrient dense food grown using  
the world's most wasted and ubiquitous resources**



A world first example of zero waste living



### THE ECOSYSTEM

Future Food System is a self sustaining, closed loop, two-bedroom home that will shelter, feed and provide energy for its inhabitants.

The human driven system will mimic nature - upcycling what we currently regard as 'waste', in order to grow nutrient dense, delicious produce.

### ACCESSIBLE & AFFORDABLE

The concept has been designed to ensure all building processes and living systems are inclusive and openly available to the public:

- Open source design
- Building materials and manufacture: \$250K
- Community education via social media: build details, sustainable living information, recipes

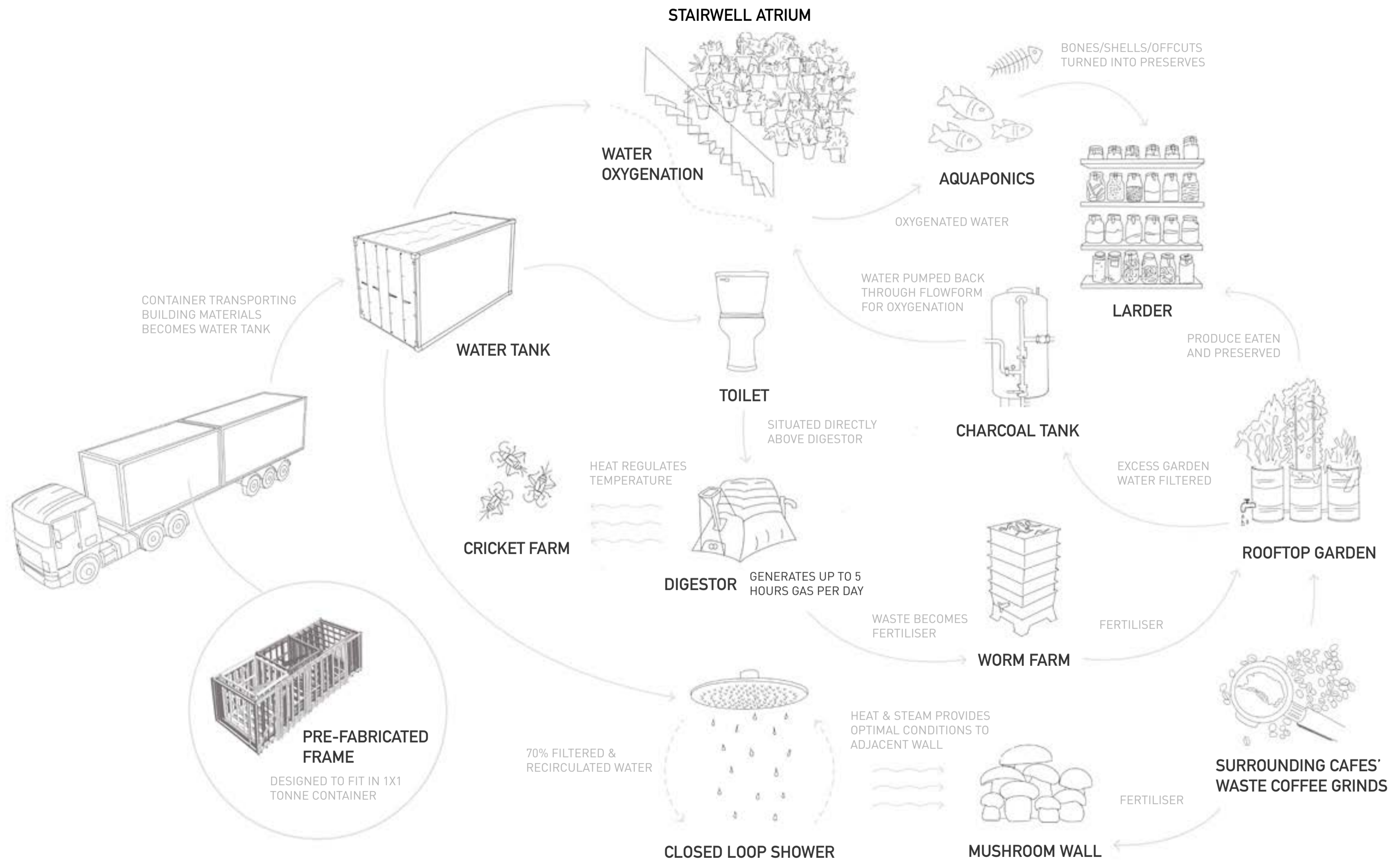
### THE RESIDENTS

Award winning chefs Matt Stone and Jo Barrett will embark on a 6 month residence; growing, harvesting and cooking food sourced from the building.

Future Food System will host special guests, influencers, educators who will be encouraged to share their experience and learnings via social media.

# 02 | FUTURE FOOD SYSTEM BY JOOST

## How it works





The building



Measuring success



In partnership with the University of Melbourne, the CSIRO and leading subject matter experts, Future Zfood System's goals will be tracked and analysed, and findings regularly shared with the general public.

**GOALS**

**MEASUREMENT**

Produce enough food for 2x people over 6 months (approx. 3 tonnes)

Count, weigh and record output of gardens and farms

Elevate inhabitant wellbeing through indoor presence of natural elements

Monitor indoor air quality (micro-flora, RNA)

Produce adequate utilities to sustain everyday living activities

Solar and gas production and usage  
Water systems efficiency

Improve the nutrient density of food

Nutrient comparison of supermarket produce vs. Greenhouse produce

Monitor inhabitants' gut flora (regular stool analysis)

Engage the public in sustainable habits

Social media growth and engagement

Engaging the community



### ROUND TABLE TALKS AND PANELS

Future Food System will host weekly talks and panel discussions by the world's leading sustainability researchers, scientists, thinkers and doers.

These will be broadcast live to the general public on @GreenhousebyJoost's Youtube and Instagram TV channels.

### SCHOOL PROGRAMS

By teaming up with leading educational programs provider Cool Australia, over the course of 4 months, 10,000 school children will be invited in to learn, experience and get excited about the future of homes and food.

### DAILY SOCIAL MEDIA UPDATES

Future Food System's Instagram accounts will feature real time updates on building performance and activities:

@futurefoodsystem will showcase:

Daily dishes, and the process undertaken to bring them to the table: from planting to harvesting, to cooking to disposal.

The systems and processes of the building, and how they can be replicated at home

Future Food System: 25 years in the making

2002

2006

2007

2008

2009

2011



**VERTICAL GARDEN,  
SCHIAVELLO**

Pioneered vertical garden concept for commercial and residential interiors

**MACQUARIE BANK  
MARQUEE, FLEMINGTON**

Marquee built with recycled tyres, packing crates, recycled fibres and organics.

Key instigator and advisor on VRC's recycling processes.

**BAKKER FAMILY HOME,  
MONBULK**

Straw bale house built from 100% recyclable, non toxic materials

**GREENHOUSE POP-UP,  
FEDERATION SQUARE**

World-first restaurant pioneering sustainable hospitality systems:

- 100% recyclable building
- Organics recycling & recovery
- Wine on tap
- Prouctive rooftop garden

**GREENHOUSE  
RESTAURANT, PERTH**

Leader in implementing and advocating for zero waste processes:

- Zero carbon footprint
- Milk on tap
- Stone milling of all grains
- Natural wine on tap

Best New Restaurant, Good Food Guide 2009

**GREENHOUSE POP-UP,  
SYDNEY HARBOUR**

Evolving the Greenhouse concept, this completely off-grid restaurant featured:

- In-vessel composting
- 100% recycled steel skeleton
- 100 tonne rooftop garden

Future Food System: 25 years in the making

2012

2014

2016



**GREENHOUSE POP-UP, SOUTHBANK**

Melbourne Food & Wine Festival hub. This innovative off-grid, zero waste structure featured:

- Urine harvesting system
- Powered by energy from used cooking oil
- Zero chemical use
- Full tap system for drinks
- Recycled rubber floor



**CSIRO TEST: BUSH FIRE RESISTANT HOUSE**

First building to survive a full bush fire (1000C) simulation

- 100% recyclable materials
- Straw insulation
- 28C max internal temperature



**SILO BY JOOST CAFE, MELBOURNE**

World's first completely zero waste restaurant that pioneered the adoption of sustainable systems in the industry:

- Closed loop composters
- Returnable delivery vessels
- Tap based drinks system



**BROTHL RESTAURANT, MELBOURNE**

Zero-waste soup eatery that used the byproducts of high-end restaurants to create broth.

- Inspired the 'wasted' movement in the USA
- New York Times article anointing Joost the "poster boy for zero waste"



**BUSH FIRE RESISTANT HOUSE, KINGLAKE**

Off-grid, bushfire resistant house

- Concrete made from 100% recycled waste
- Straw insulation
- Green roof for thermal regulation

Featured on Grand Designs S06 E03



**LEXUS MARQUEE, FELEMINGTON**

Spring racing carnival 3 level, 350 capacity pavillion

- Modular design and build
- Re-usable structure
- Zero-waste system

Media



**NEW YORK TIMES  
STYLE MAGAZINE**

The Trash collector  
Feb 13, 2015



**AUSTRALIAN FINANCIAL  
REVIEW**

Joost Bakker designs a  
home that will feed you  
Jun 15, 2017



**THE AUSTRALIAN**

The house that Joost built  
March 20, 2015



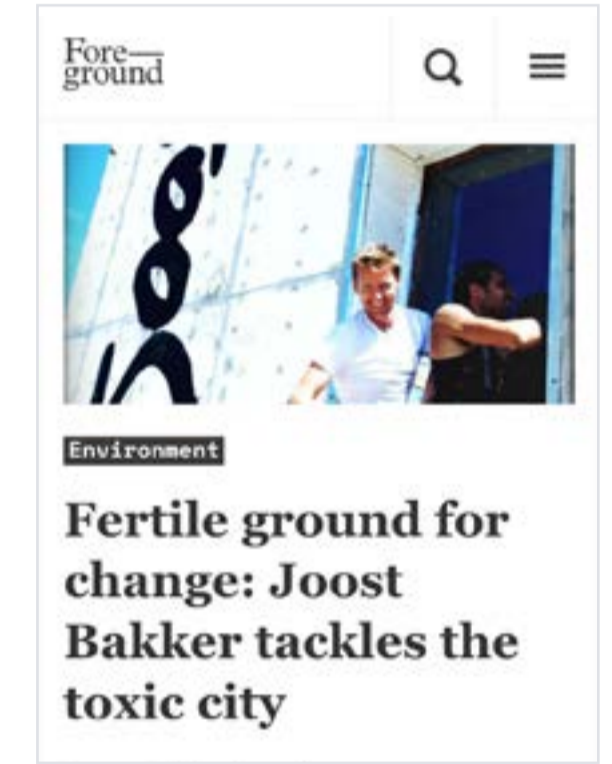
**TEDx SYDNEY**

Growing a rooftop  
revolution  
May 4, 2016



**THE DESIGN FILES**

Homes: Joost and Jennie  
Bakker and family  
Apr 2, 2014



**FOREGROUND MAGAZINE**

Fertile ground for change:  
Joost Bakker tackles the  
toxic city  
Mar 7, 2019

Roadmap

NOV 2019

DEC

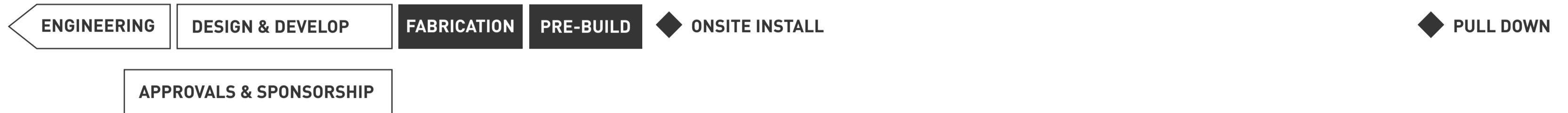
MAY

JULY

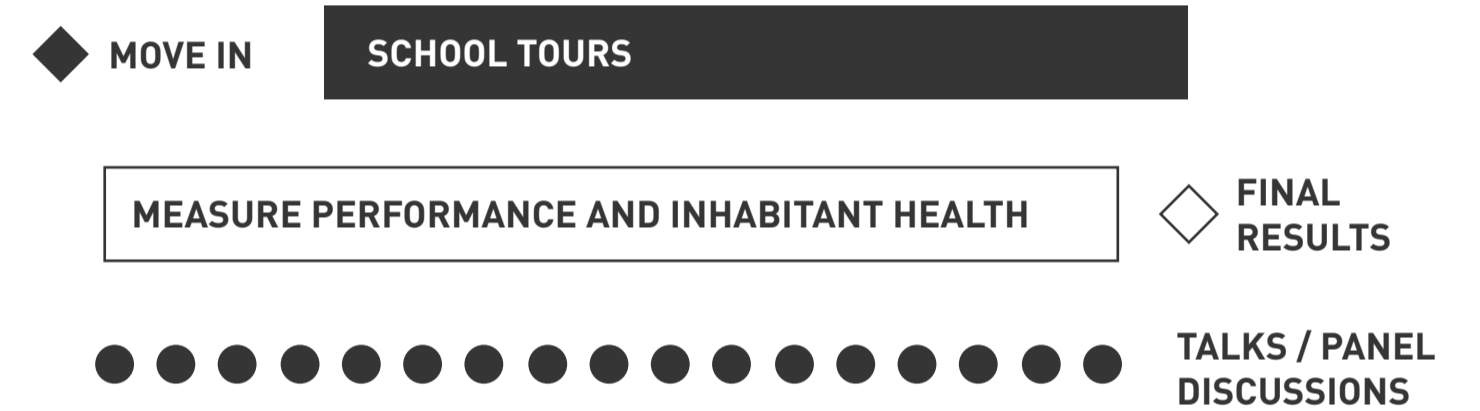
AUG

JUN 2021

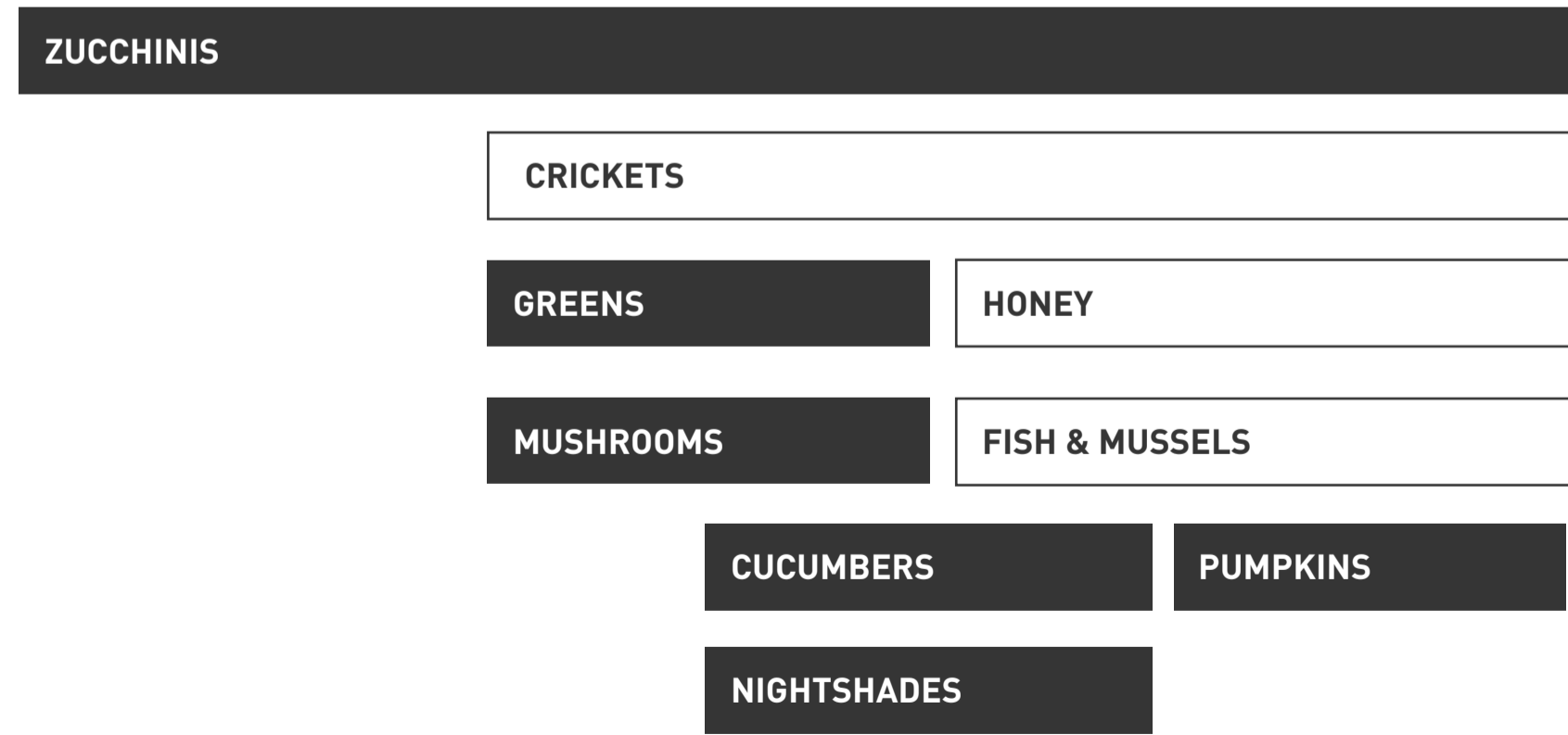
DESIGN & BUILD



ONSITE ACTIVITIES



HARVEST CALENDAR



Partners





IMAGINE SOLVING THE WORLD'S  
BIGGEST PROBLEMS BY SIMPLY  
CHANGING THE WAY WE LIVE.

Joost Bakker | [joost@byjoost.com](mailto:joost@byjoost.com)