**Project Proposal Discussion**

Key objectives

Using ESG as a guiding framework

E = minimise car emissions

* with consideration for geographic factors

S = maximise coverage

* giving opportunity for most people to make journeys

G =

Main concerns

Demand?

How we want to approach

3 models then possibly combine?

Deliverables (what we want to achieve)

How many bikes

* return scheme
* probability of people biking back home after work

Where to put stations/how many

* variance in set up cost

How much private investment

Using ESG as a framework

Extensions?

Planning maintenance windows around lower demand times

Network of community mechanics

* what about a bike constantly switching stations

station type

* dock vs hangar

develop an app

* users reporting faults

Discount for using the bike a lot

Notes from Kit

Assume all employer sponsors get the same benefits

Employers are part of a joint association

* Only 1 variable then

Initial modelling don't have to consider electric Vs non electric

* Advanced models should consider this
* Electric bikes would extra costs but better route efficiency

Strategic: how many bikes etc where to locate

Meeting 27/10

Edinburgh Pois - plot by categories and clusters

Heatmap - number of trips started from all stations over all years

Potentially omit 2020

* data seems to demonstrate double trips but this is during pandemic

Stations having more docks than bikes?

**Meeting 31/10**

Kal Questions:

Council budget

* private vs users vs council
* minimize council spending

Bike cost

* make assumptions
* base on unit price how many more can you buy and keep improving objective
* we need to tell them their budget and how to use it
* Present some sort of package deal
  + i.e. discount for buying 1000 bikes vs 500 bikes

Technical notes:

* comment on issues with model running as complexity increases
* reference the voi pilot
* carbon footprint
* think about multiple timepoints for demand
  + demand is the major concern
  + build a timeline
    - stochastic analysis of pandemic probability

Implementation plan:

* stations cannot necessary be built all at once
* constraint (not necessarily in the model) for physical capability
* How long would it take and how much would it cost
  + ignore inflation, assume simply rate of return

**Perplexity AI**