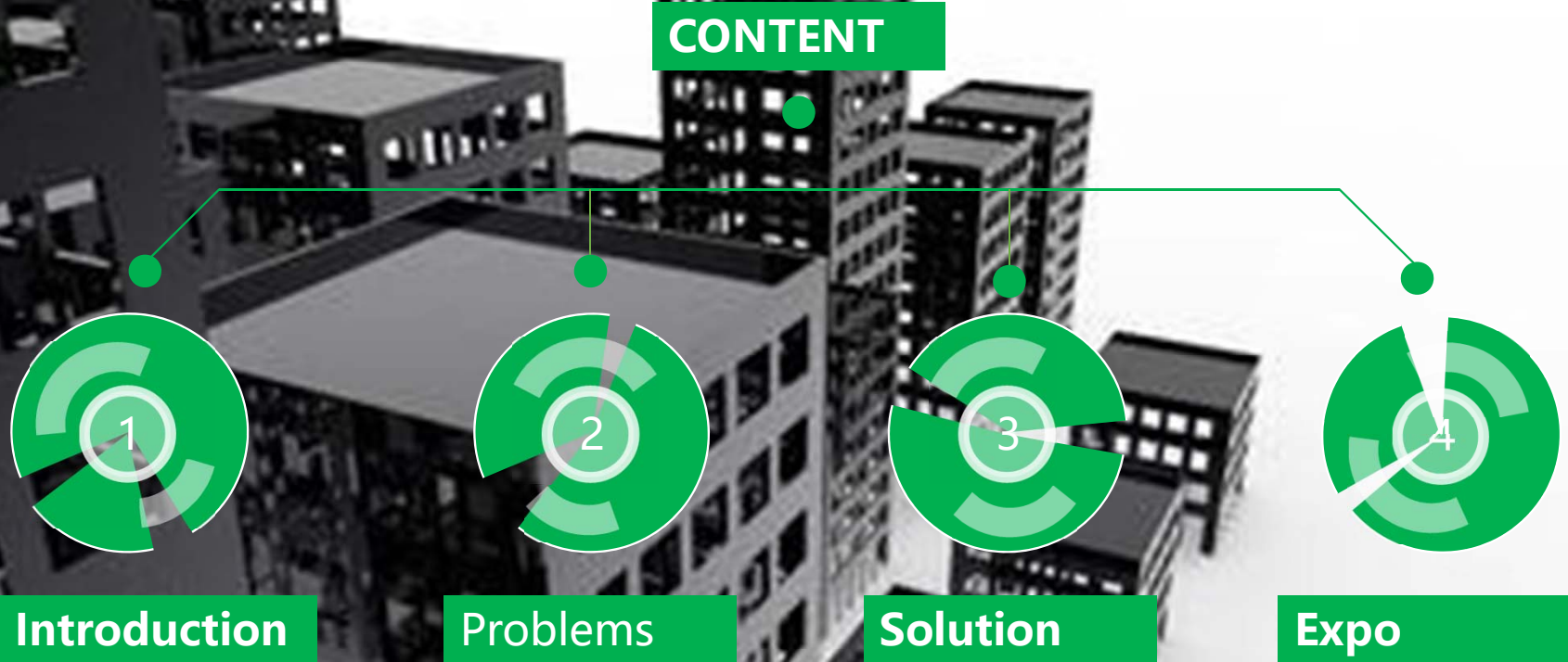


# THE ROUTE OF RECYCLING



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# HOW TO PUT ZERO WASTE INTO PRACTICE





# I、 INTRODUCTION

## INTRODUCTION

## How to put 'zero waste ' into practice

### BACKGROUND:

The urban sustainability challenge we will address is the overload of waste humans produce nowadays.

### COOPERATION:

For this project, we will work together with CCUD, The Vanke , Xishan Community .

### WHAT WE WILL DO :

From Xishan Community

- their concerns
- the problems
- the situation right now

We will prototype a solution to improve garbage classification in Xishan community.

## COOPERATION PARTNER

China Centre for Urban  
Development

- The main cooperation partner in this project

CCUD

Providing data/research support in garbage classification project

VANKE FOUNDATION

### COOPERATION PARTNER

The first green community in China .

XISHAN COMMUNITY

TSINGHUA UNIVERISTY

"Sustainable urbanization in International Comparative Perspective "

## Xishan community

## How to put 'zero waste ' into practice

- Vanke community (665 households)
- Started garbage classification on 2006.
- The first batch of green community in China
- Took the lead in using kitchen waste treatment machine to turn kitchen waste into steam, carbon dioxide and fertilizer



# GARBAGE CLASSIFICATION IN XISHAN COMMUNITY



Workers transfer garbage tong to the station to classify garbage



Four type of waste will be transfer to waste disposal plant

Source classification

Secondary classification

Kitchen waste treatment

Transferring of waste

Classified garbage to :

- Harmful waste
- Kitchen waste
- Recoverable waste
- Other waste



After high temperature and anaerobic process, kitchen waste become fertilizer



Xishan community

How to put 'zero waste ' into practice



**KITCHEN WASTE TREATMENT IN XISHAN COMMUNITY**



Daily production of waste

> 600 kg

Daily recover amount of recyclable garbage

> 60 kg

Daily disposal amount of kitchen waste

> 100 kg



Daily garbage reduction

> 30 %





## II、PROBLEMS in XISHAN

Lacking of  
resident  
willingness

Energy consumption of  
kitchen waste treatment  
machine



Waste of human  
resource

# PROBLEMS



### III、 PROPOSAL OF SOLUTION



## PROPOSAL FOR THE SOLUTION

### RESIDENT

- Spreading knowledge among residents by community event / Workshop
- Cooperating with kindergarten in community, organizing green activity and outdoor classes.

### WORKERS

- Replacing old trashbin by new kind of trashbin which store big underground trash underground

### BIOLOGICAL COMMUNITY

- Creating a biological chain by replacing old machine by Black Soldier Fly to treat kitchen waste.
- Black Soldier Fly turn kitchen waste to fertilizer and can be used as feeds.

### HUMANIZED TRASH BIN

- Improving visual design of trash bin to make garbage classification be easily understand.
- Launching an excitement mechanism by QR code on trash bin , leads to reward points on mini program Wechat .





#### IV、 EXPOSITION PLAN



**HUMAN CITIES EXPO IN STANFORD, 3<sup>rd</sup> DEC 2018**

1. POWERPOINT & POSTER & FLYER
2. FLOOR GAMES OF BIOLOGICAL CHAIN
3. MODEL OF NEW KIND OF TRASH BIN
4. IPAD PLAYING VIDEOS OF THE PROCESS OF BLACK SOLDIER FLY DIGEST KITCHEN WASTE

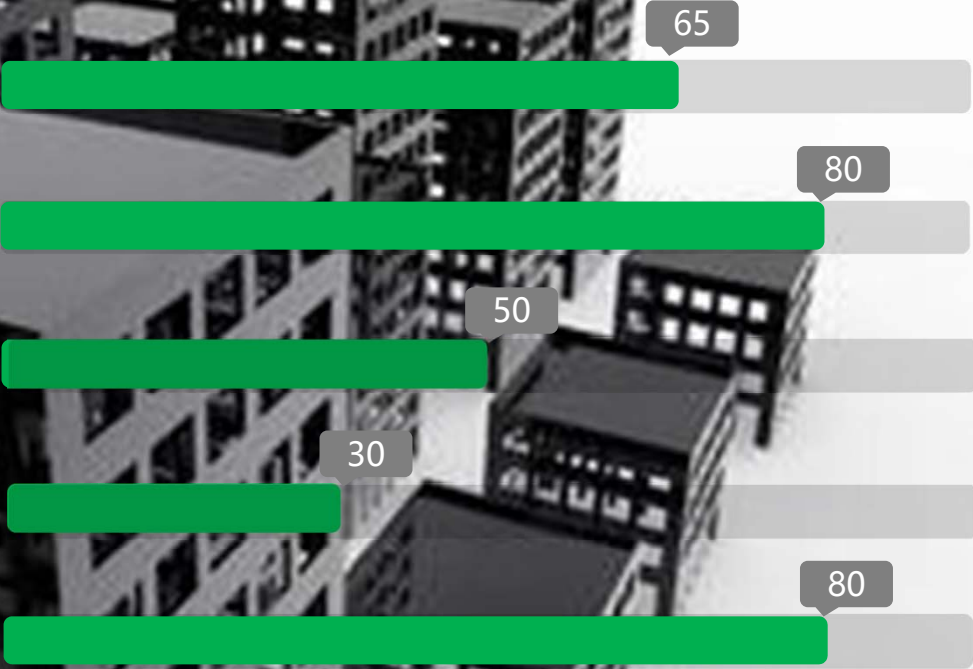


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## PROGRESS BAR

### PROGRESS

- SURVEY
- POWERPOINT
- POSTER
- 3D MODEL
- FLOOR GAMES



THANK YOU

