# Objectives

## Project £ drugs spend

* General approach: disaggregate to functionally useful “atomic” categories, each of which has a life-cycle model.
* All categories are modelled over time, or explicitly represented as a sub-series of categories oriented to launch time.
* Eg now: a single (big) atomic category, with a series of time categories

### Disaggregation to functionally useful “atomic” categories

#### Example categories:

* + Adalimumab (top sales drug)
  + All hospital drugs launched in 2008 *except adalimumab*
  + All hospital drugs that will be launched in 2018
  + Cancer drugs launched in 2012
  + All rare disease drugs

#### Identifying categories

* + Informal (eg biological vs chemical)
  + Policy-oriented (eg cancer, rare diseases)
  + Supervised learning
  + Unsupervised learning
  + (How to overlay categories? Alternative compositions? Just reaggregation?)
  + Mixed categories? Eg Cancer drugs *over time*? Is time always an external variable to be applied to all categories? Disaggregation always implicit anyway

### For each atomic category: model spend vs time profile per category

#### Generate

#### Change to time profile with time

#### Explanatory variables

* + (category membership)
  + Explicit external variables – eg policy

## Provide UI for exploring scenarios