#### FEWER HARRINGTON & PARTNERS

ARCHITECTS, PLANNERS & PROJECT MANAGERS

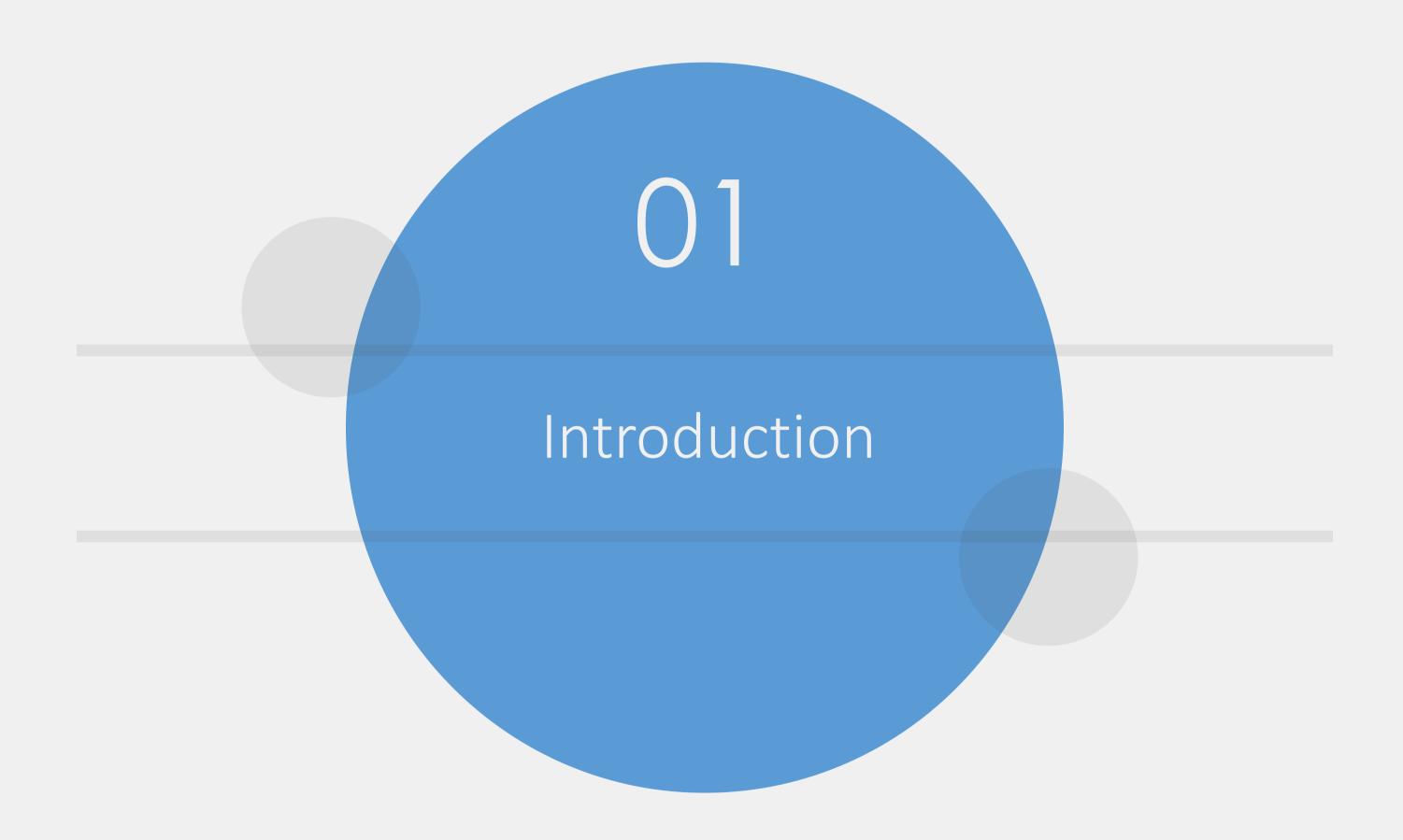
A credible partner with local knowledge and international experience

www.fhp-architects.com



Ireland



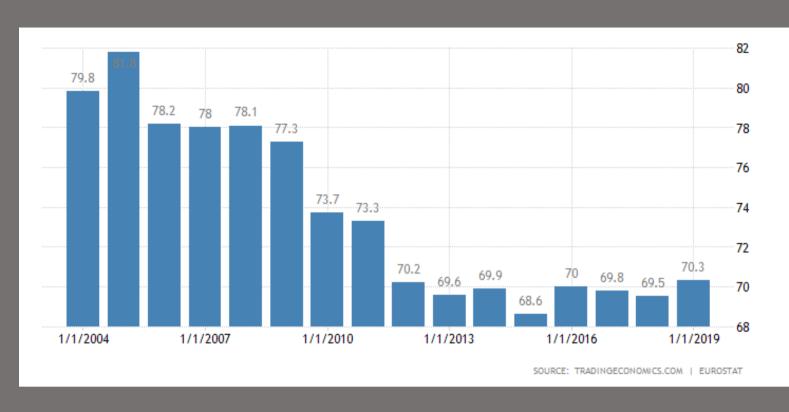


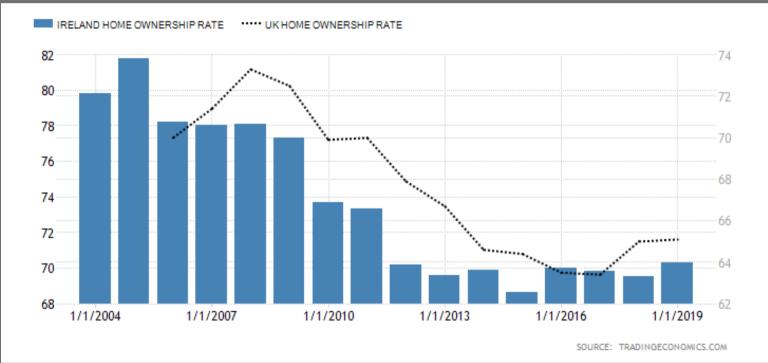
#### About us

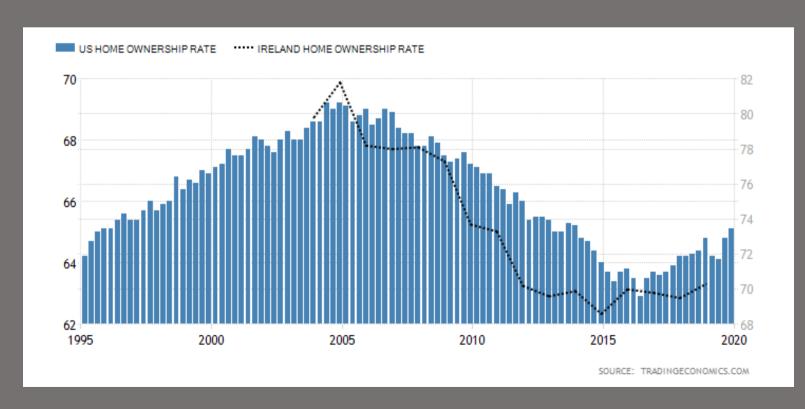
- One of Ireland's leading architectural practices
- Delivered over 10,000 residential units in Ireland
- Over 40 years of design / construction
   experience
- Extensive modular construction experience
- Seeking innovative solutions to the Housing
   Crises











#### Not long ago, Ireland had one of the world's highest rates of homeownership.

Ireland Home Ownership Rate

Ireland Home Ownership Rate
Vs
United Kingdom

Ireland Home Ownership Rate

Vs

USA

#### Today

\_







Homelessness has climbed sharply

Soaring Rents





Shortage of Housing

#### Housing Completion per year



FHP | Febraury 2020 Source: CSO Ireland

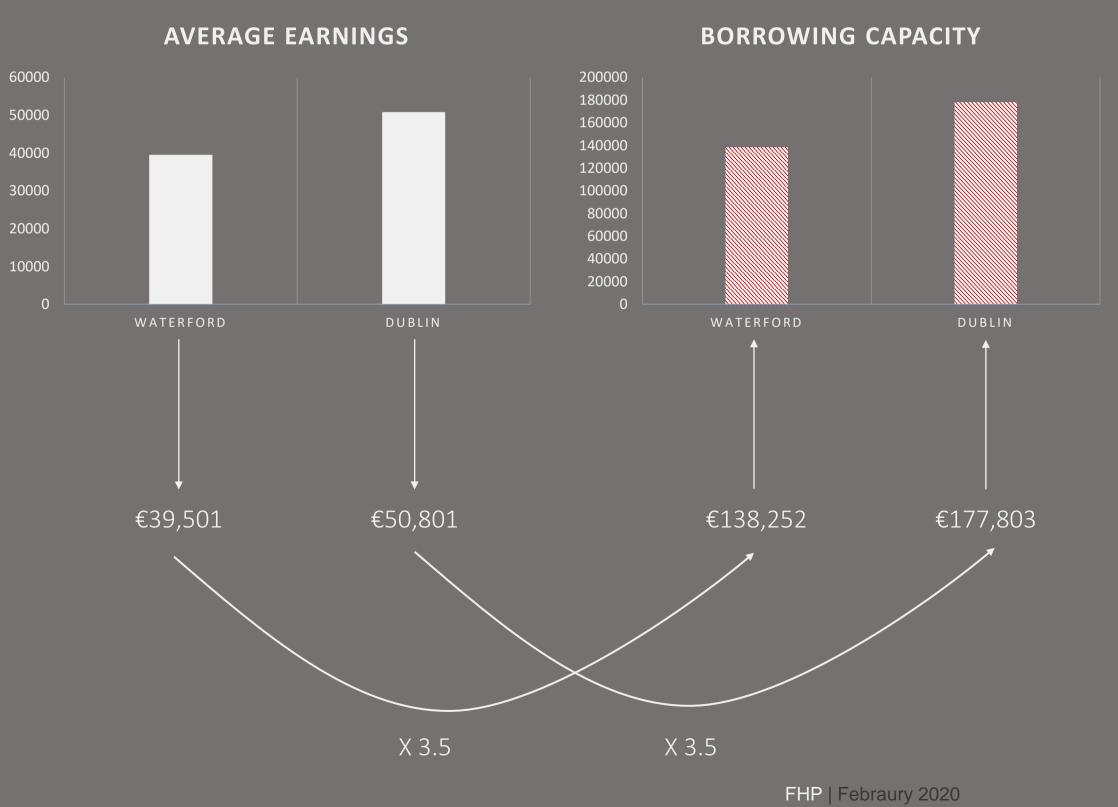
#### Construction Workforce

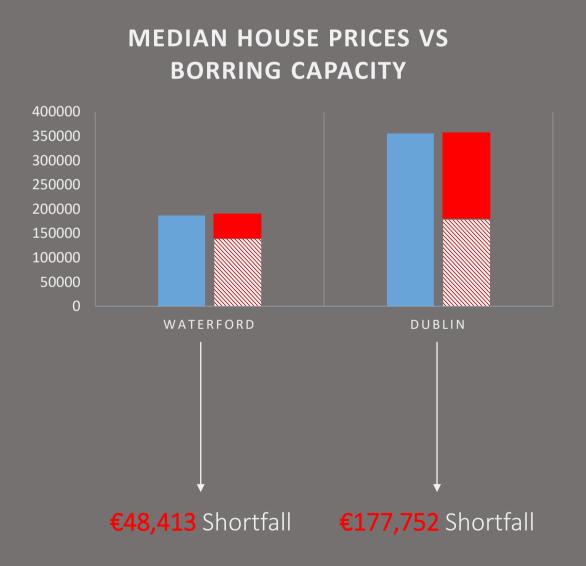


#### Factors Affecting Costs



#### Lack of Borrowing Capacity



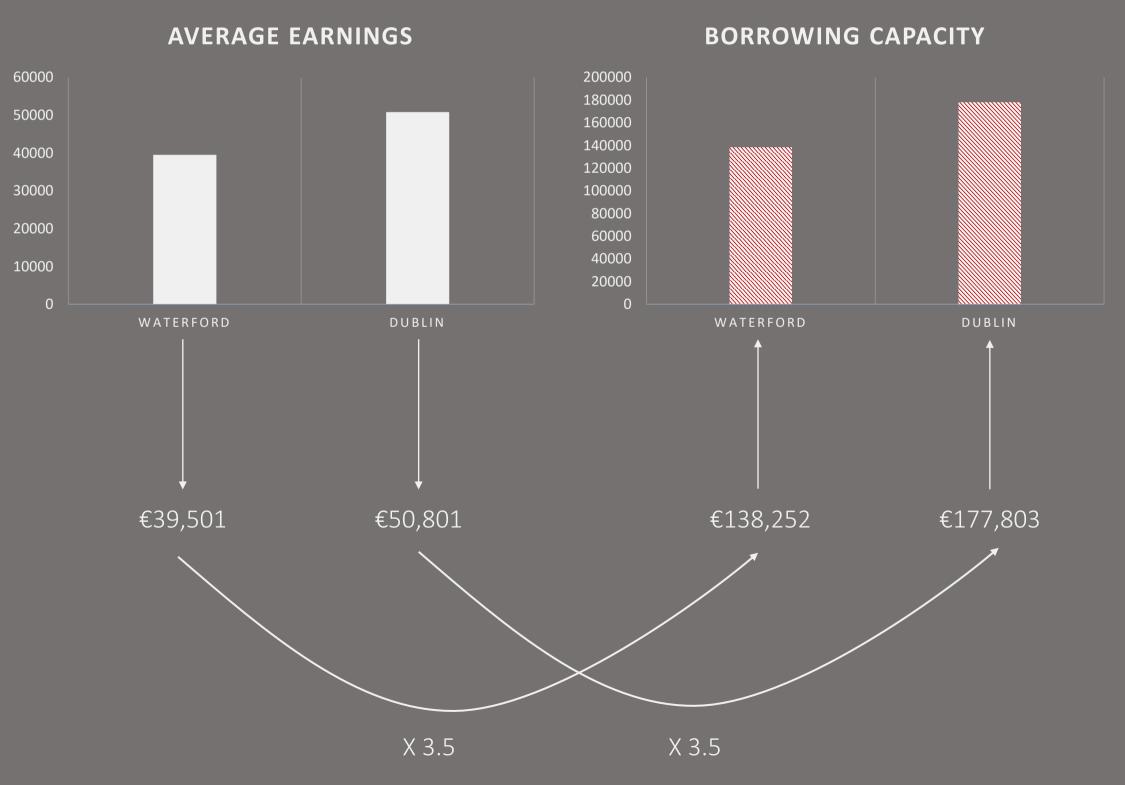


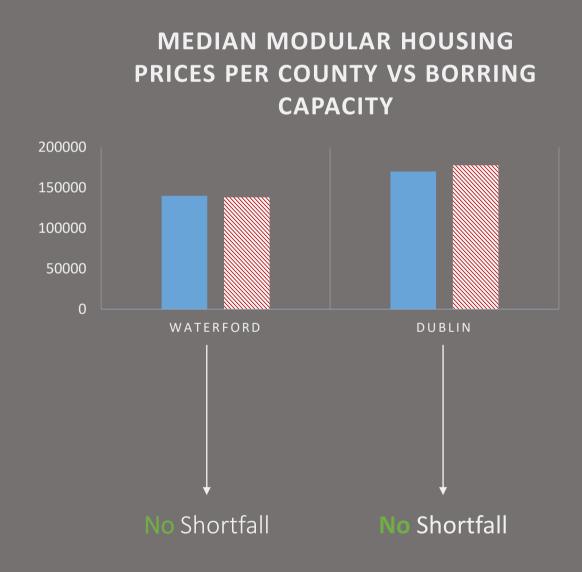
Source: CSO Ireland

An increased supply of private market house building does not necessarily reduce prices and rents.

Therefore, it is not all about supply – it is about the type of supply.

#### Apply the Average Cost of Modular Housing





FHP | Febraury 2020 Source: CSO Ireland

# The Guardian

## 'UK housebuilding revolution': £65,000 prefab homes go into production

Two Yorkshire factories try to tackle housing crisis with modular two and three-bedroom homes

#### **Patrick Collinson**

Fri 30 Nov 2018 00.01 GMT



The Ilke homes are bolted together on site, with the record for assembling a property standing at 36 hours. Photograph: Ilke Homes

The UK is entering a new era of prefab homes with the opening of a Yorkshire factory that will build fully-fitted three-bedroom homes with a price tag as low as £65,000.



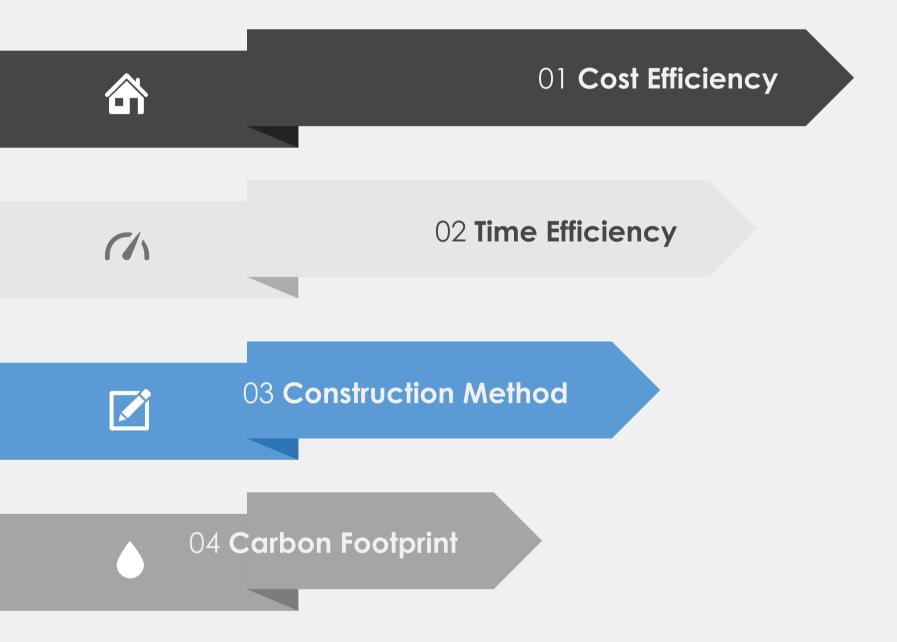
#### What is Modular Housing?

- Sectional pre-frabricated buildings or houses
- Modular is a method of construction as opposed to the traditional methods of building





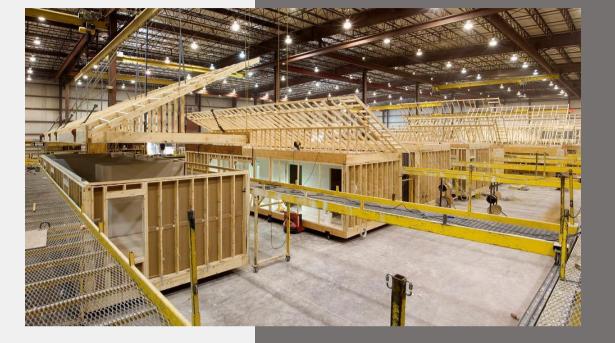
#### Why do we need Modular Housing?



## What is the process of Modular Housing?

01

Production



- Modular sections or the building are produced off-site in factory
- 60-90% complete off-site



Transportation



 Modular sections or the building are delivered to the intended site



Assembly



 Modular sections are assembled on site to connect with other modular section to make compose of building

## Why hasnt Modular Housing taken off?

#### 1. Past Misconceptions



- Post Second WW2 Housing Shortage
- Low quality and unsightly
- Today, precision manufactured, energy efficient, quality control, better working environments

## Why hasnt Modular Housing taken off?

#### 2. Scale of Production



- Factories that create modular housing require economies of scale, but the industry is relatively small
- More money required upfront for developers

## Why hasnt Modular Housing taken off?

#### 3. Change Aversion



- Most local planners are very conservative and 'change averse'
- "pre-fab" image

#### Advantages and Disadvantages

Speed of Construction

Indoor Construction

Low Waste

Environmentally Friendly

Flexibility

Quality

Improved Air Quality

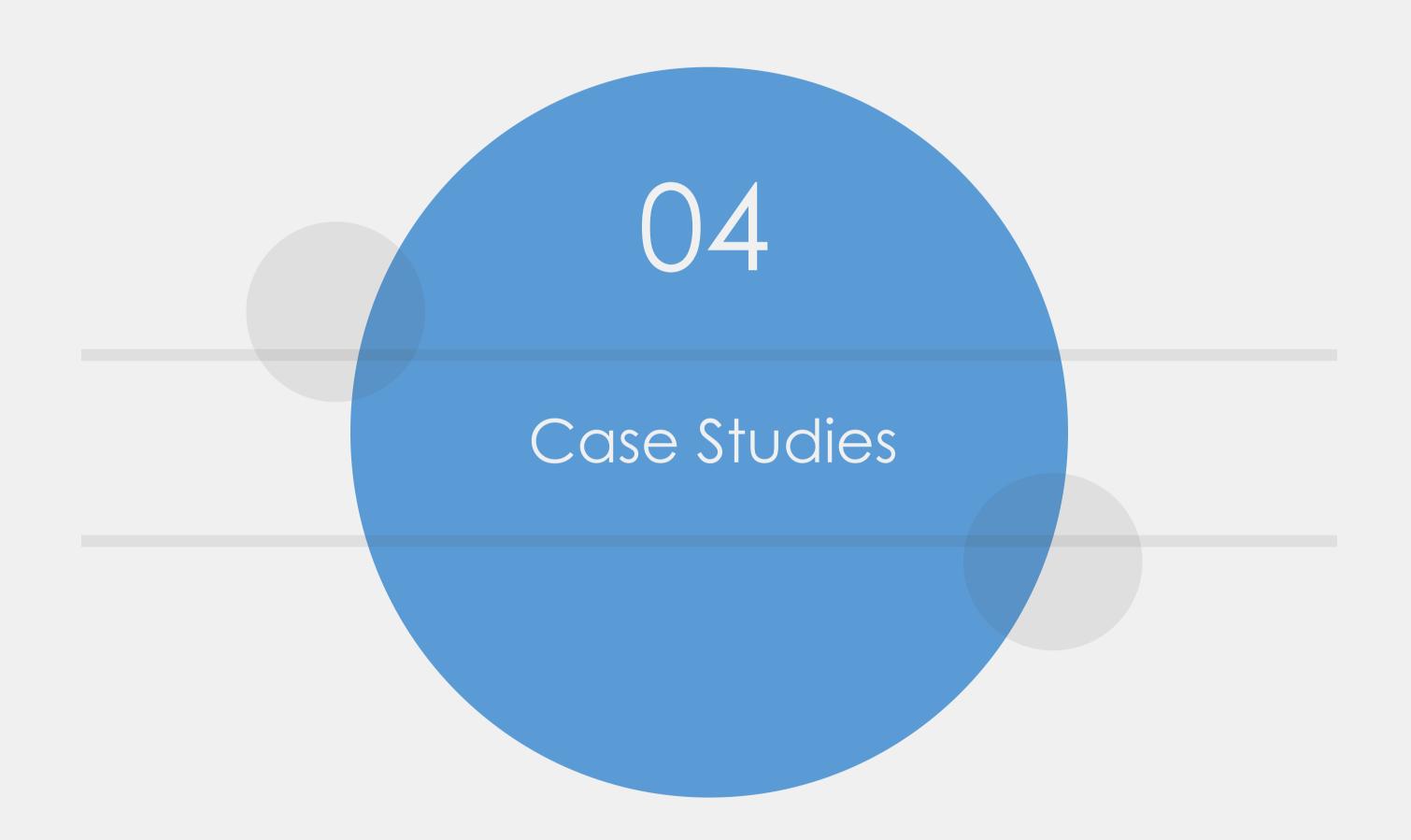
Dis.

Adv.

Transportation

Flexibility

Financial – Scale of Production





# HUS



#### urbansplash

KODA *light* by Kodasema











