

# Green Tea

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An example of smart and sustainable refurbishment.

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[www.teabuilding.co.uk](http://www.teabuilding.co.uk)

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[www.derwentlondon.com](http://www.derwentlondon.com)

Green Tea brings together all sorts of clever thinking to help us improve energy efficiency, reduce carbon output and make life at Tea more enjoyable.



Tea is a great environment to work in, but it was designed to house sacks of tea, not people, and built in the days when energy efficiency wasn't on anyone's radar.

So there's lots we can do to keep improving this light industrial space and make it a model of comfort and sustainable development.

## The Approach

Our strategy is to provide comfortable and flexible working conditions that will be sustained through intelligent energy conservation. The smart proposals could reduce consumption by 25% of the current energy usage of Tea Building.

### Stage 1: Better Windows & Insulation

- New double glazed, openable windows with solar control to reduce heat gain.
- Natural ventilation.
- Insulation.

### Stage 2: Clever Lighting

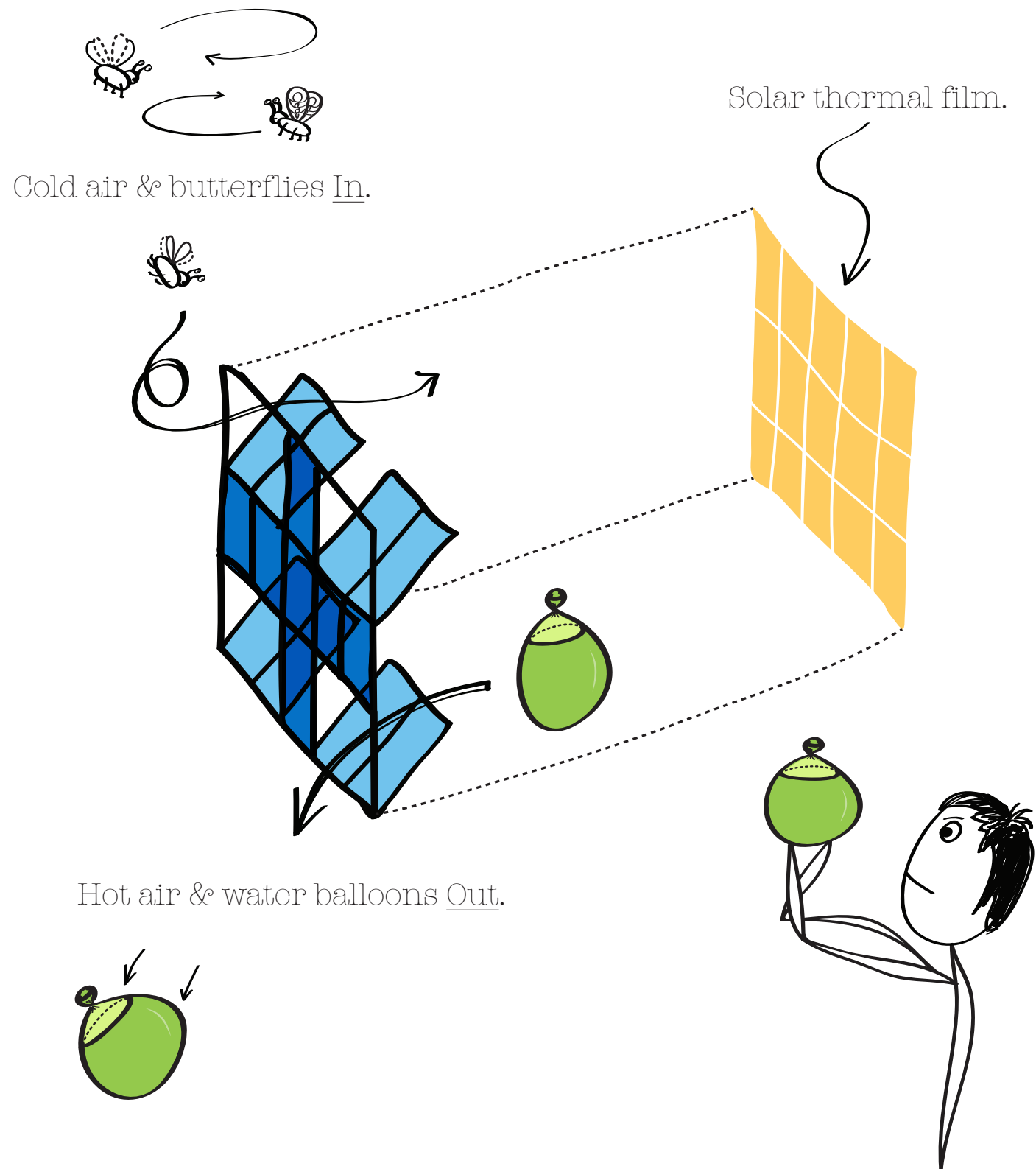
- Lower energy fittings.
- Movement detection in common areas.

### Stage 3: Smart Thermal Loop

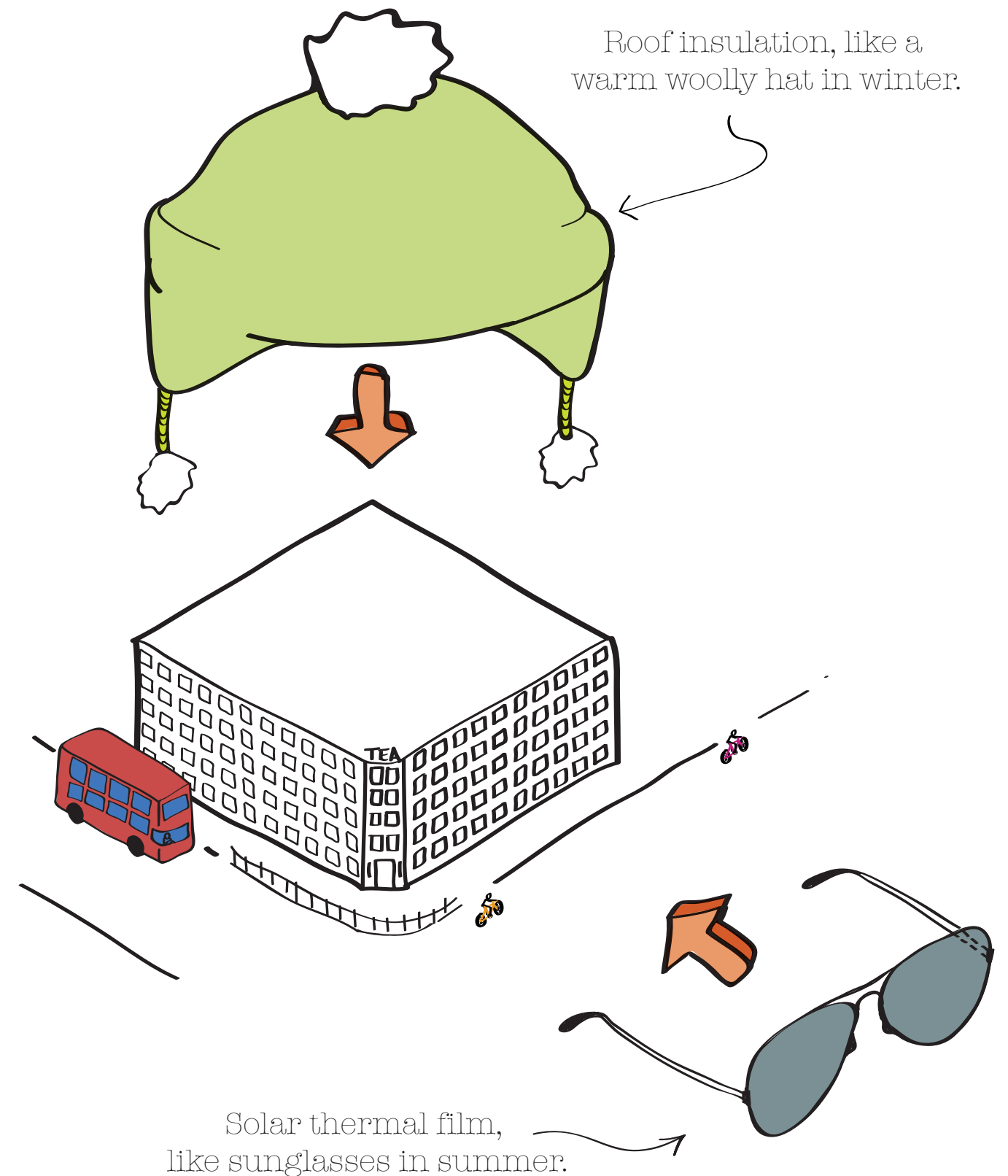
- Excess heat to cold areas.
- Excess cooling to hot areas.

## Stage 1: Better Windows & Insulation

We're replacing all the old single-glazed windows with double-glazed ones. They provide better thermal insulation and solar control to keep the building cool in the summer, and natural ventilation... they open!

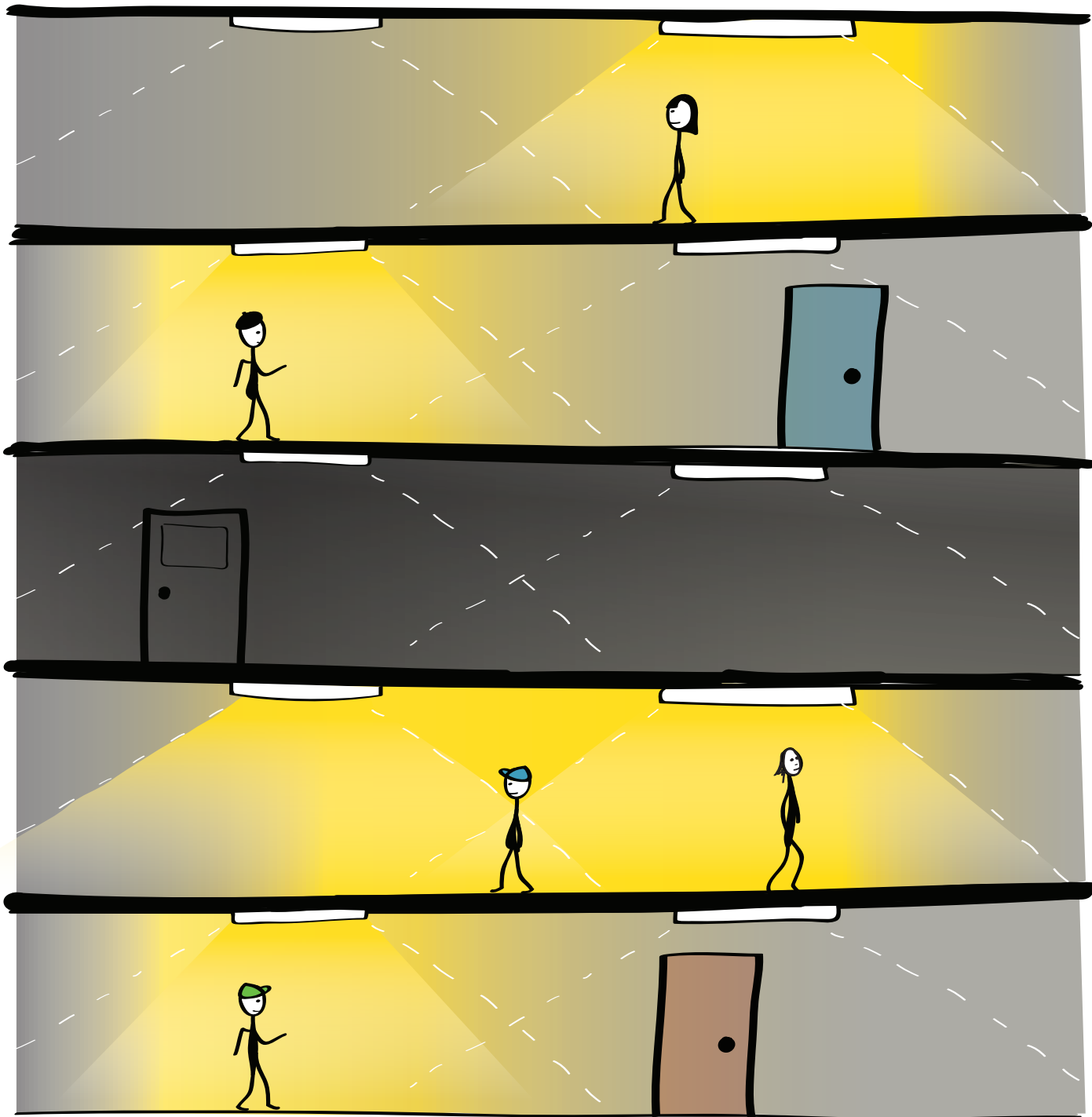


We've also insulated the roof to help keep the heat in and solar gain out.



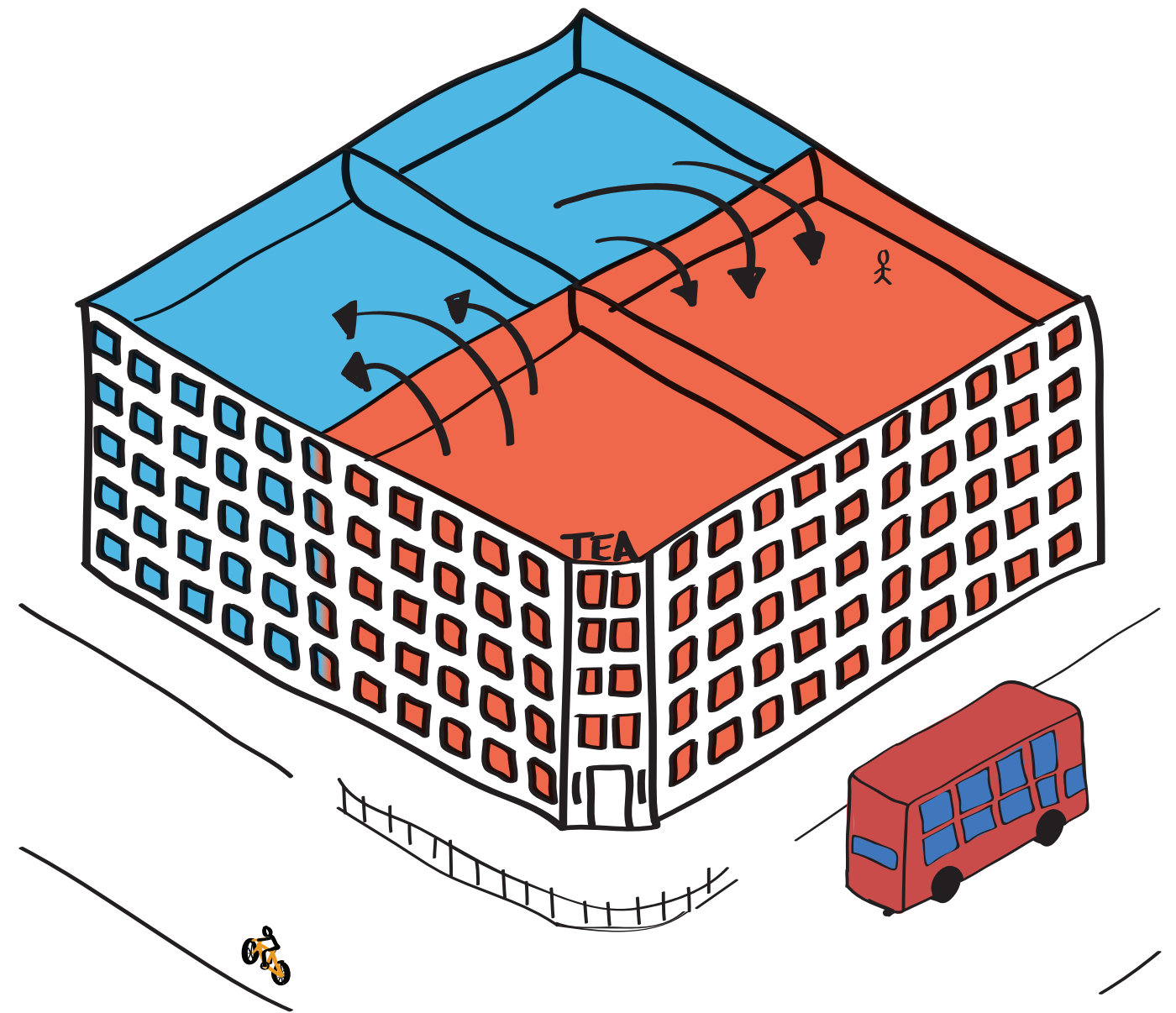
## Stage 2: Clever Lighting

We're fitting new, high-efficiency lamps all over the building and giving them intelligent infra-red sensors. So they switch themselves off during the night or when nobody is around, and back on again when people are around or it gets darker.



## Stage 3: Smart Thermal Loop

The sun hits the south of the building, so it heats up quicker than the north side. Our smart rooftop heat exchanger makes sure this heat is evenly distributed, so nobody gets too hot or cold. If it's chilly outside, this extra heat is shared around.



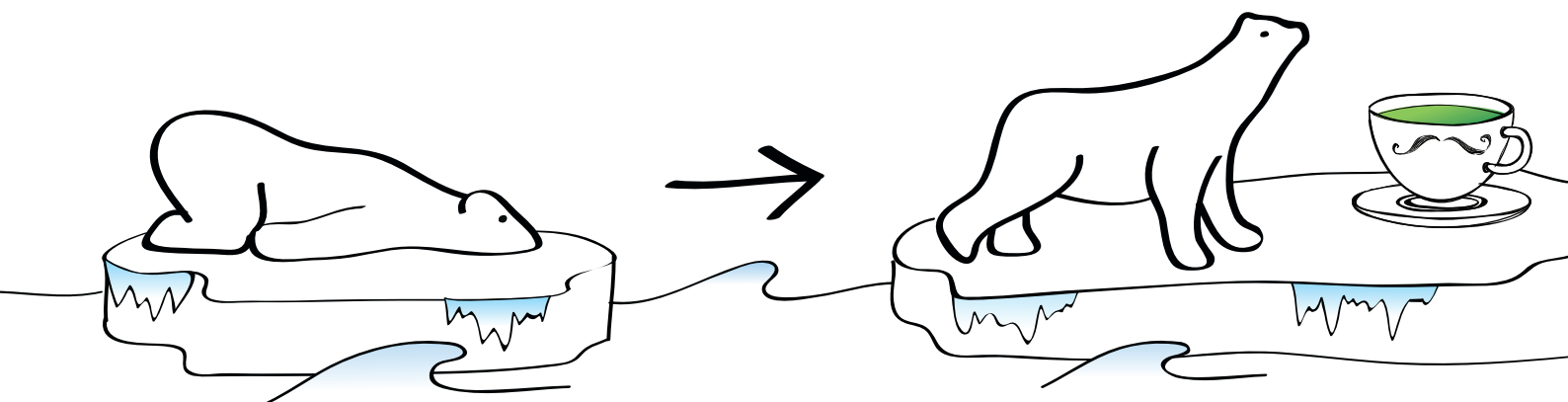
And if it's boiling hot, the colder air from the north of the building is shared so everyone stays cool. The more units that plug into the system, the more efficient it becomes.

# In a nutshell

- Improved windows for better insulation and ventilation.
- Smart, efficient lighting that switches off when it isn't needed.
- A clever thermal loop that distributes heat evenly around the building.

## What this means for you

- Savings on your utility bills & service charges.
- Physical comfort in units.
- Environmentally friendly feel-good factor.
- Extending the lives of polar bears.\*



\*Desired outcome, but not guaranteed.

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