

## The Financial Implications of Growth:

## Special Focus on Intensification

Community Planning Association of Alberta

2019 CPAA Conference

April 30, 2019



# The Future

*“The most reliable way to forecast the future is to try to understand the present.”*

John Naisbitt

# Agenda

- What are the financial implications of growth?
- What types of growth are financially sustainable?
- Principles of municipal finance: things you can count on
- How to integrate financial planning and land use planning







**TESLA  
ROADSTER**  
SEE THE FINE PRINT FOR  
DETAILS ON  
SPECIFICATIONS AND  
FEATURES.

**How much  
would you pay for this?**





**NEW  
RESIDENTIAL  
AREA**  
SEE THE FINE PRINT FOR  
DETAILS ON  
SPECIFICATIONS AND  
FEATURES.

**How much  
would you pay for this?**



How can you  
buy anything...

...without  
knowing what it  
will cost?

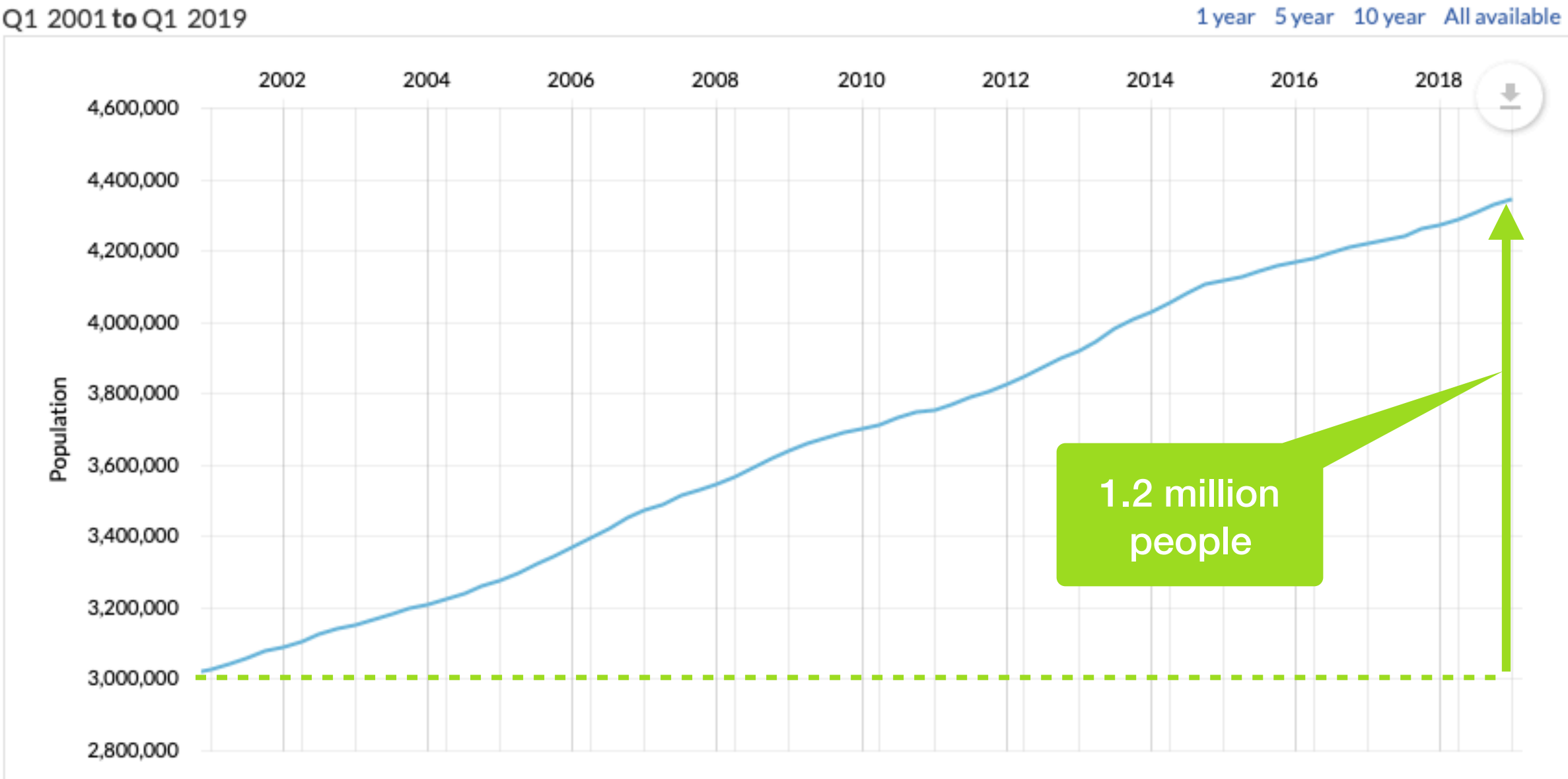




# Over 80% of growth has occurred in urban municipalities...

Alberta

By Province





# What is the nature of growth?

- Place to live ✓
- Place to work ✓
- Place(s) to play ✓
- Places to shop ✓
- Mobility ✓
- Public Services ✓ (many are municipal)





# Impacts of New Development

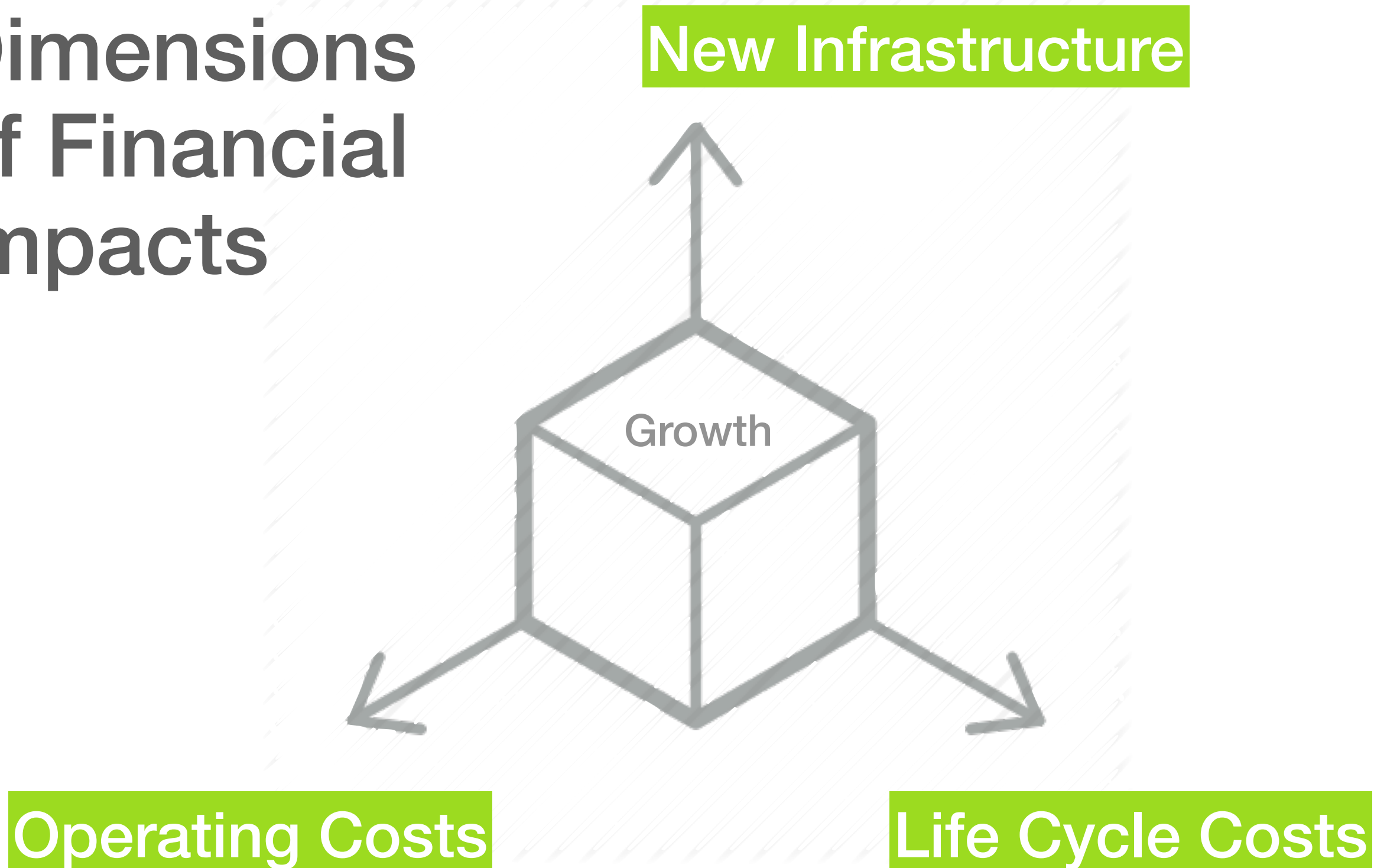
- Planning
- Linear Infrastructure
- Water, Sewer, Storm, Waste
- EMS
- Community Facilities (i.e. Recreation, Libraries)
- Parks
- Transit
- Community Services
- Governance

# Municipal Implications of Growth

Impact Area	Financial Responsibility	Notes
Planning	Municipal	
Linear Infrastructure	Shared	Developer Contributions
Roads	Shared	Developer Contributions
Water, Sewer, Storm, Waste	Varies	Cost Recovery
EMS	Shared	New: Levy funding Police/Fire
Community Facilities	Shared	New: Levy funding Recreation/Libraries
Parks	Municipal	
Transit	Municipal	Some Sharing: Green Grants
Community Services	Shared	FCSS
Governance	Municipal	



# Dimensions of Financial Impacts







# Growth Costs Money

All growth will  
increase municipal  
expenditures.

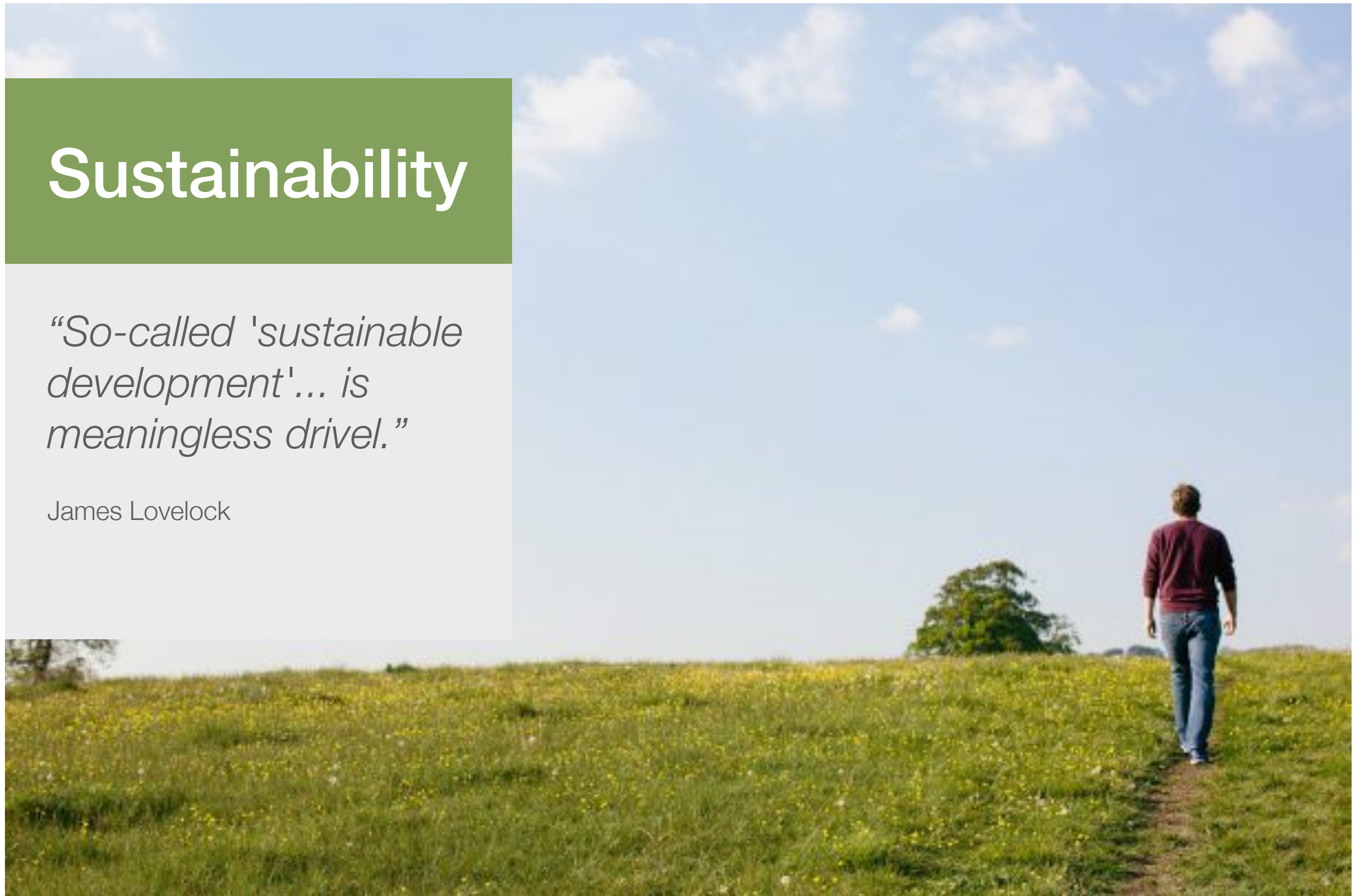
**Will it pay for itself?**



# Sustainability

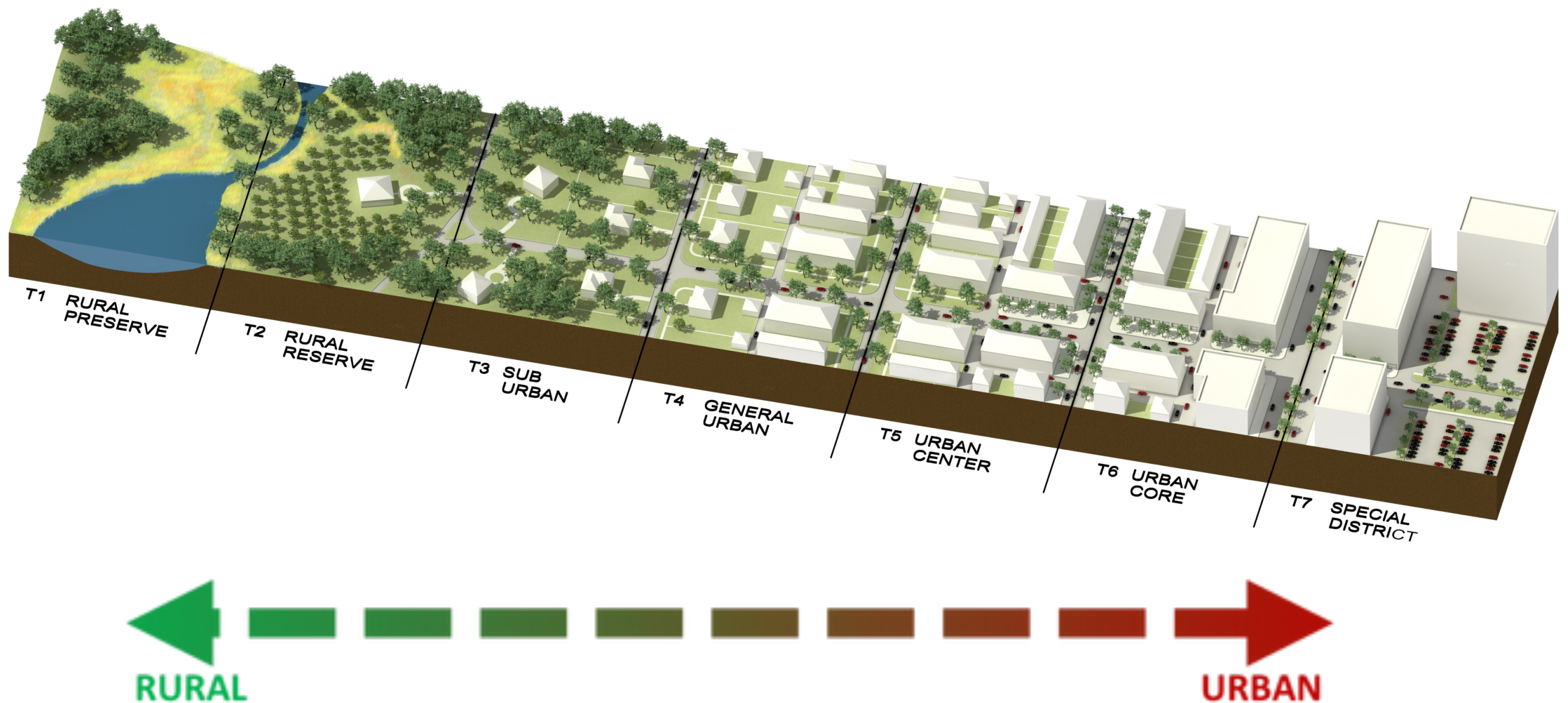
*“So-called 'sustainable development'... is meaningless drivel.”*

James Lovelock

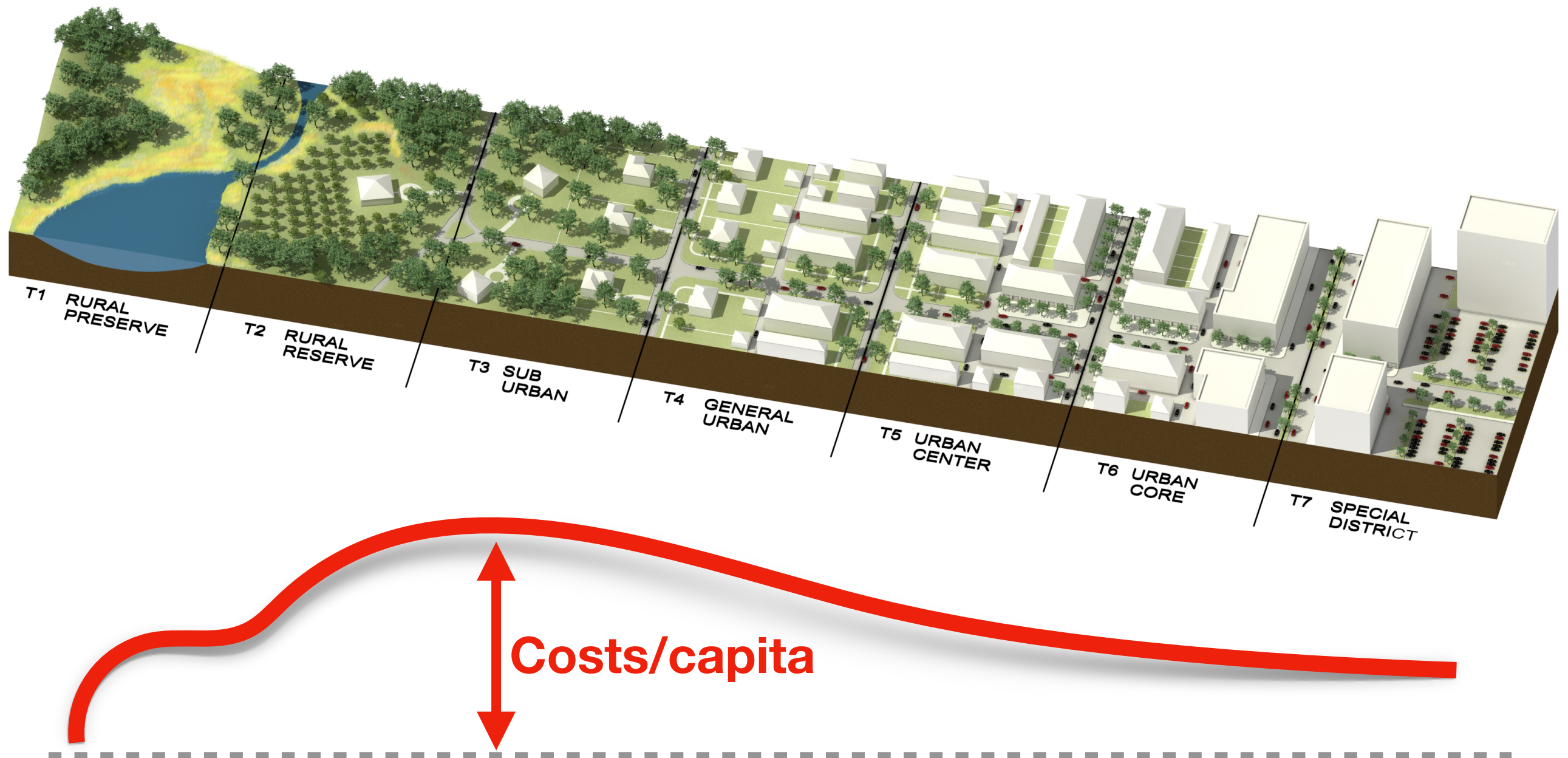




# Development Density

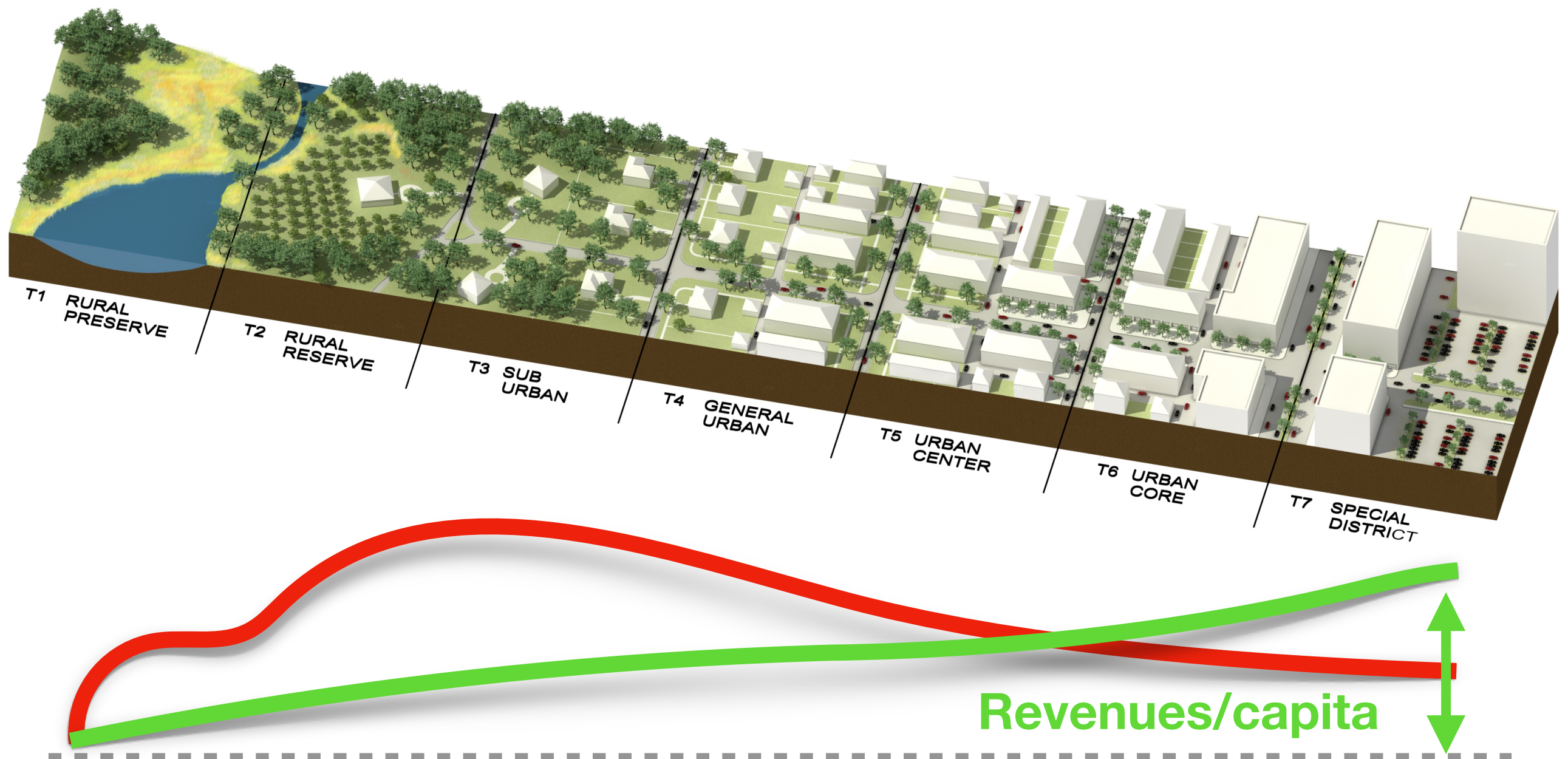


# Development Density





# Development Density

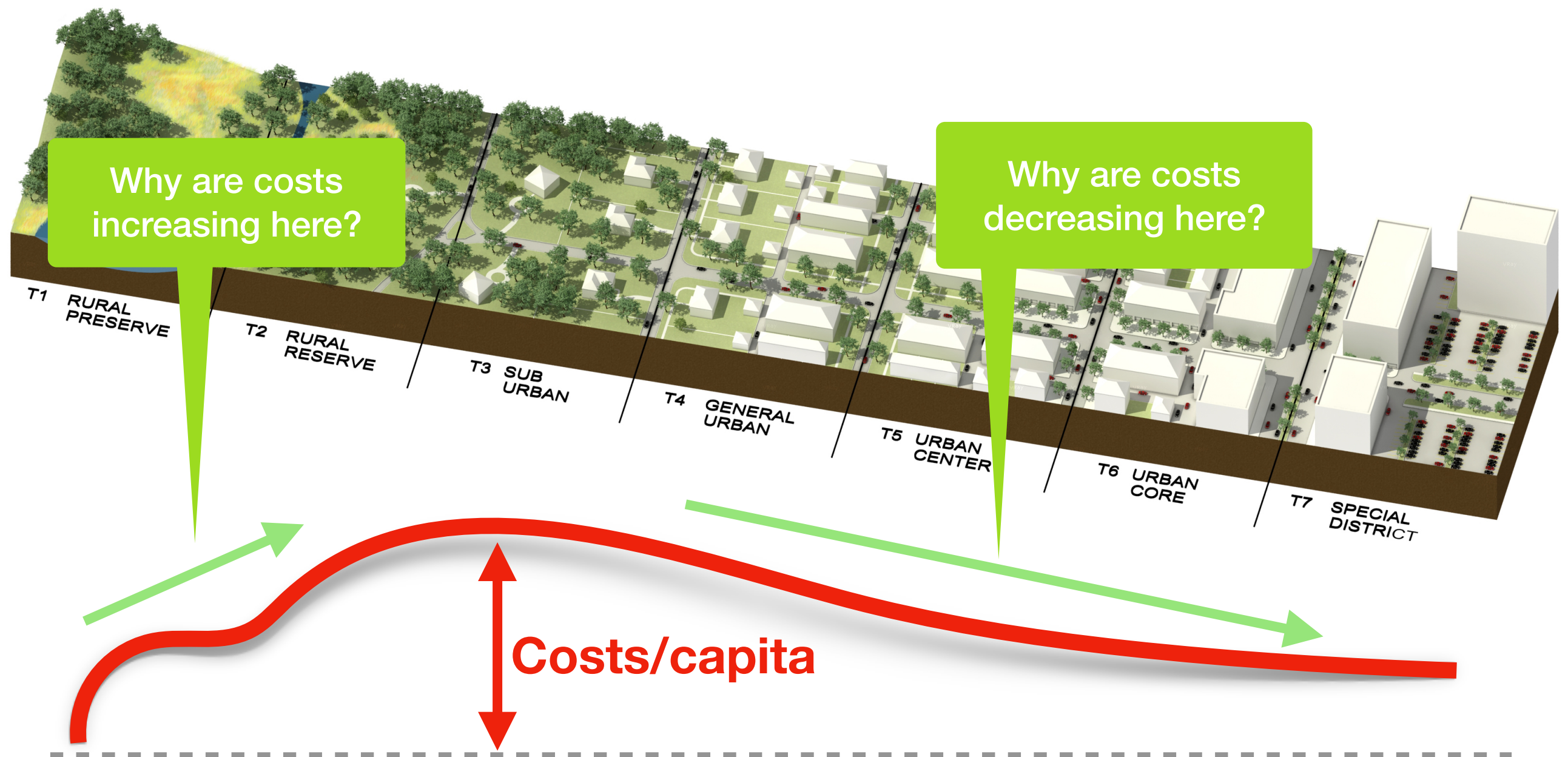




# Balanced Growth



# Development Density





# Economics

*“Economics is a choice between alternatives all the time. Those are the trade-offs.”*

Paul Samuelson





# Economics of Density

## Part 1

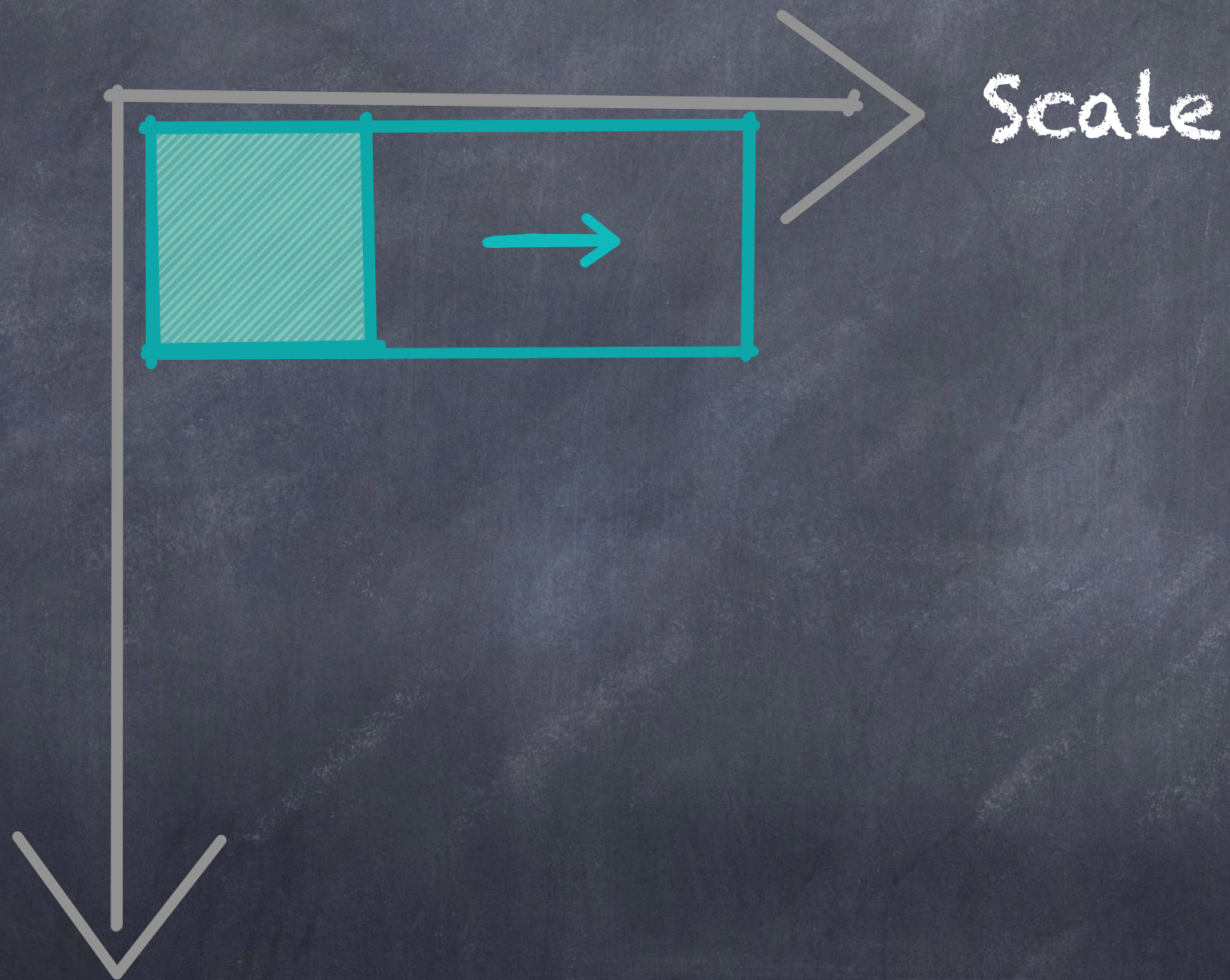


# Municipal Finance: Principles

- Demand for municipal services is unlimited
- Non-residential development subsidizes services to people – residential development.
- Growth will always increase costs
- Municipalities have a limited financial toolbox



# Economies of Scale

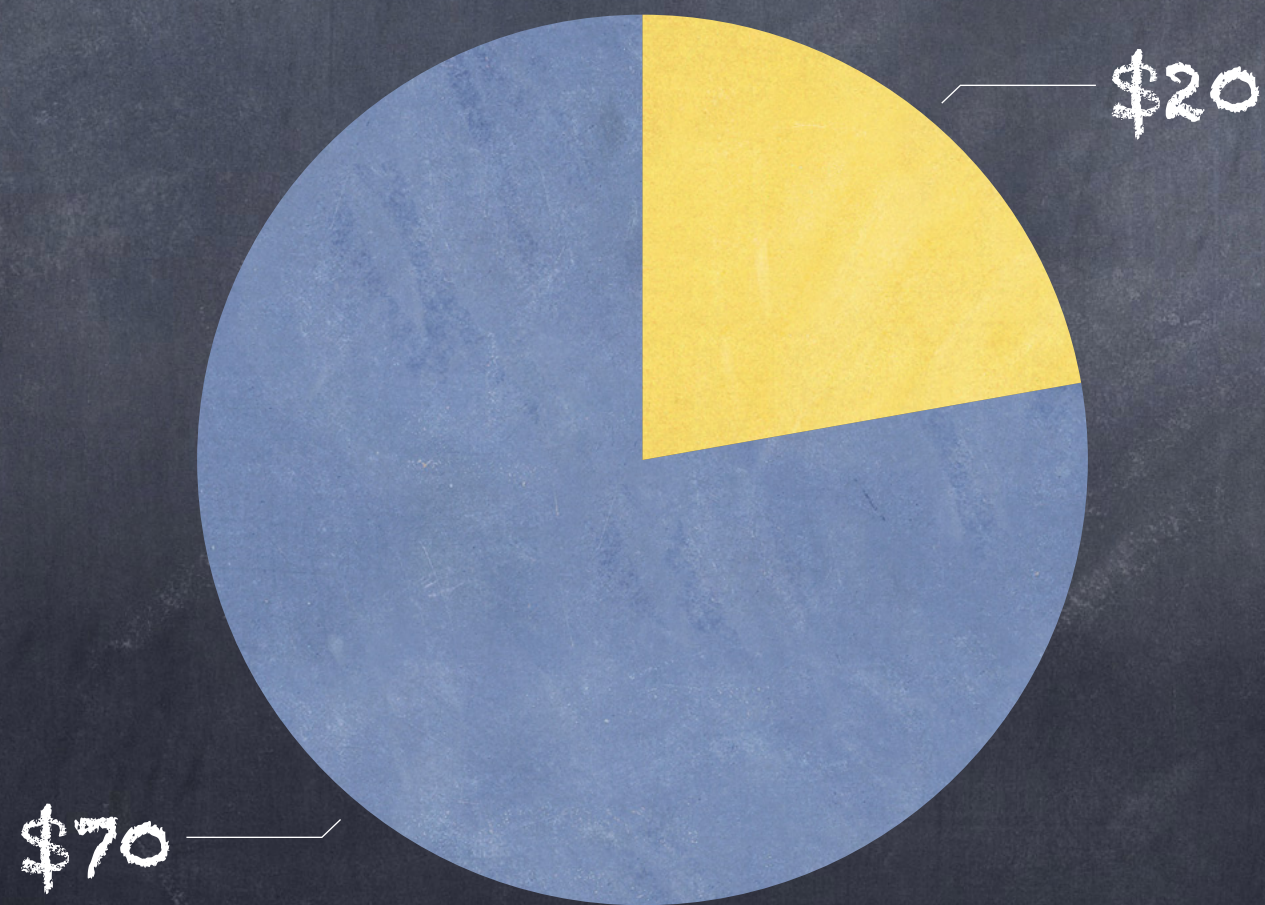




# Service: Cost Structure

● Fixed Costs      ● Variable Costs

Output/Demand = 100



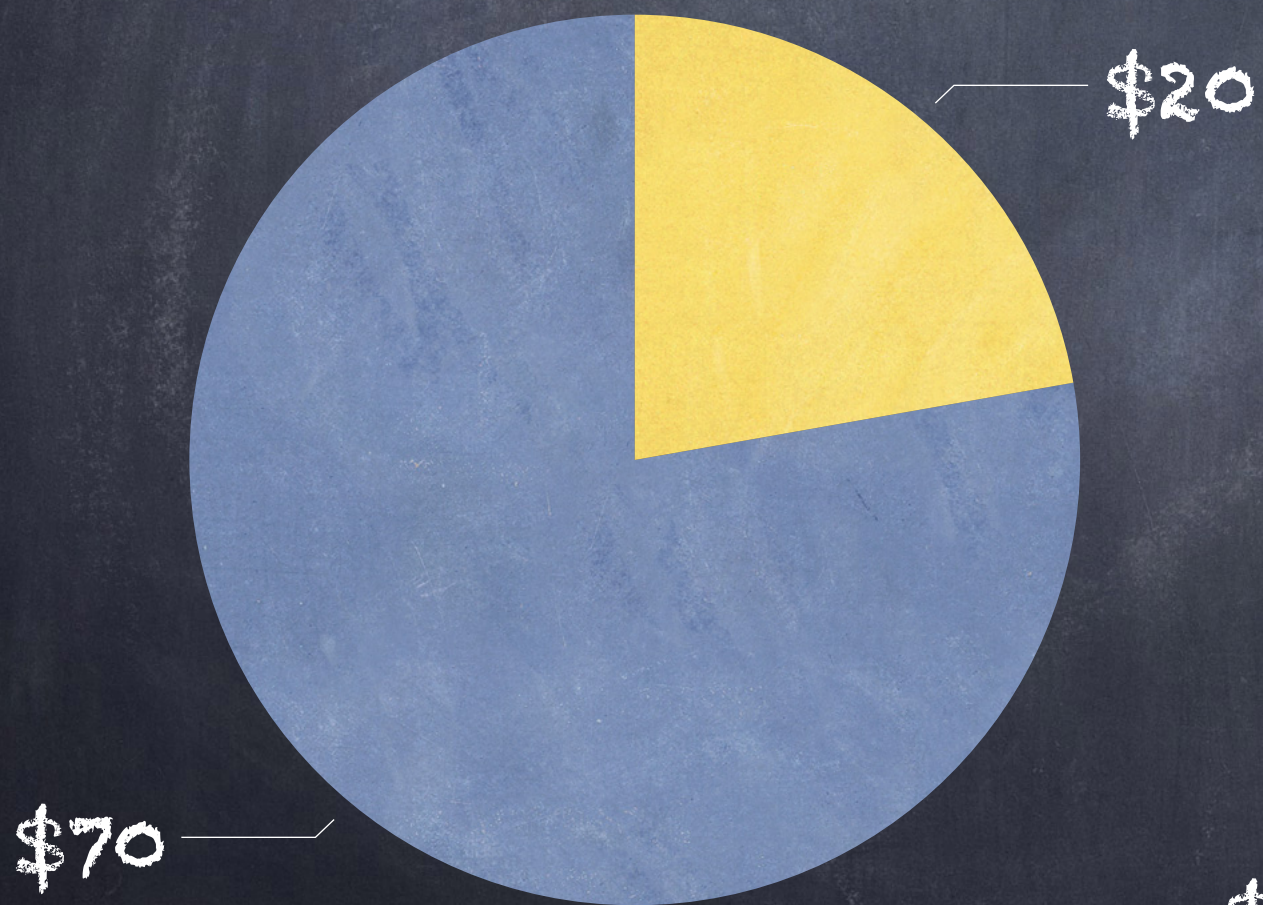


# Service: Cost Structure

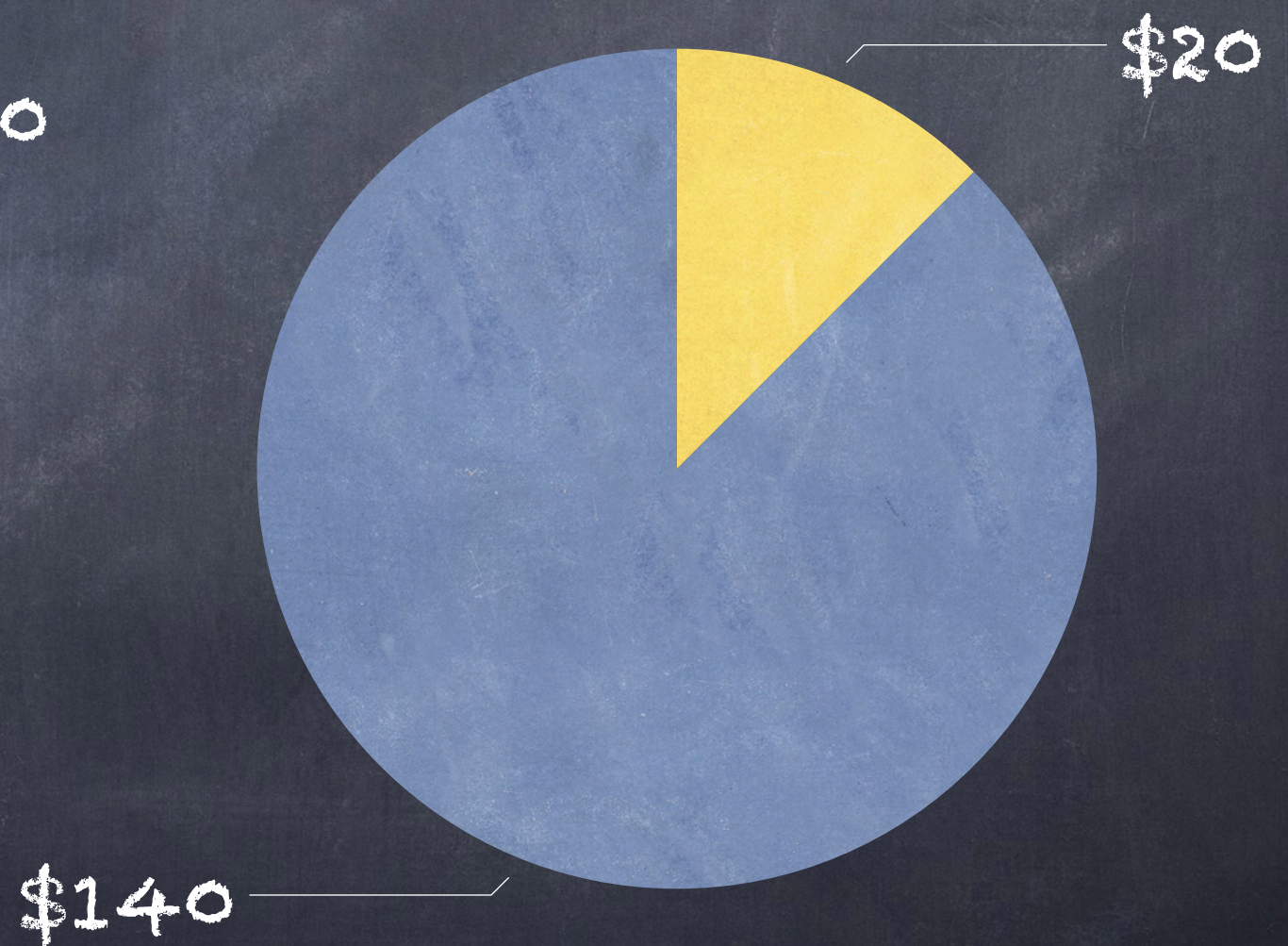
● Fixed Costs

● Variable Costs

Output = 100



Output = 200





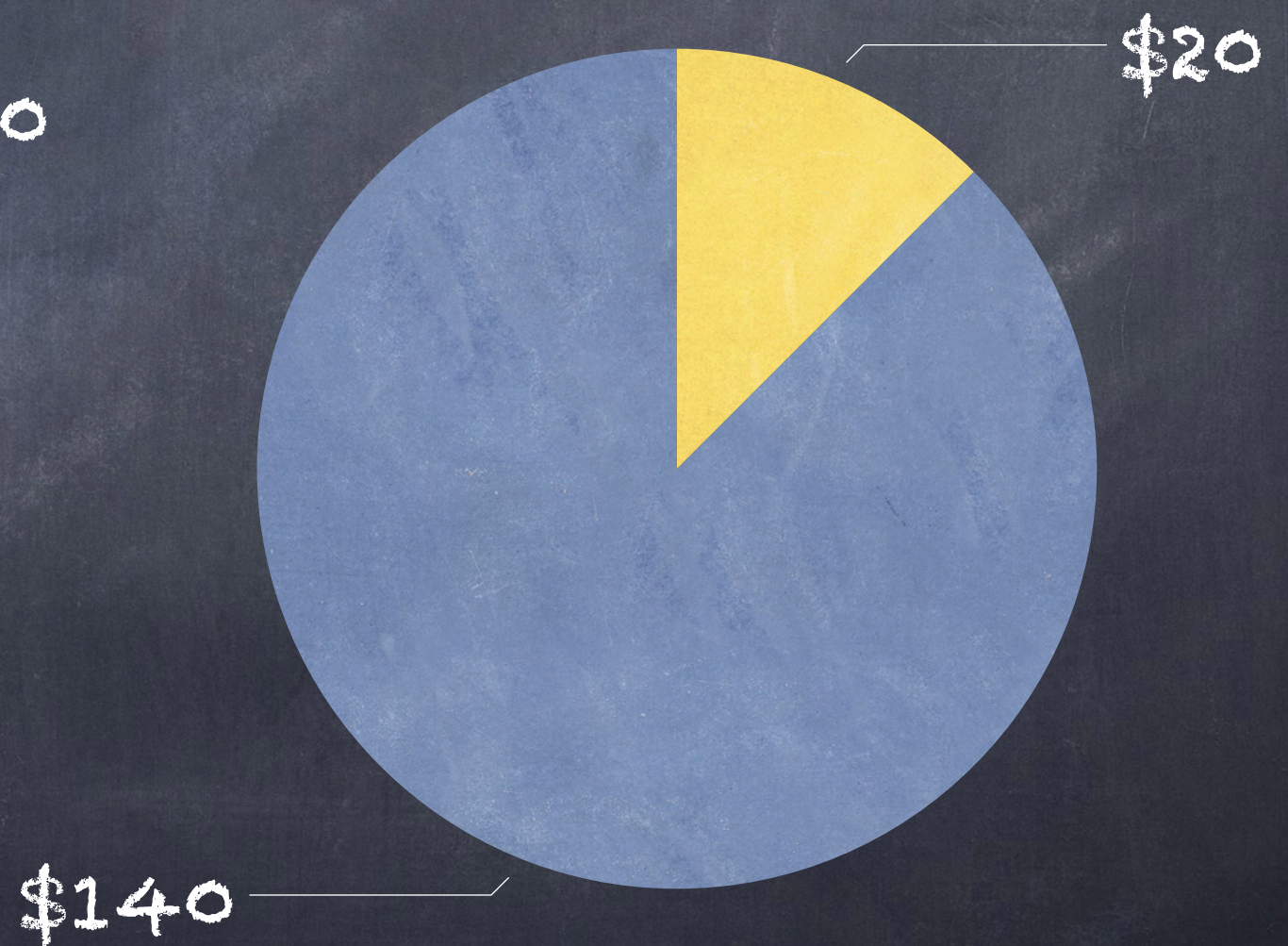
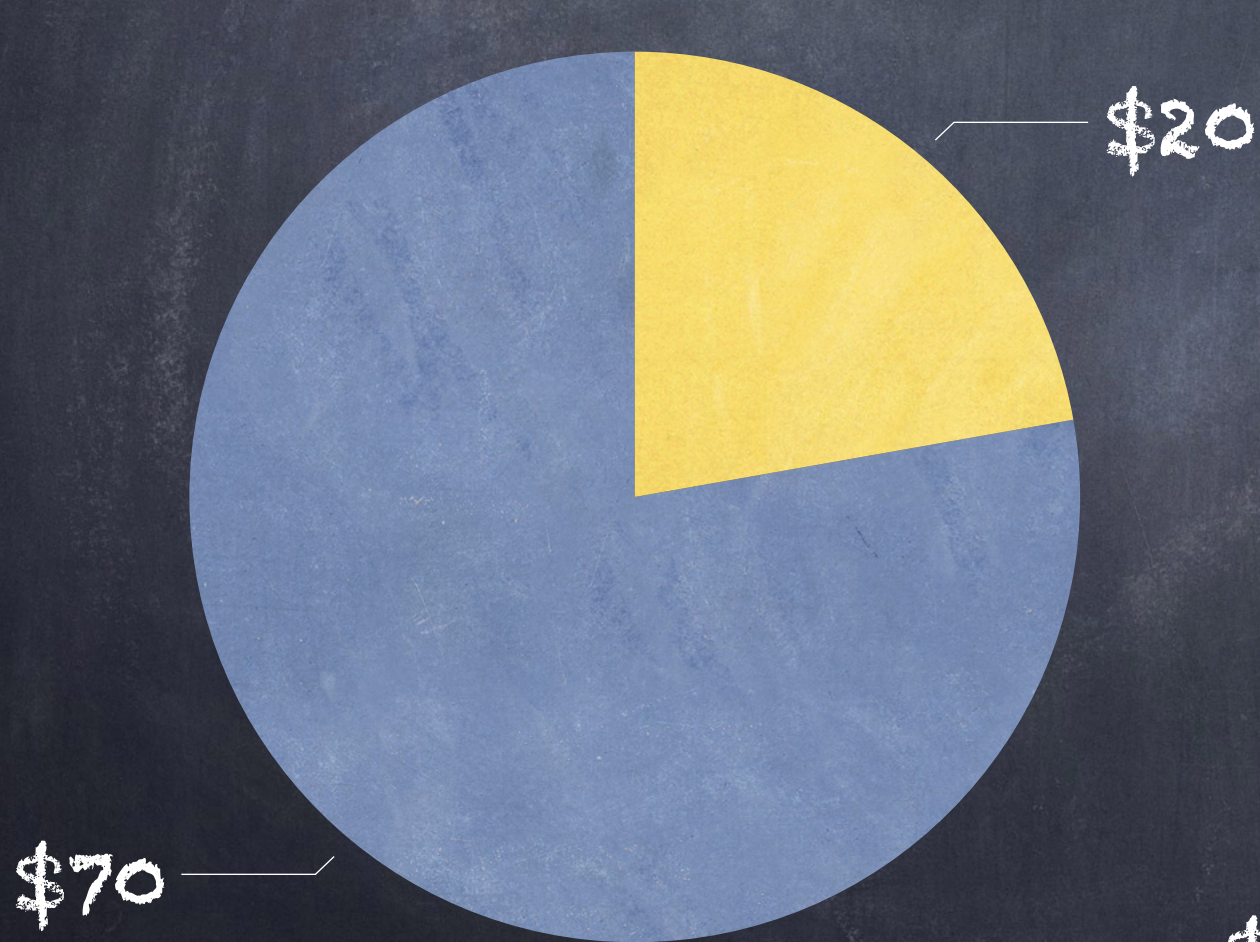
# Service: Cost Structure

● Fixed Costs

● Variable Costs

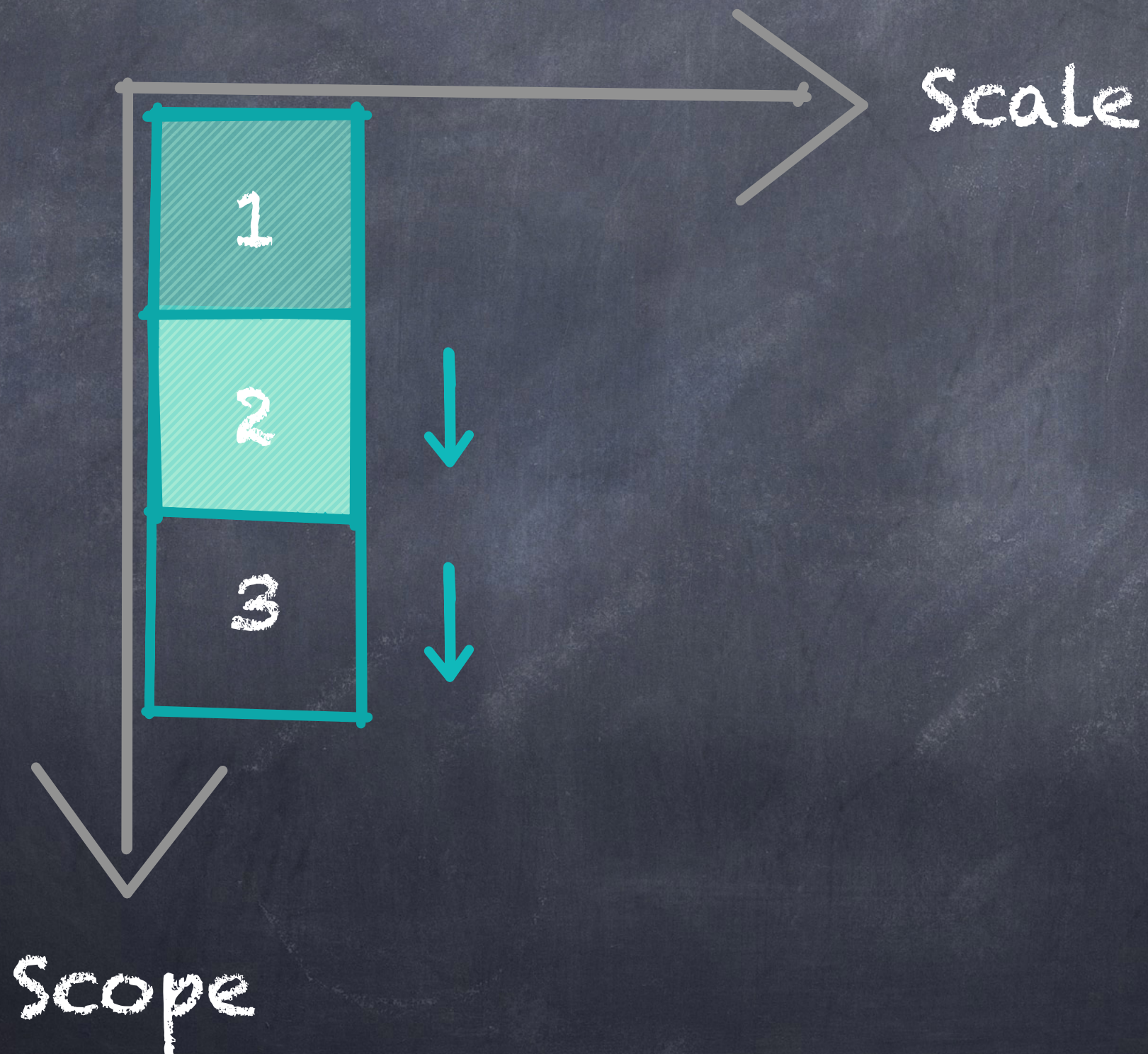
$$$/Output = \$0.90$$

$$$/Output = \$0.80$$



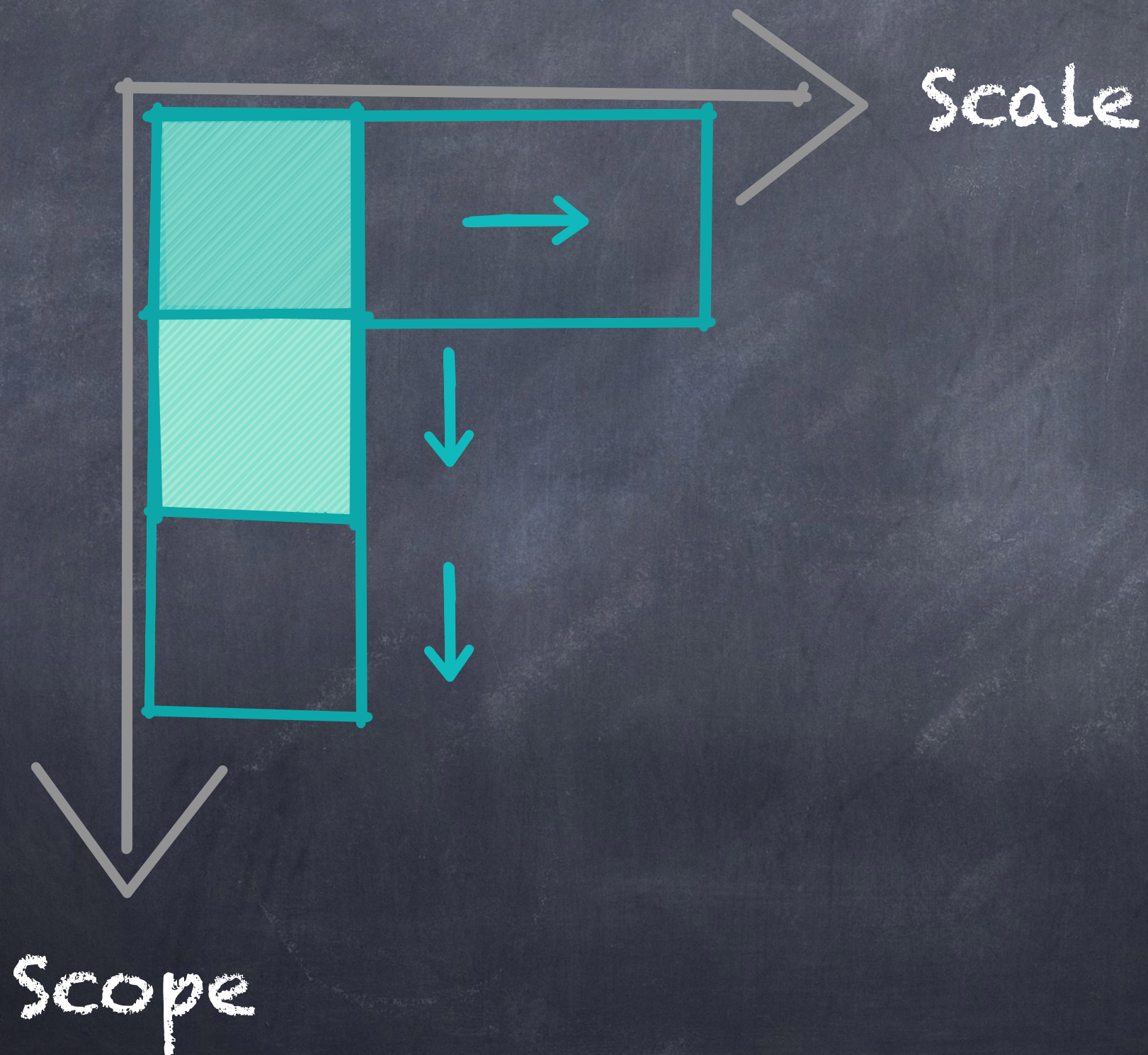


# Economies of Scope



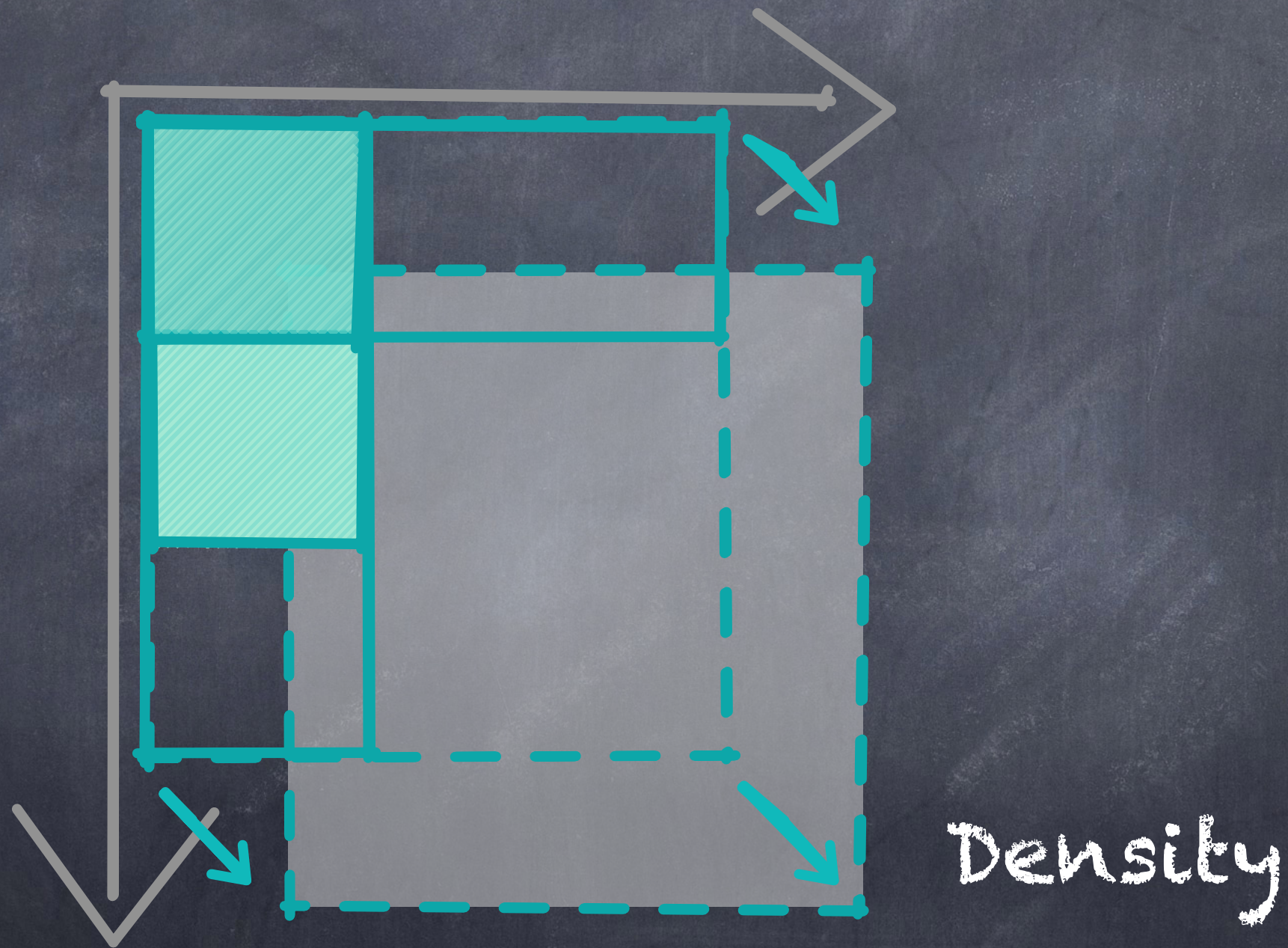


# Economies of Scale & Scope





# Economies of Density





# Economies of Density

- Cost savings from reduced distance and shorter linear infrastructure.
- Increased utilization for some services.
- Revenues increase, but at a decreasing rate.



# Urban Density Economics: Example - Fire

- Fire Station & Response times
- Station Cost = \$10 million
- Operating Exp = \$2 million per year
- Population Served = 15,000
- Density = 25 units/urha

8-12 minutes

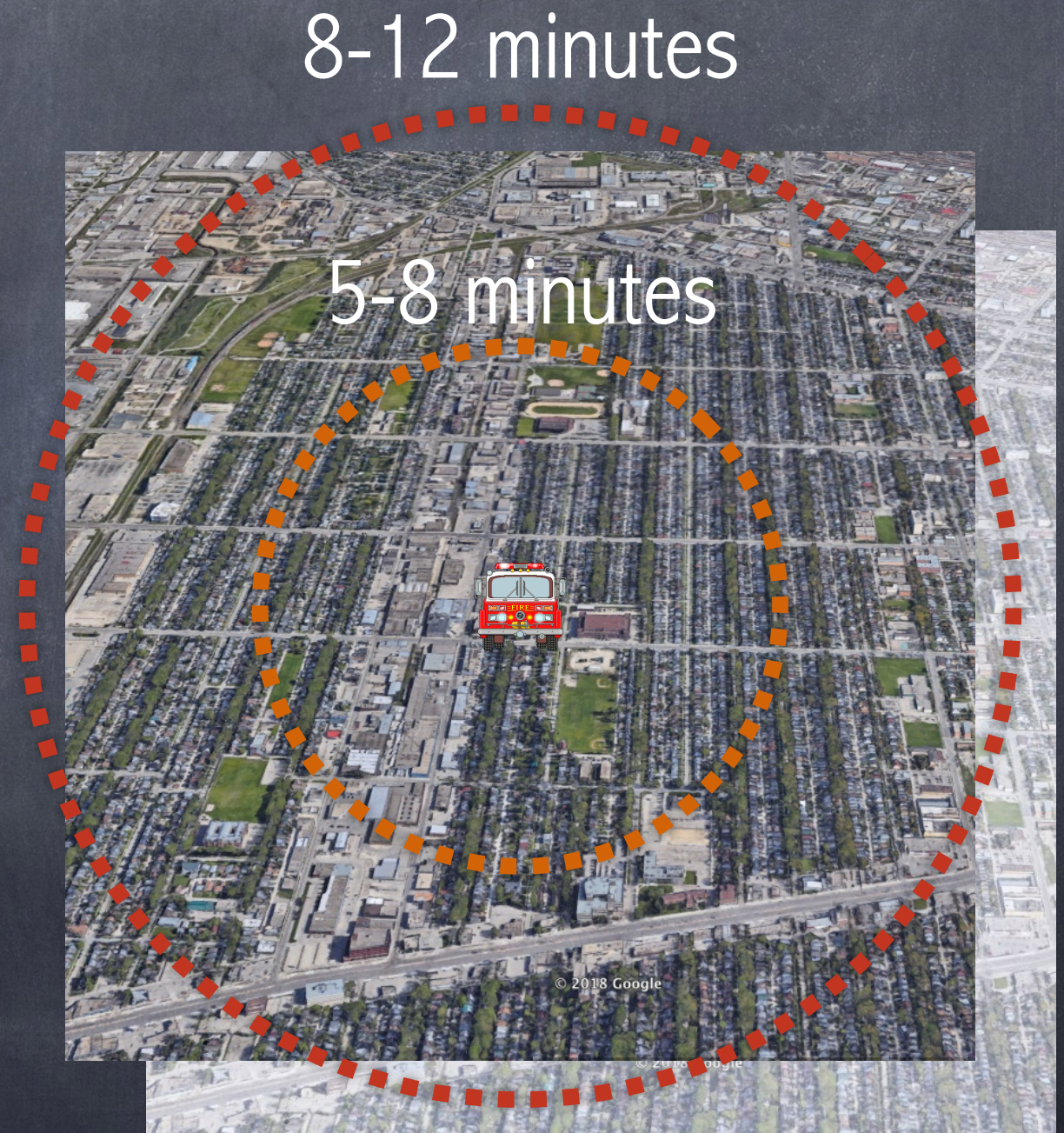
5-8 minutes





# Urban Density Economics: Example - Fire

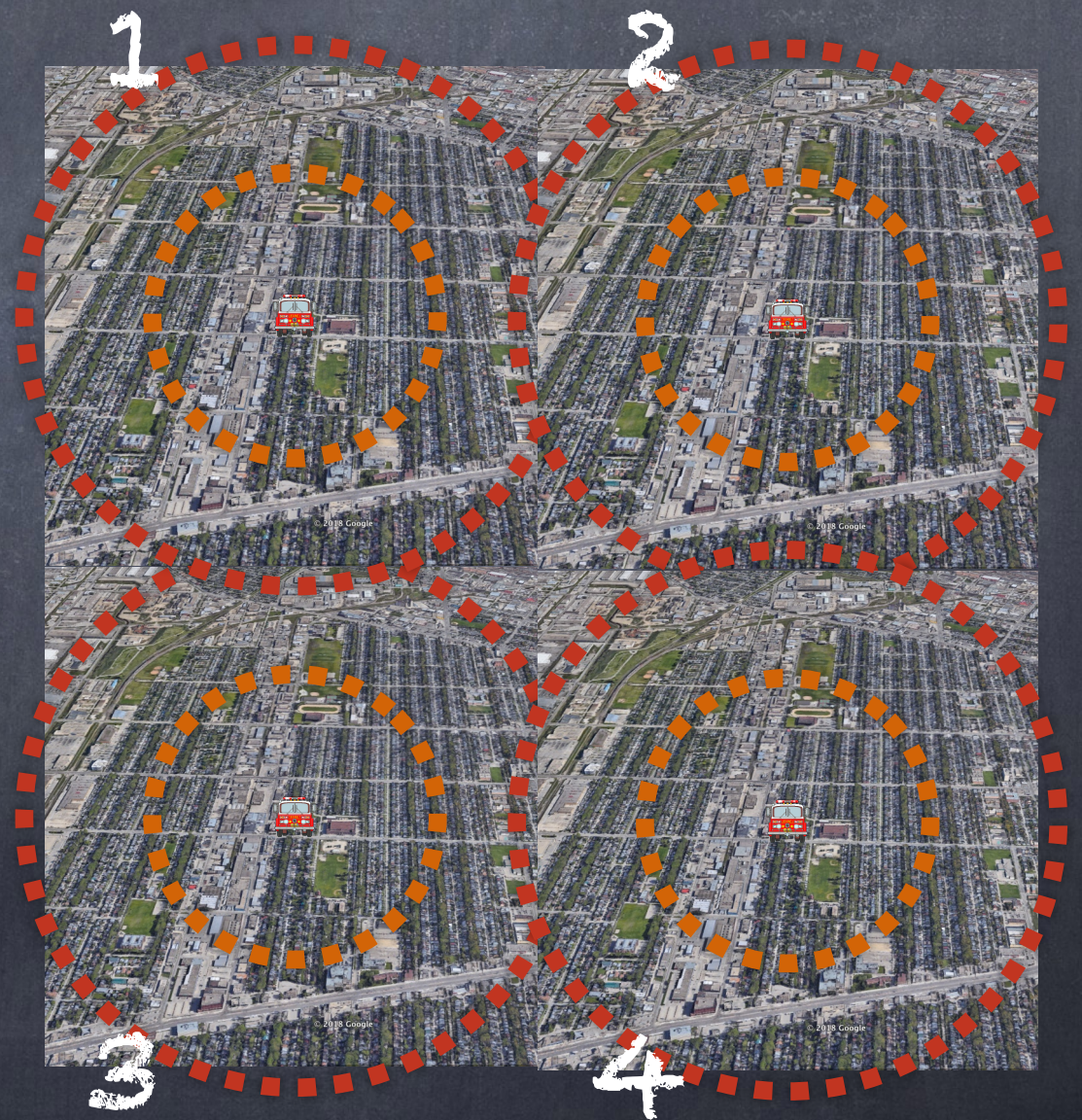
- Double density = 50 du/hrha
- Larger Station +\$2.5 million (+25%)
- Operating Expenditures + \$0.6 million (+30%)
- Assessment/Tax Revenues + 80%





# Urban Density Economics: Example – Fire

- Replicating this development 2 or 3 or 4 times will result in some economies of scale.
- Spreading overheads over 4 Fire Stations may save 10–15% per year in operating expenditures.
- No (or Little) savings in capital expenditures.





# Increasing Density:

## 30 to 35 du/ha

- More dwelling units – more people
- 5%–15% more assessment
- 10% – 20% less linear infrastructure
- Increased utilization of fixed location facilities (e.g. recreation)
- Economies of density



# Density Economics

- Applies to facilities with service areas: parks, emergency services, recreation, storm water mgmt.
- Applies to linear infrastructures: roads, transit, water, wastewater.



# Economics of Intensification

## Part 2



# Increasing Density: Mature Area Infill

- Municipal tax revenue increase is straightforward
- Cost impacts circumstance dependent:
  - Service cost impacts?
  - Infrastructure upgrade impacts?





**CALL TO  
ACTION!**

**Destination**

“If you don’t know where you are going, any road will get you there.”



# Urban Sprawl

Spatial segregation of land uses results in inefficient use of land resources.

Distance increases need for travel and increased commuter time.

Imposes costs on the young, elderly and low income households who cannot drive (or afford to).

Reduces access to community services such as recreation, parks and culture.

Most of all - it increases costs!





# Savings Due to Density

Building a neighbourhood of townhouses rather than single family homes:

- Reduce cost of building roads/streets by 33%.
- Reduce road maintenance costs by more than 50%.
- Reduces the cost of utility infrastructure (water, wastewater, storm) by over 50%.
- Reduce utility maintenance costs by 30%.





# Mixed Use

A comparison of a 300+ ha conventional development with an alternative model of compact development generated significant private and public sector cost savings.

Over a 75 year period the alternative compact development plan resulted in annual savings of 8.8% including capital costs, life cycle costs and operating costs.

Most of these cost savings were in the public sector.





# The Plan

*“By failing to  
prepare, you are  
preparing to fail.”*

Benjamin Franklin





# Financial Planning Toolbox

What do you already have and what will you need to take control of your financial future.







# Power of Approval

Approval of all planning changes gives the municipality the power to gather information and apply conditions of approval that are in the best interests of the community.

This can, and should, include an analysis of the financial implications of the plan.



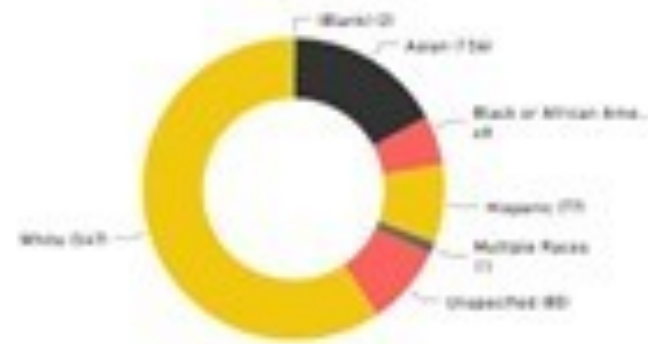
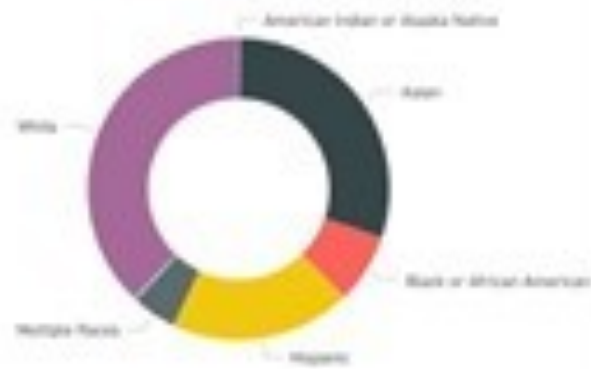
# New MGA

The New MGA provides municipalities with new responsibilities and powers:

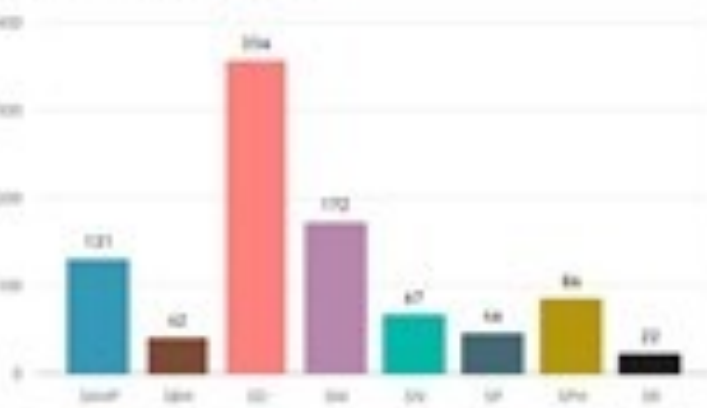
- Required to prepare a 3 year operating budget and 5 year capital plan and update these annually.
- Allows for the collection of development levies for community recreation facilities; police stations; fire halls; and libraries.



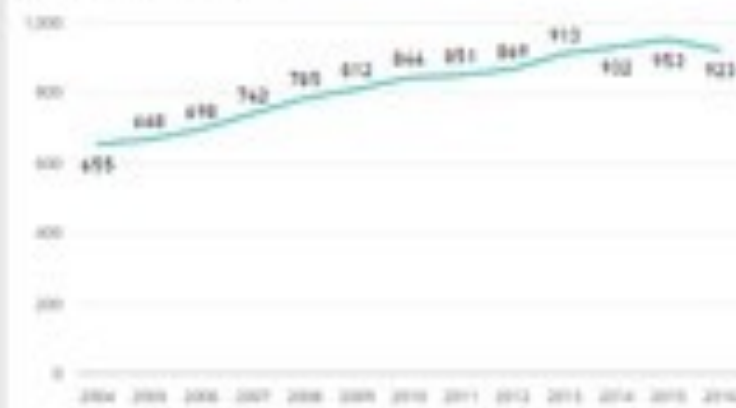




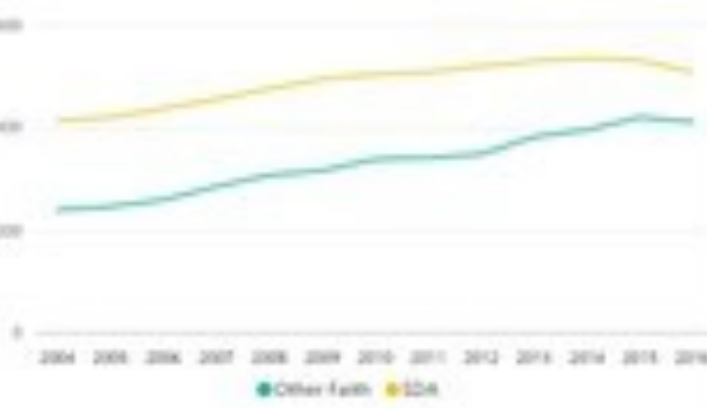
Faculty Appointments by School  
FALL 2014



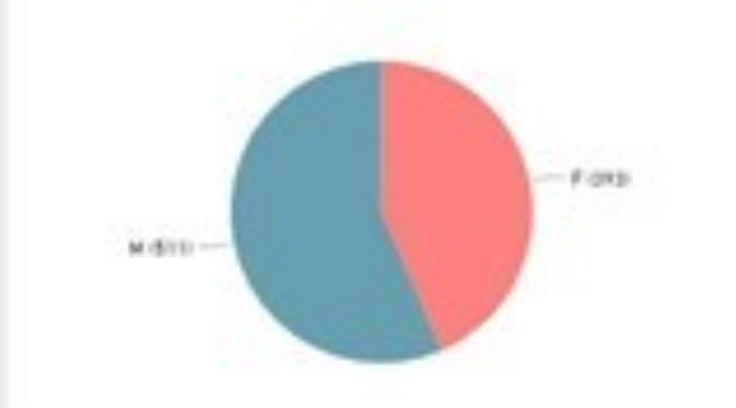
Faculty Appointment Trend  
FALL 2004 - 2014



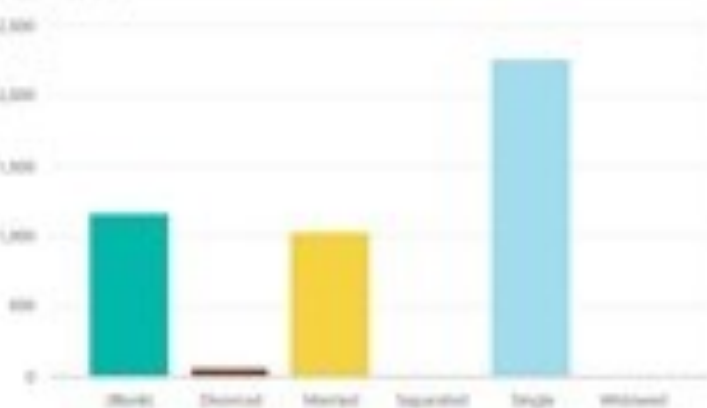
Faculty Trend by Faith  
FALL 2014



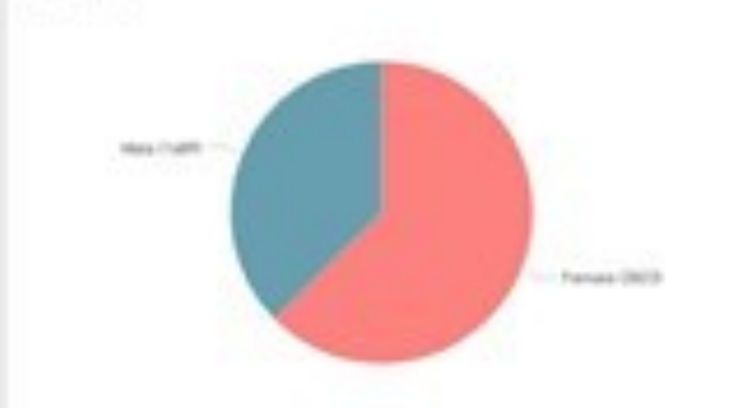
Faculty Gender  
FALL 2014



Student Marital Status  
FALL 2014



Student Gender  
FALL 2014



# Analytical Tools

Analytical tools to complete the financial impact analysis are readily available:

- Forecast of growth
- Multi-year budget tools
- Fiscal impact analysis tools





# Plan Integration

Developing the financial/budget plan should not happen in isolation. Best results will occur when Strategic and Business planning is integrated with Financial Planning.



