

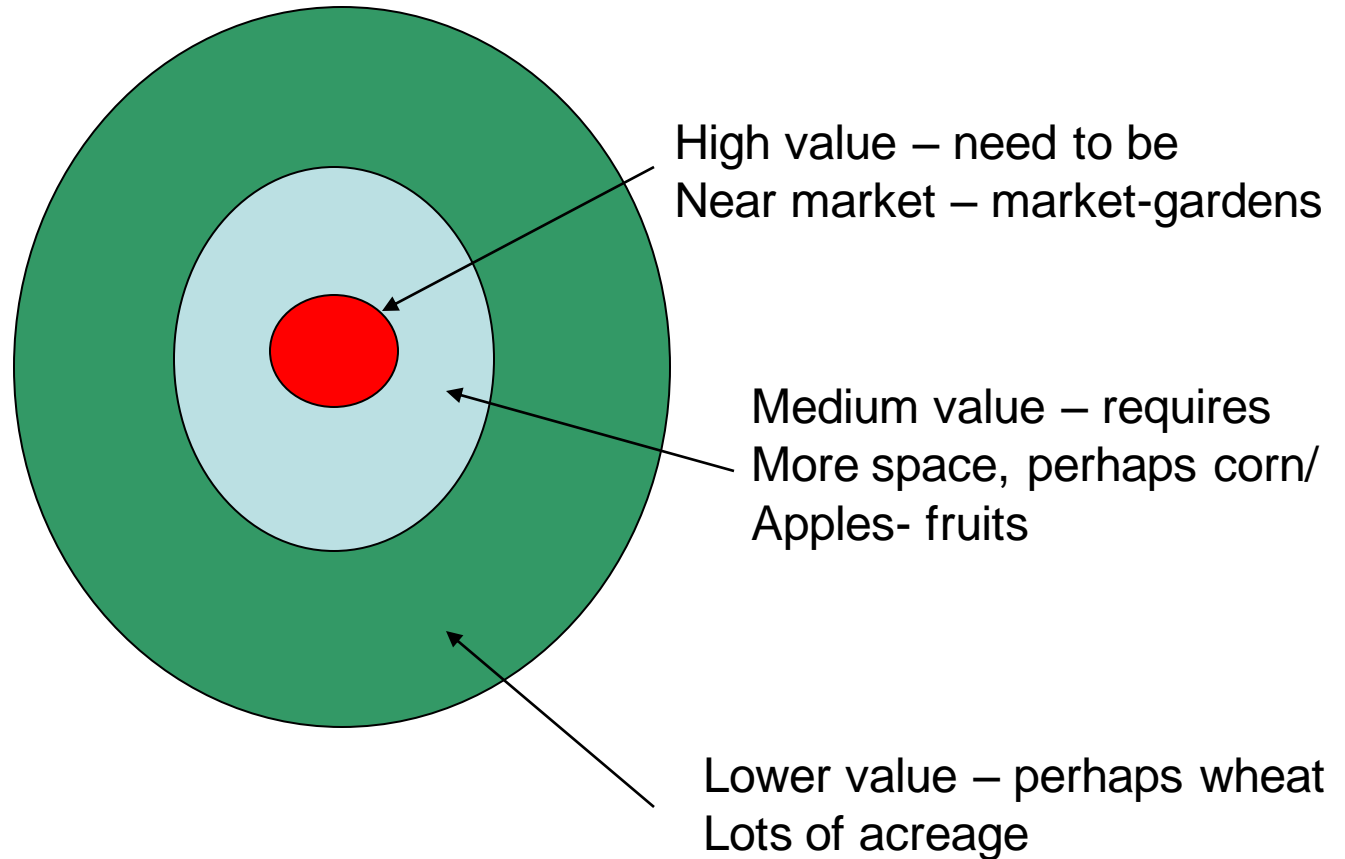
Planning an Intermodal Terminal

Dr. David Wilson
Geographer

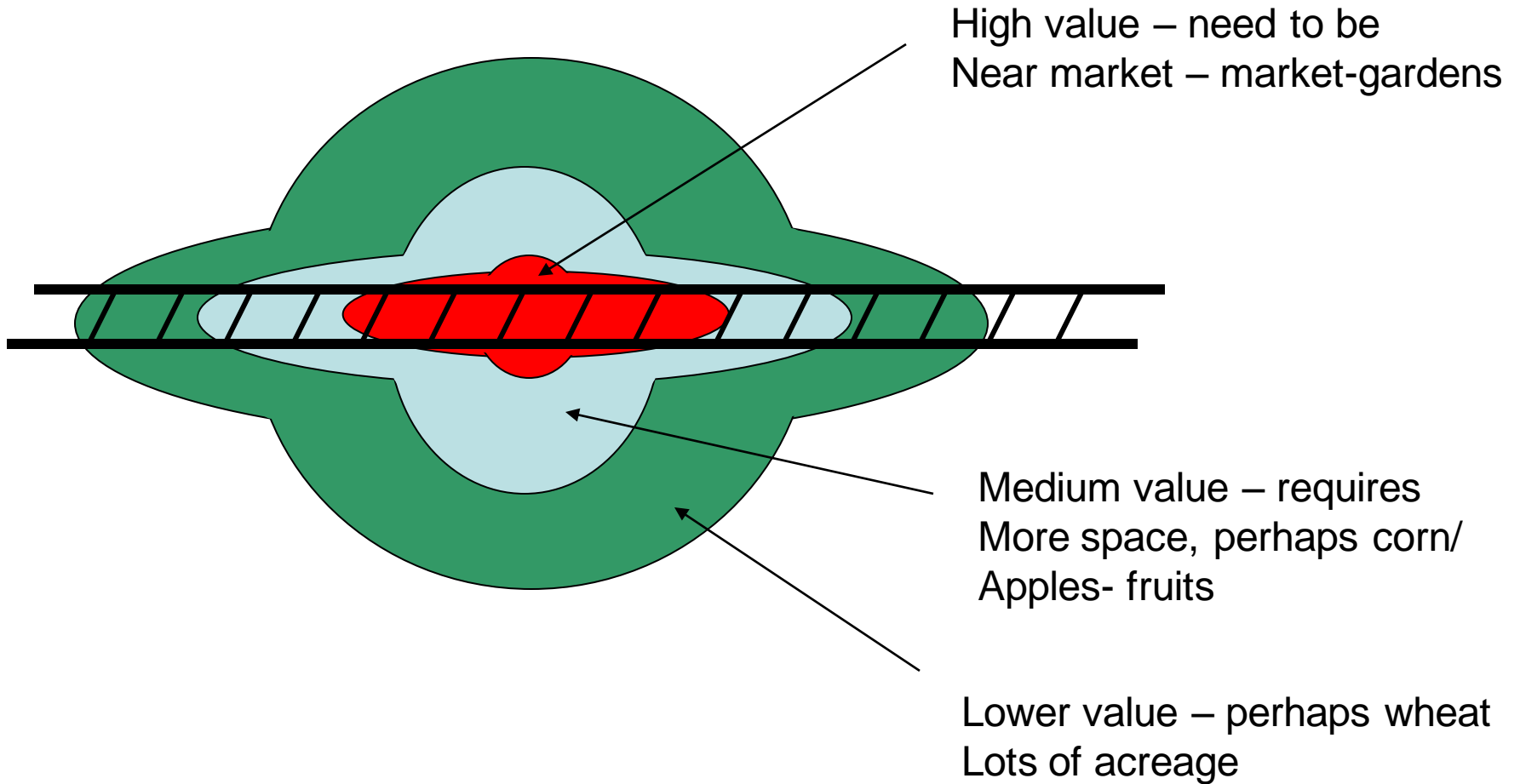
Locations in Space

- The fundamental ideas of economic geography began with Von Thunen who explained land use patterns in terms of the transport costs from a central place or market. Here we could read “Melbourne” for example.

Von Thunen – explaining agricultural patterns



The impact of transport

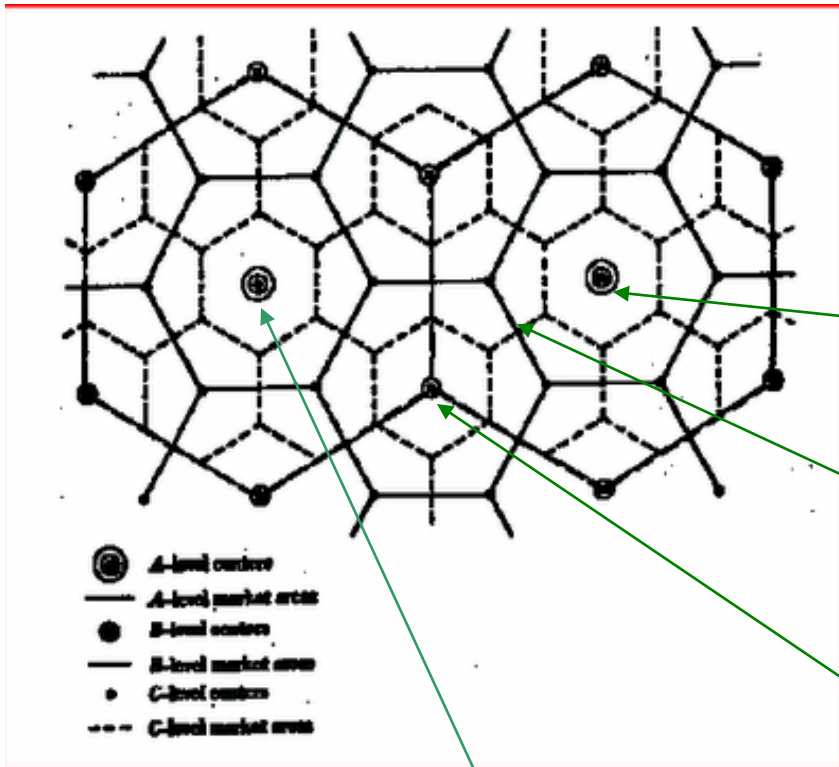


Central Place Theory

Christaller



WALTER CHRISTALLER
1893-1969



Sydney

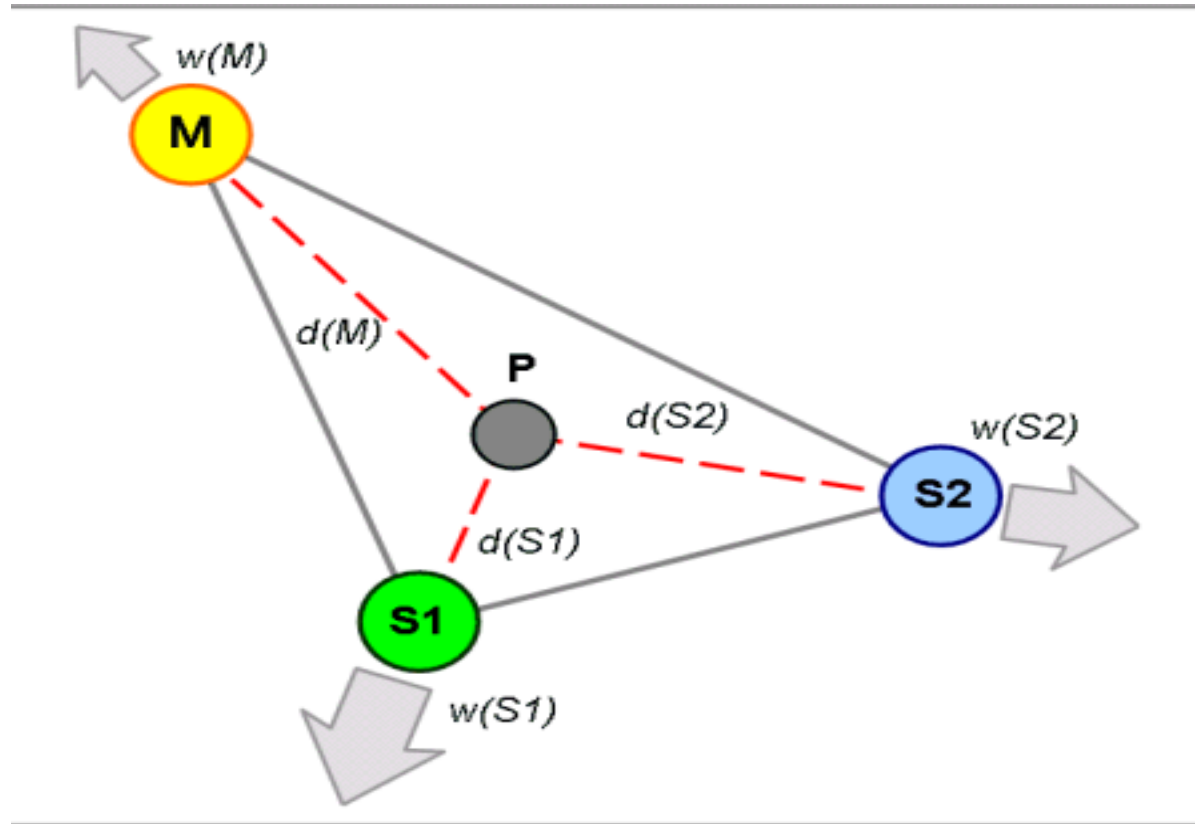
Albury/Wodonga

Shepparton

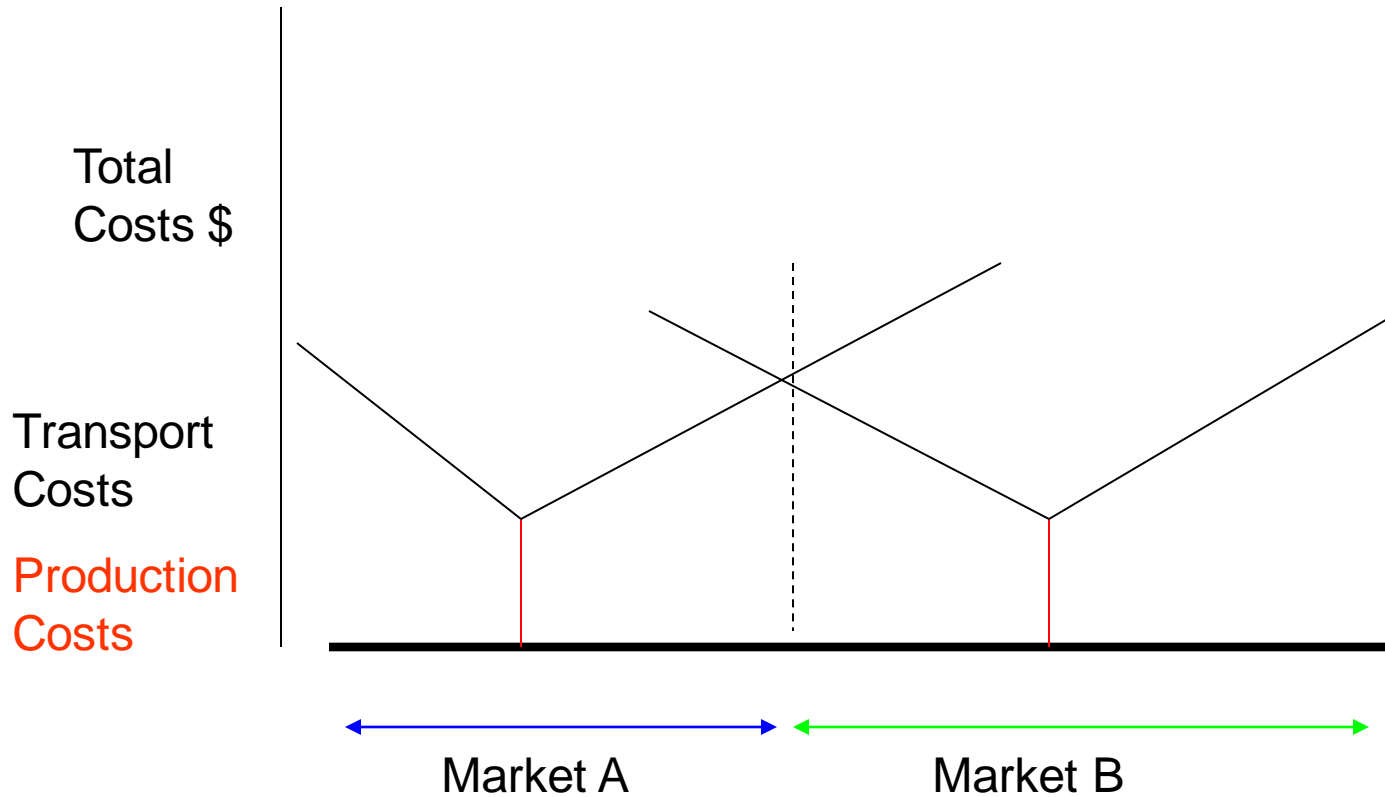
Melbourne

Weber Industrial Location

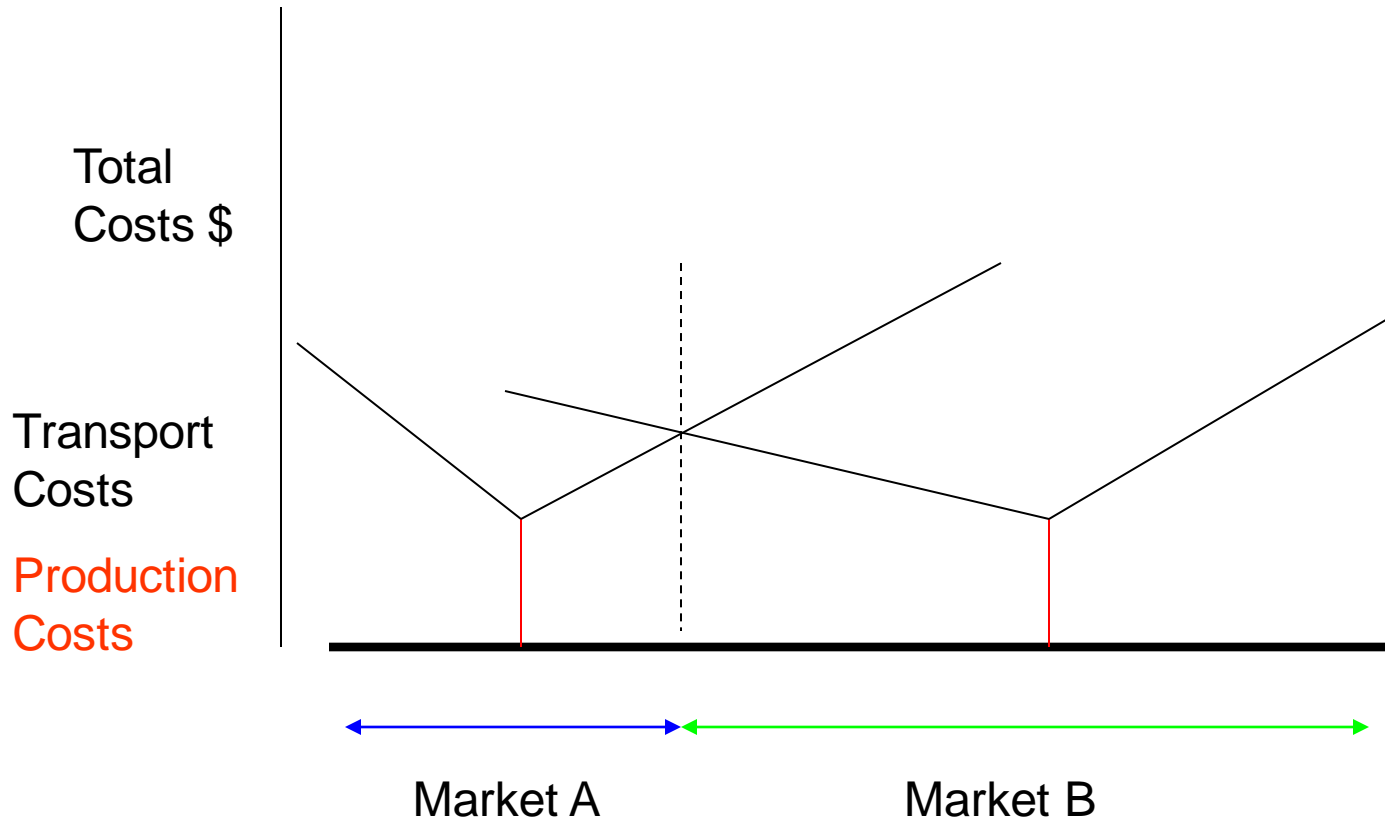
Alfred Weber



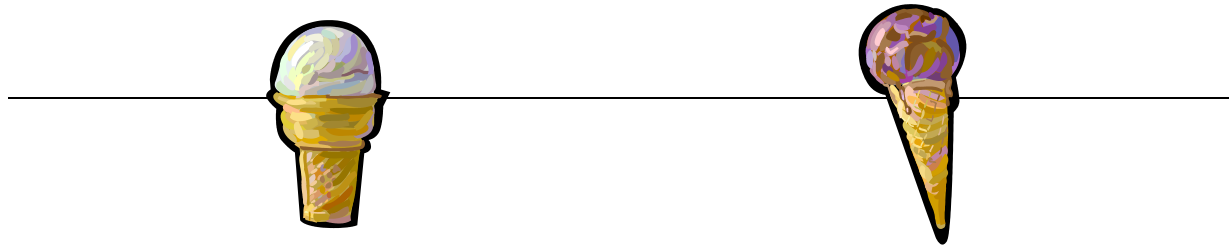
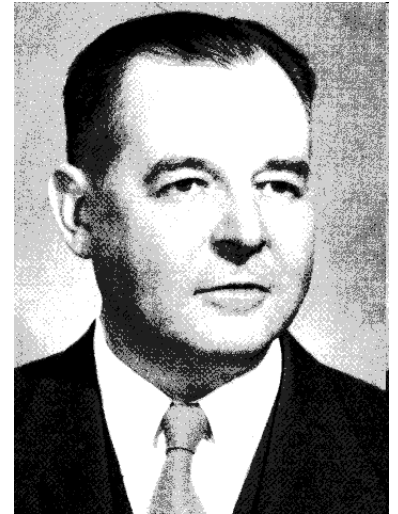
Markets and Transport Costs



Markets and Transport Costs



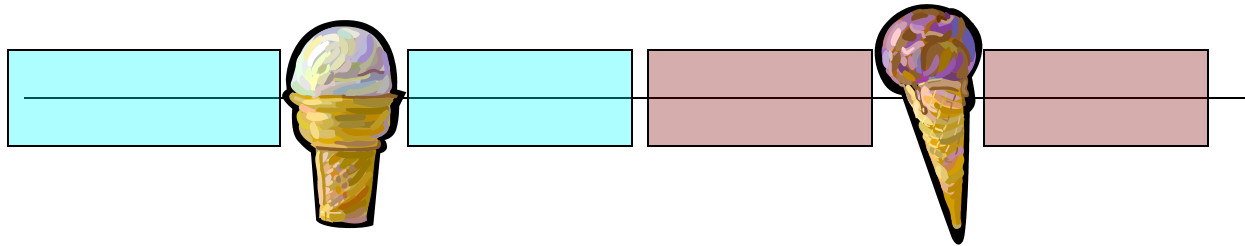
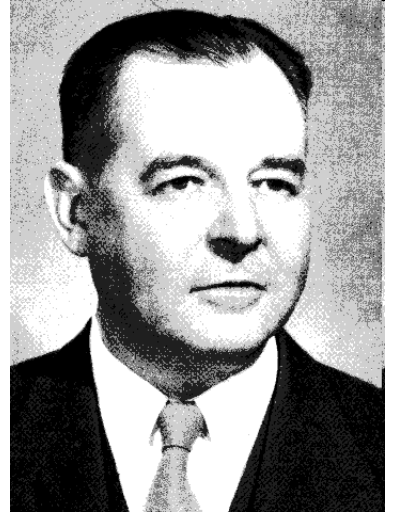
Harold Hotelling and Ice Creams on Jones's Beach



Assume beachgoers uniformly distributed along the beach and indifferent to the ice cream types

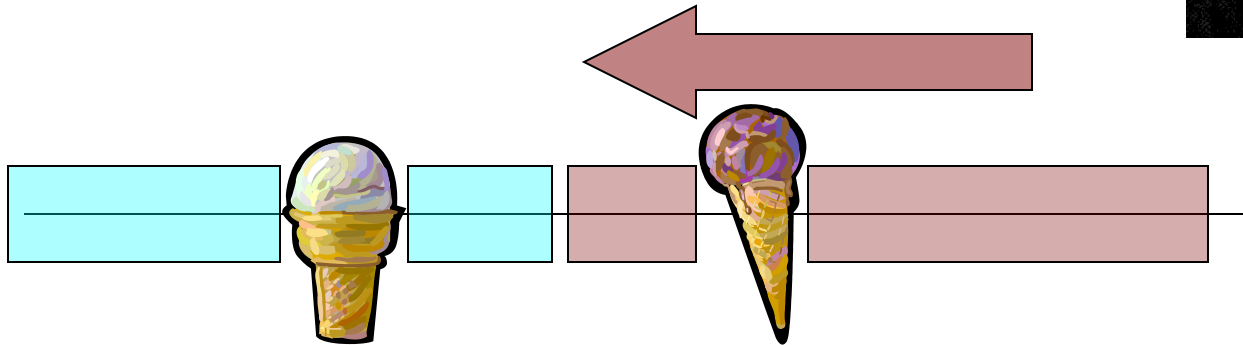
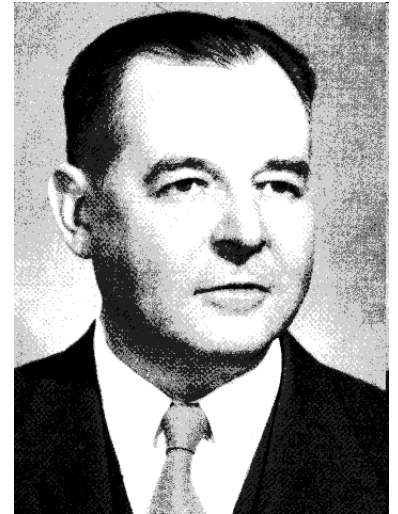
what will happen if the ice cream sellers want to maximise profit?

Harold Hotelling and Ice Creams on Jones's Beach



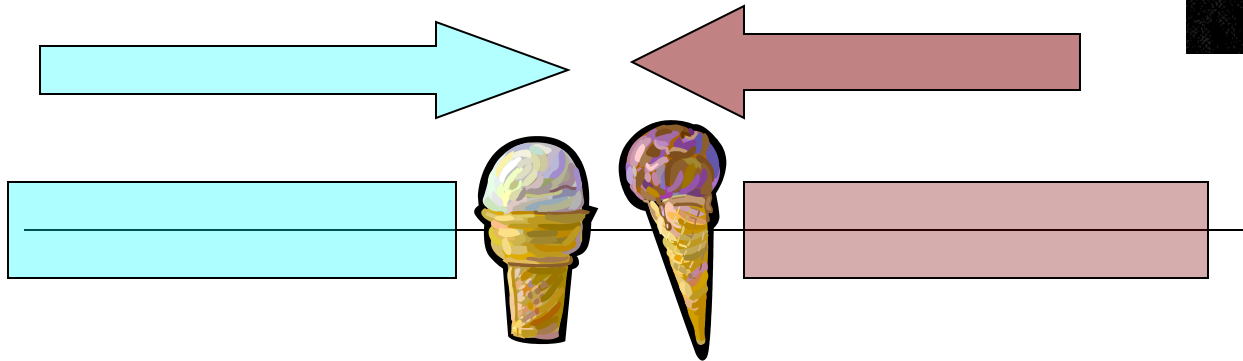
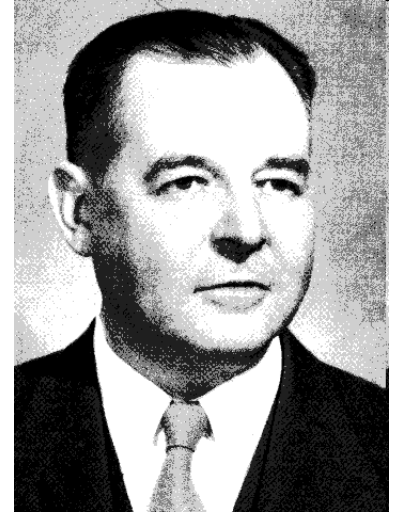
Assume beach goes uniformly distributed along the beach and indifferent to the ice cream types

Harold Hotelling and Ice Creams on Jones's Beach



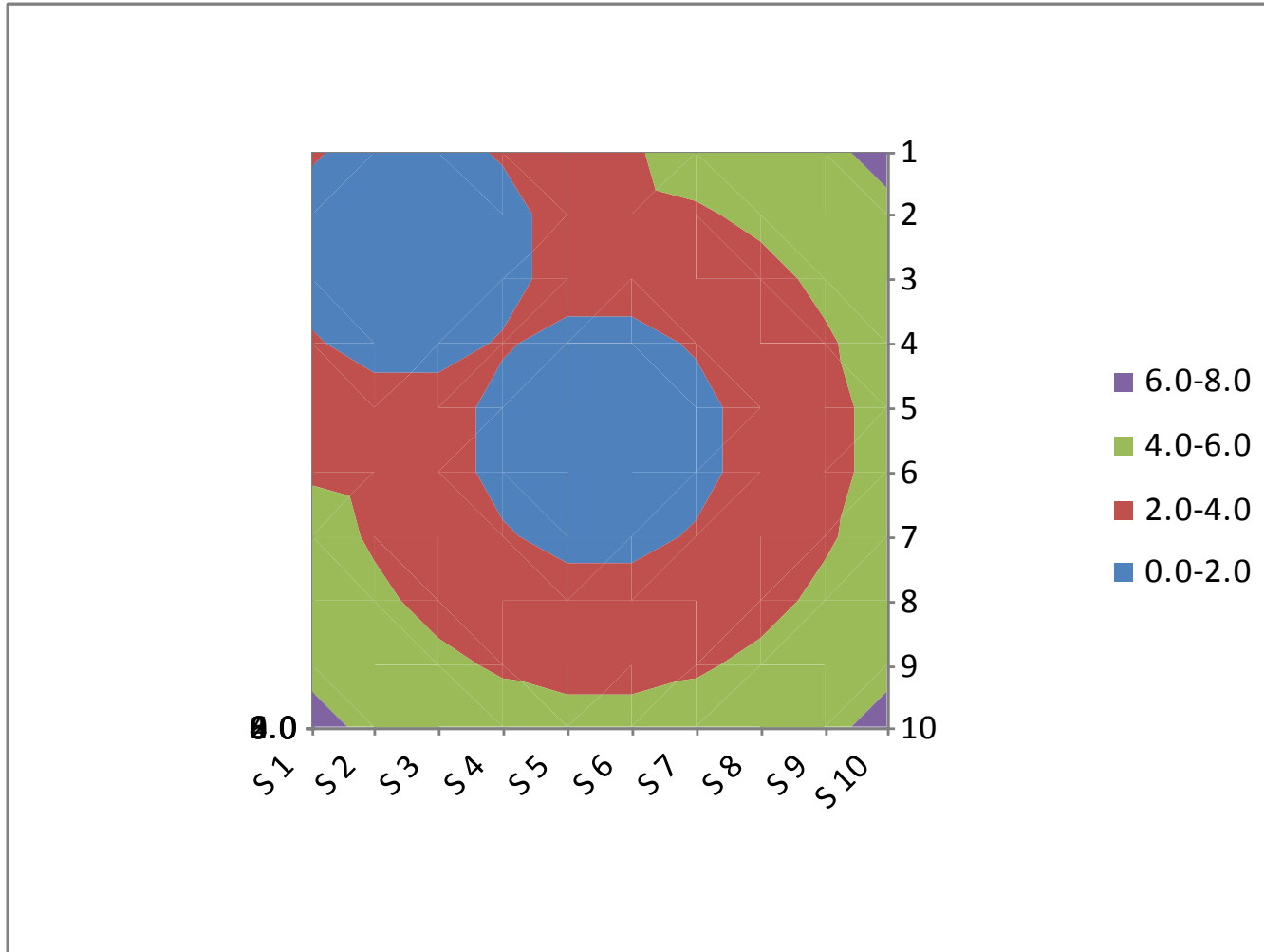
Assume beach goes uniformly distributed along the beach and indifferent to the ice cream types

Harold Hotelling and Ice Creams on Jones's Beach

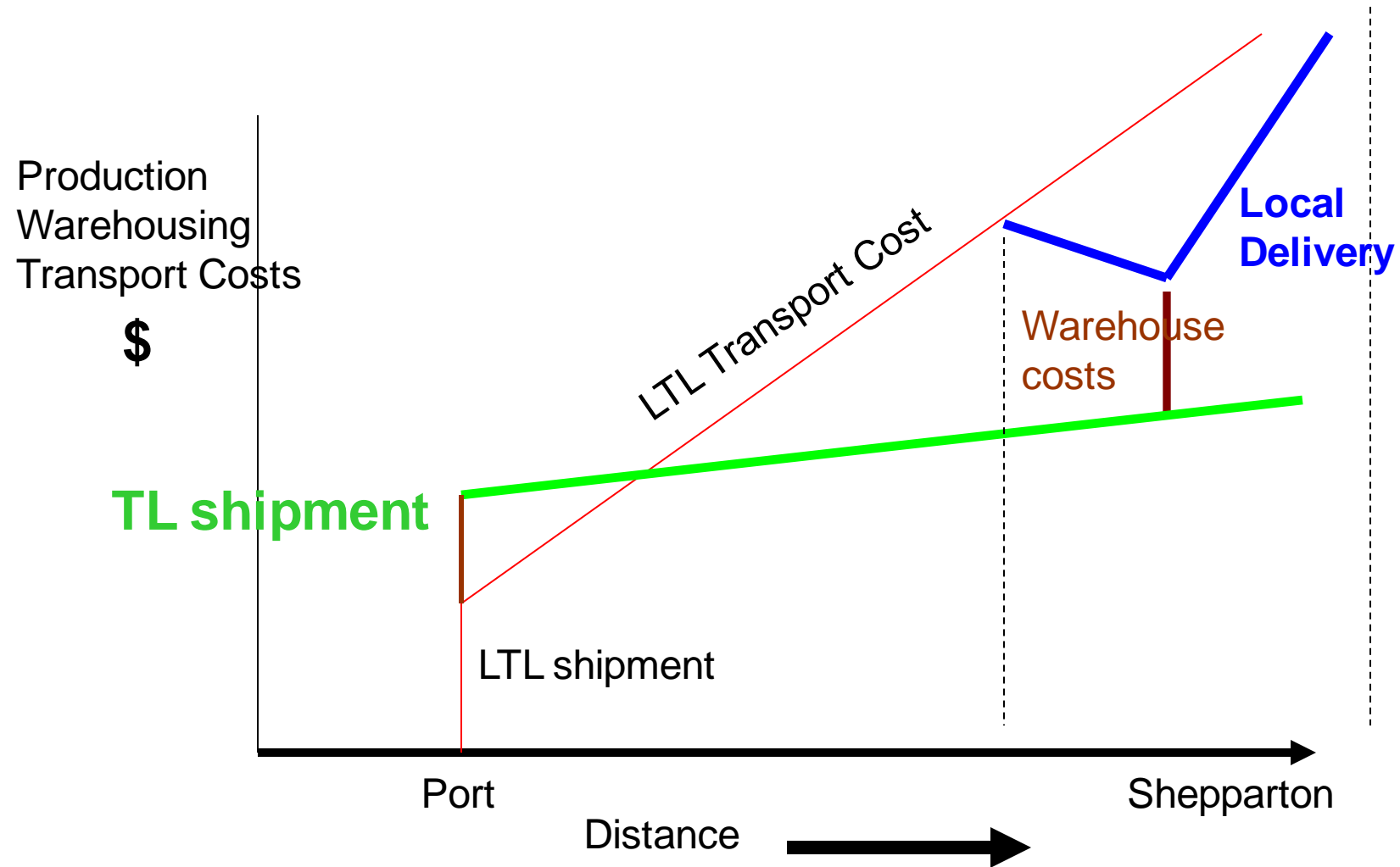


So is competition good for the beach goers?

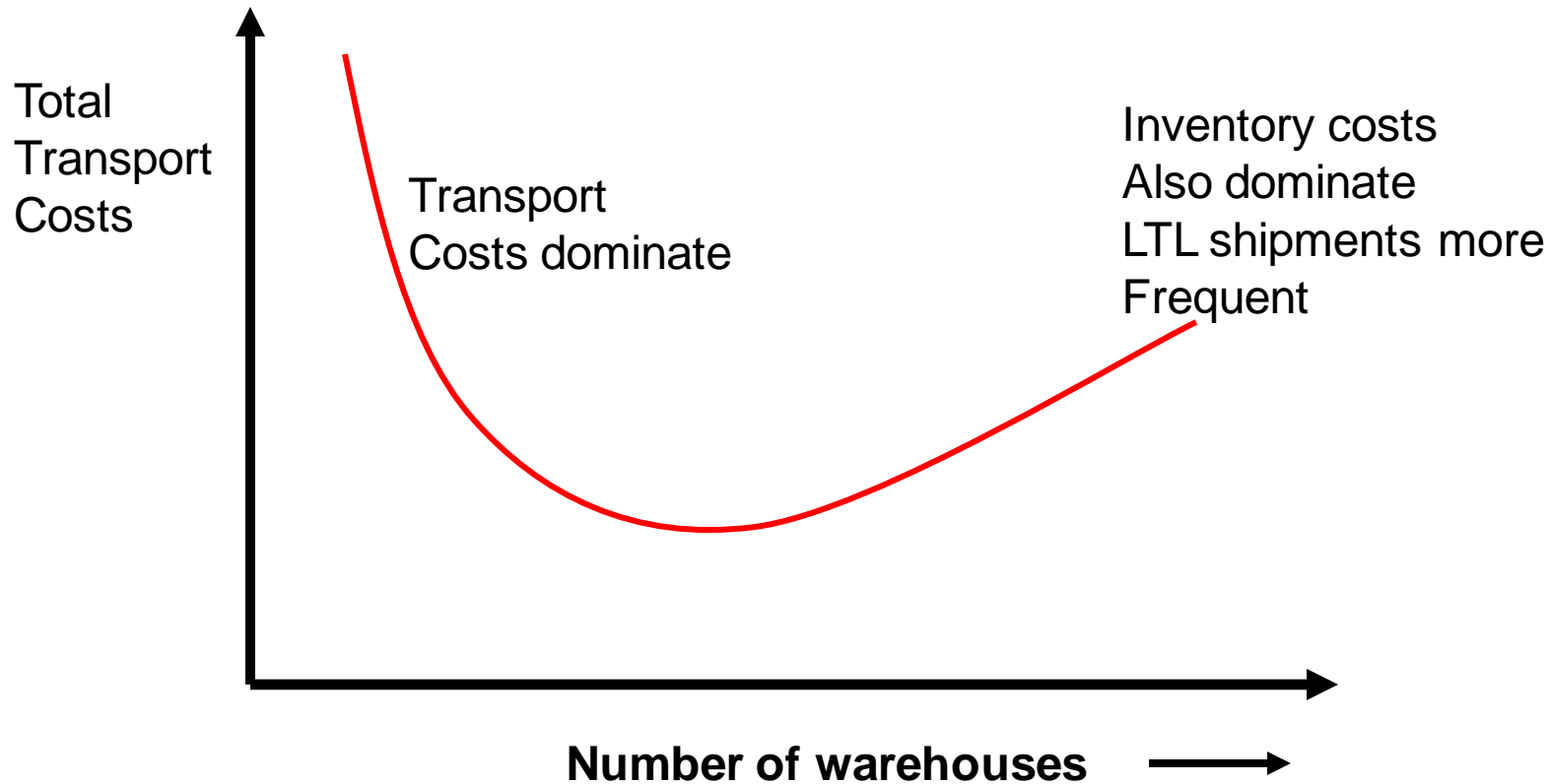
Hotelling in a region



Bowersox et al

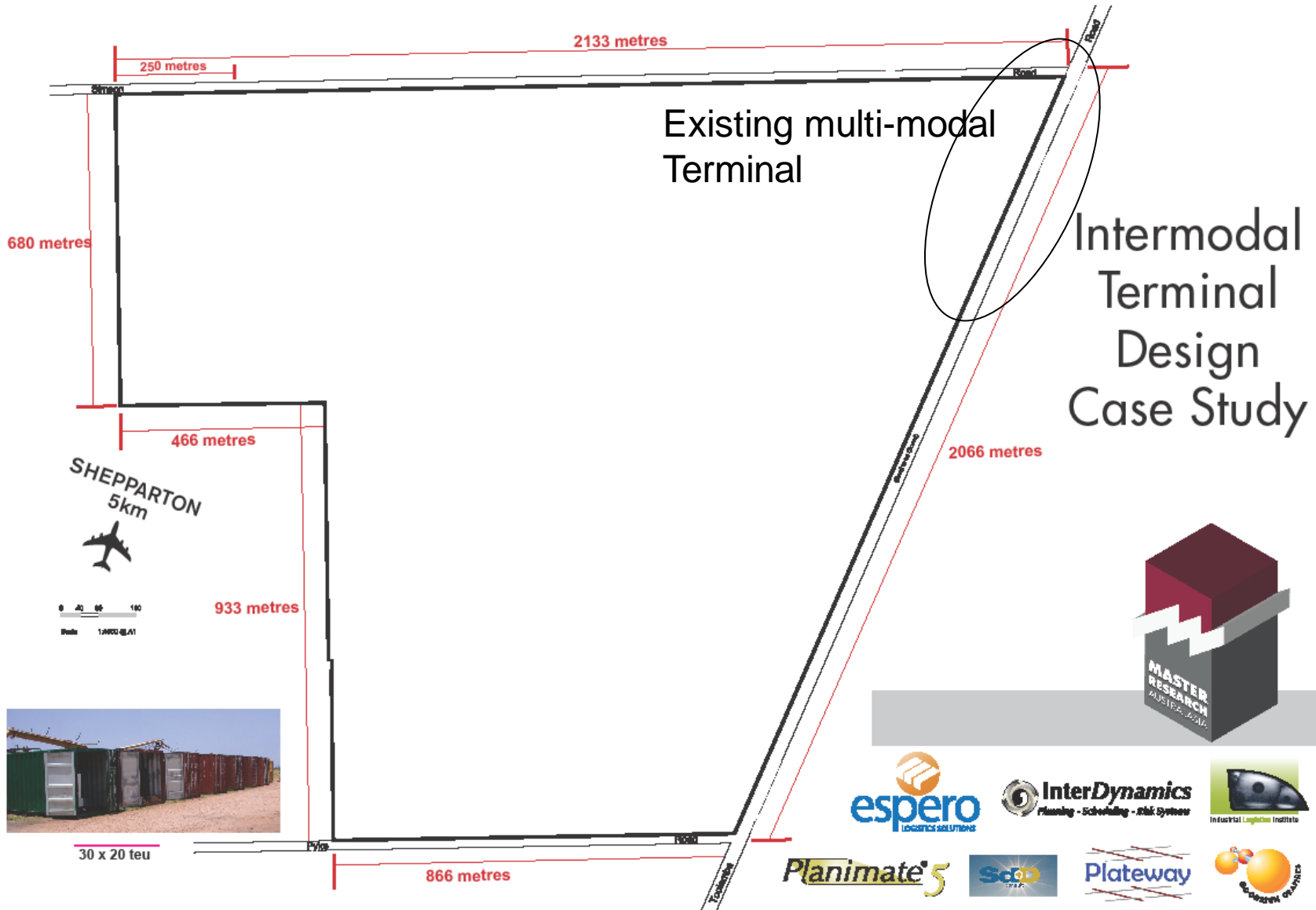


Transport costs and number of warehouses



Case Study

- Suppose you have inherited a large piece of rural land (237 ha) just south of Shepparton. Adjacent is a broad gauge track leading to Melbourne about 175km away.
- A small part of the land is already used as rudimentary multi-modal depot with containers loaded from local factories destined for the port of Melbourne. Currently you ship out about 100 containers a week in 3 trains with 30 containers per train.





A new transport idea

- Currently trucks pick up containers from the local area and drop them in your yard where they are loaded onto a train 3 times a week.
- Suppose you decide to use a truck which can also convert to a train. Use the truck to pick up local containers, consolidate them in your yard and then use the vehicle in train mode to deliver them to the port of Melbourne.
- You have a meeting with the State Minister of Transport with whom you wish to ask for a grant to trial this new transport idea.

Multimodal Truck/Train

US \$965,000

