

Software Project Management:

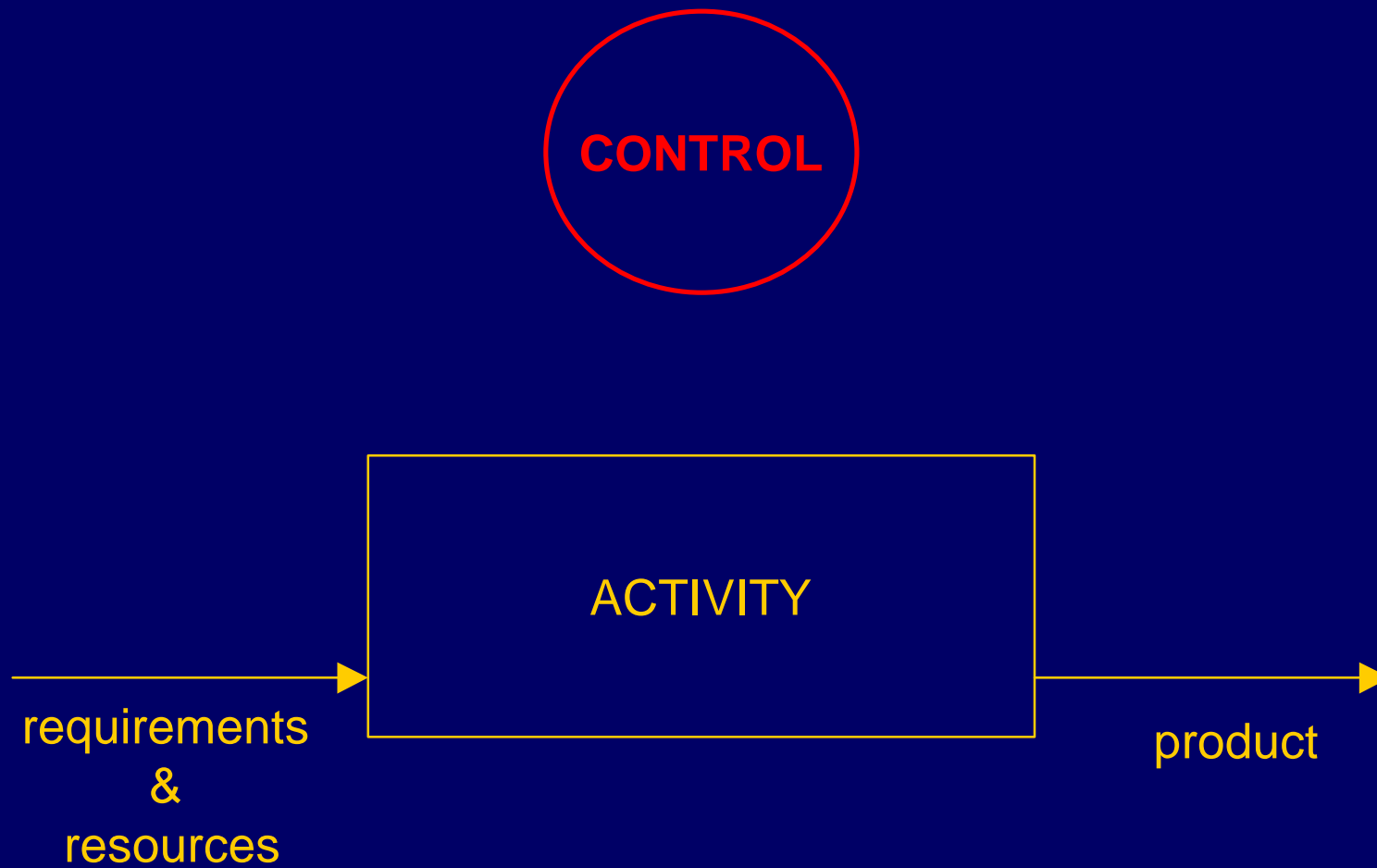
# MONITORING AND CONTROL

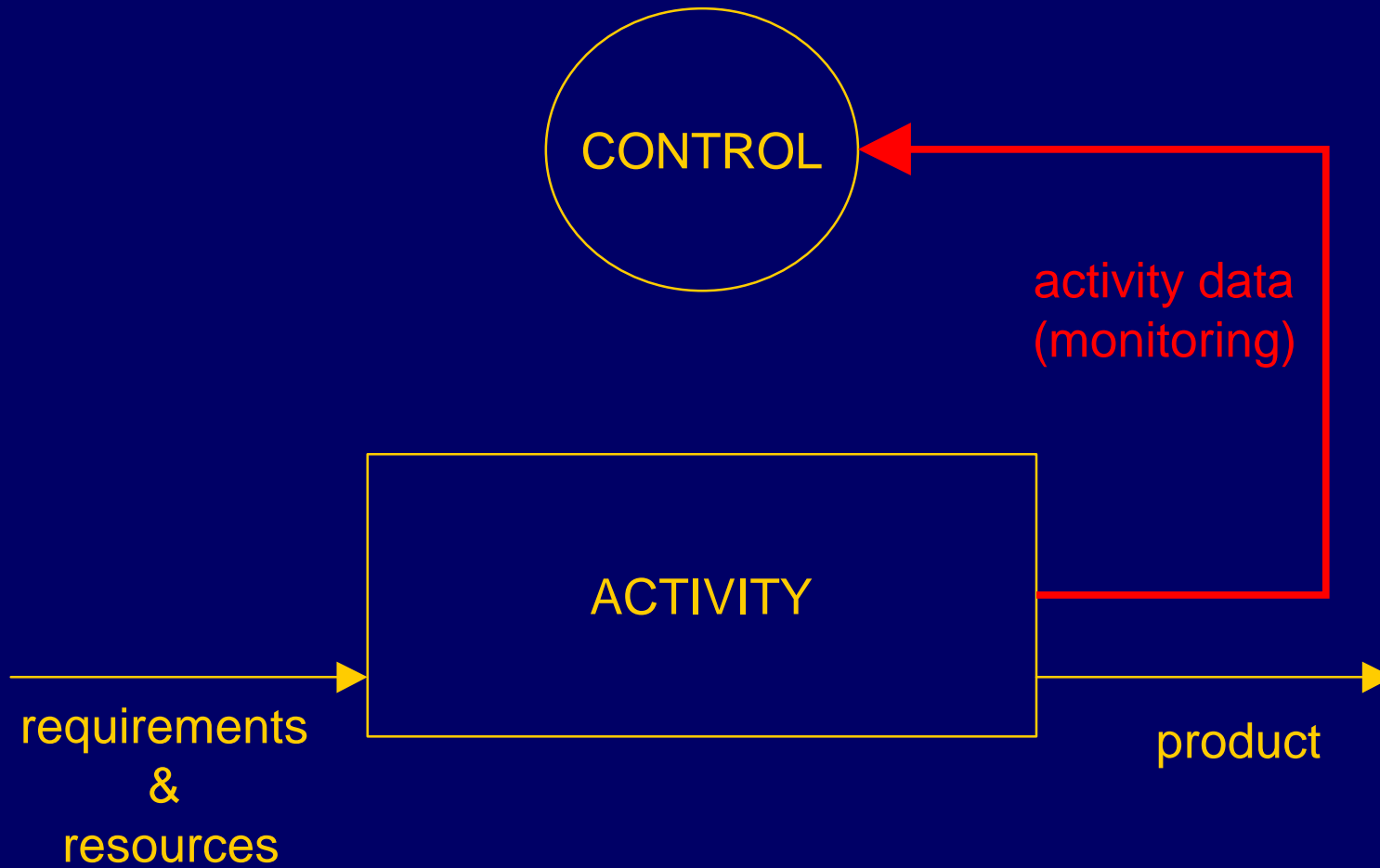
SPIN - September 2001

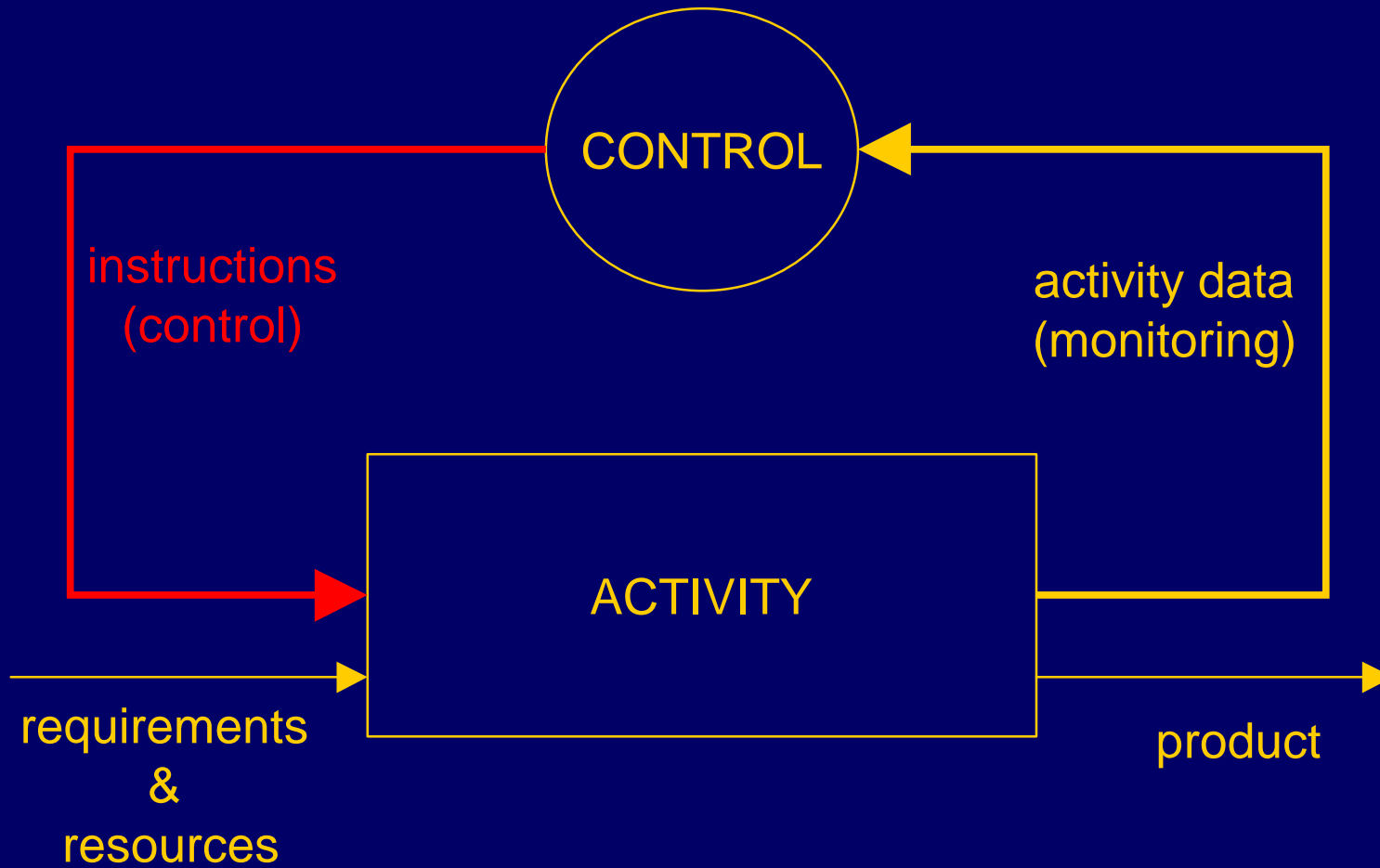
## *Contents*

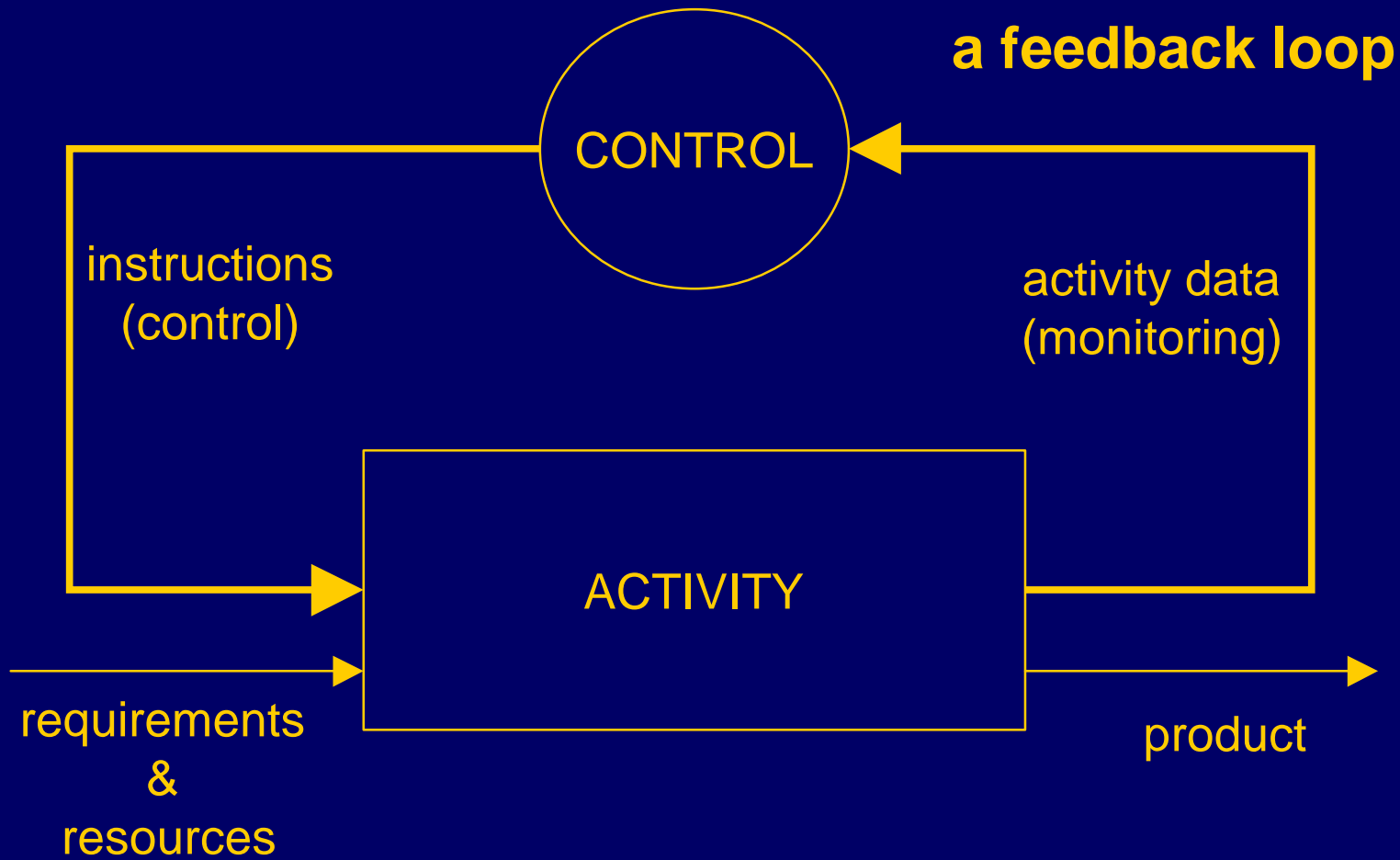
1. Monitoring and control model
2. Activity data (monitoring)
3. Instructions (control)
4. Activity
5. Control









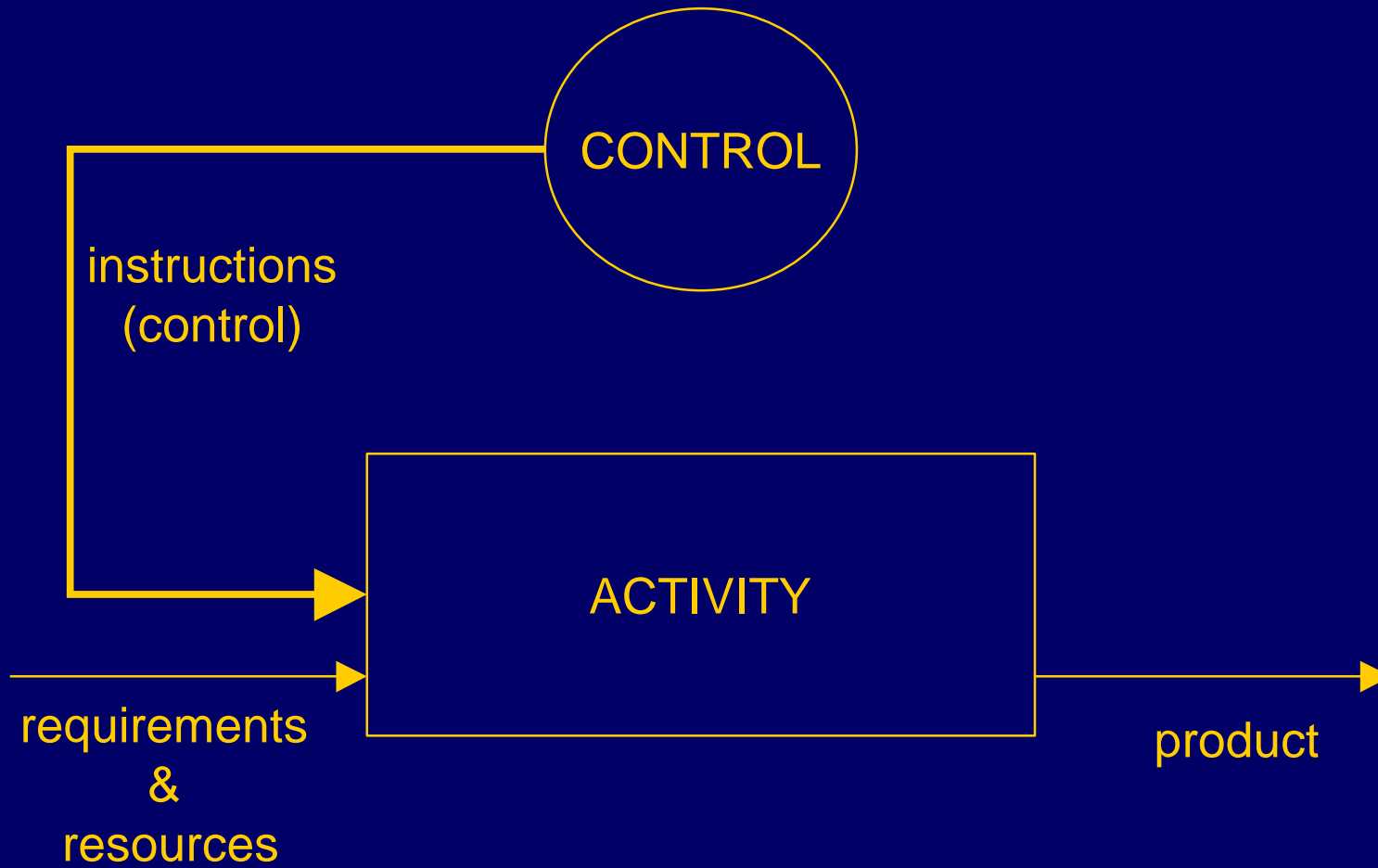


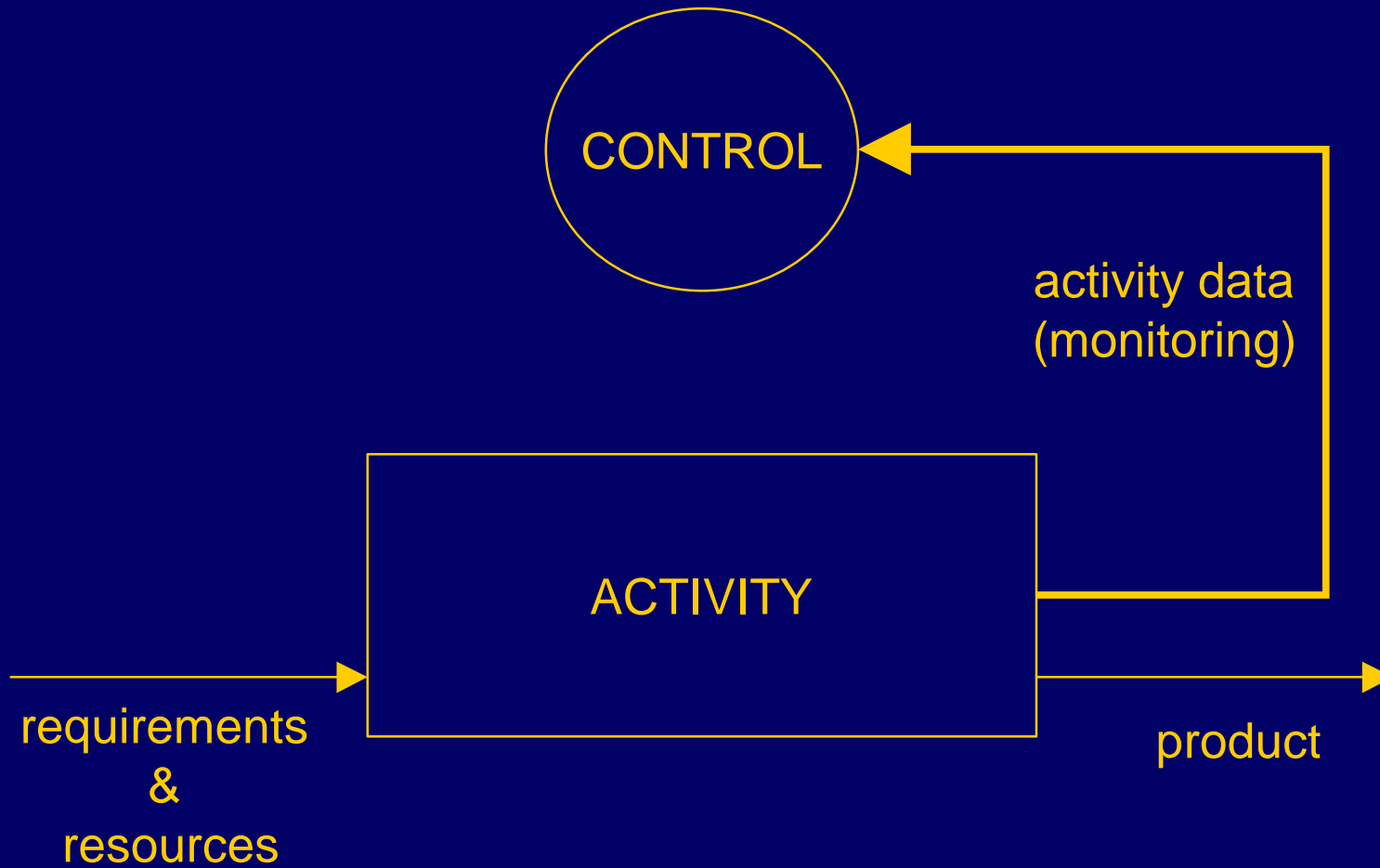
- Monitoring and control is a feedback loop
  - it is not planning, estimating, progress reporting or the CMM L2
  - most like (change control)<sup>2</sup>
- Examples of feedback loops / control mechanisms:
  - cistern and ball cock
  - governor on a steam engine
- Project feedback loop is *not* mechanical
- Many dimensions to control
- Heuristic not algorithmic
  - project - not production (but would like to be)

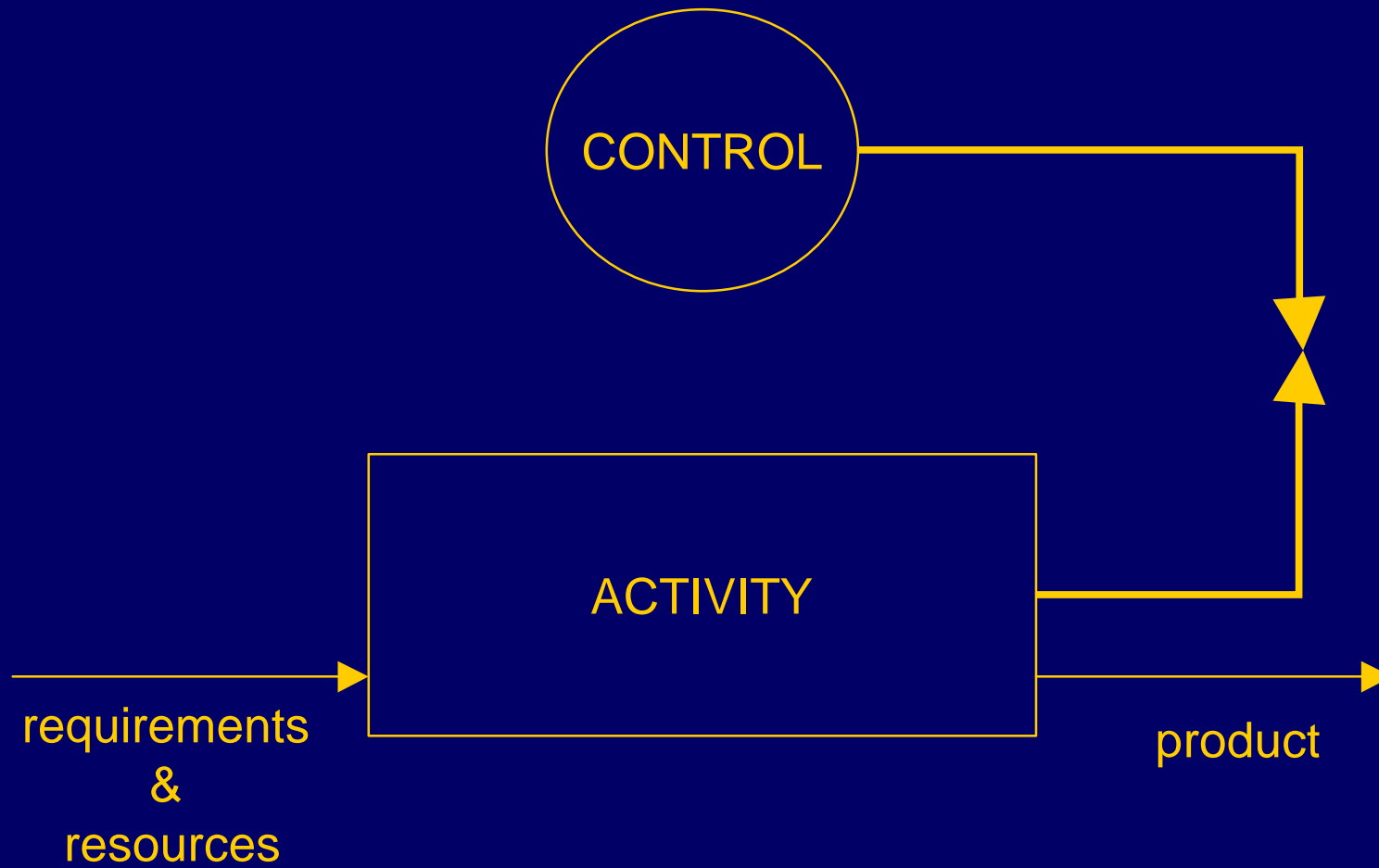


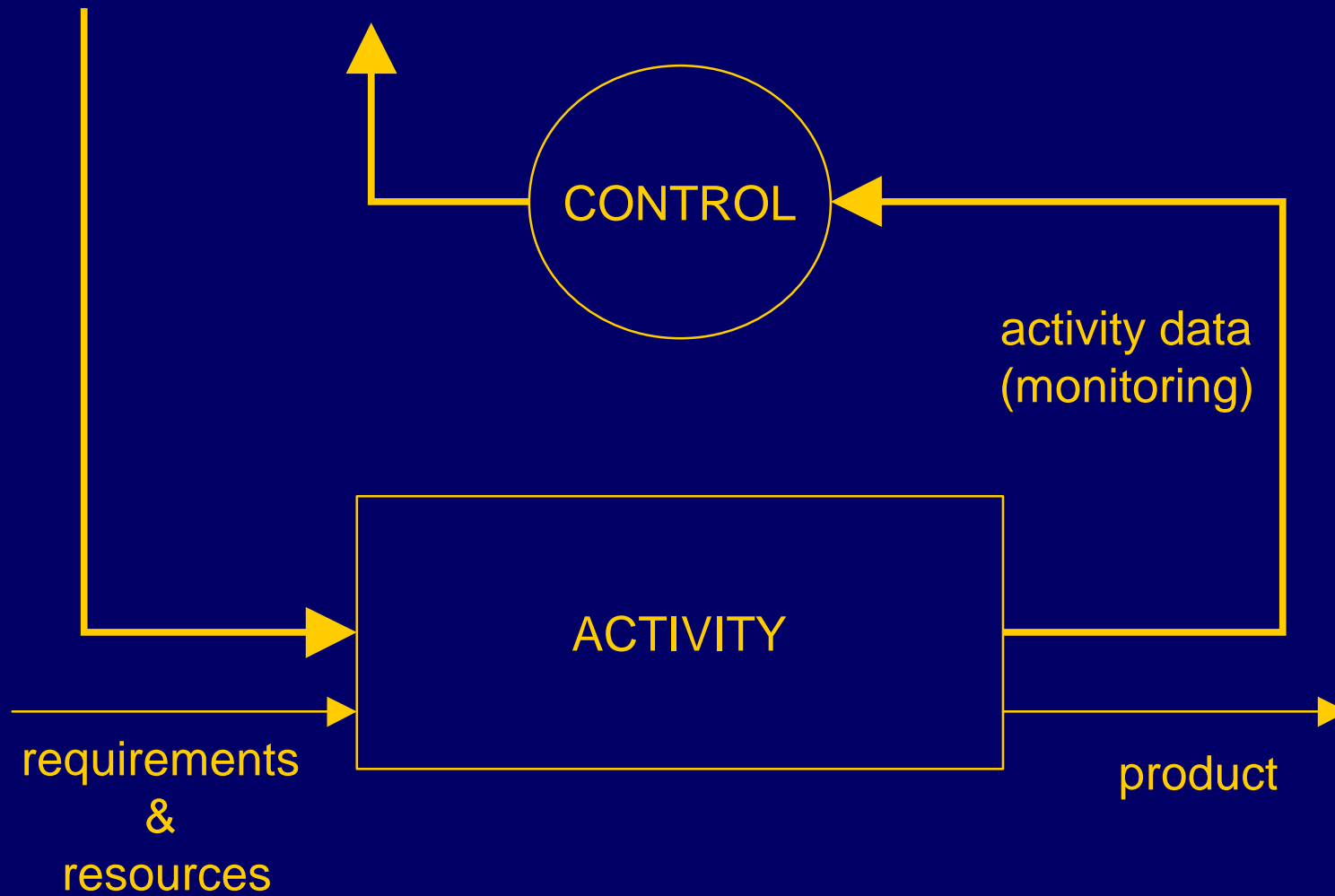
- There are defective feedback mechanisms

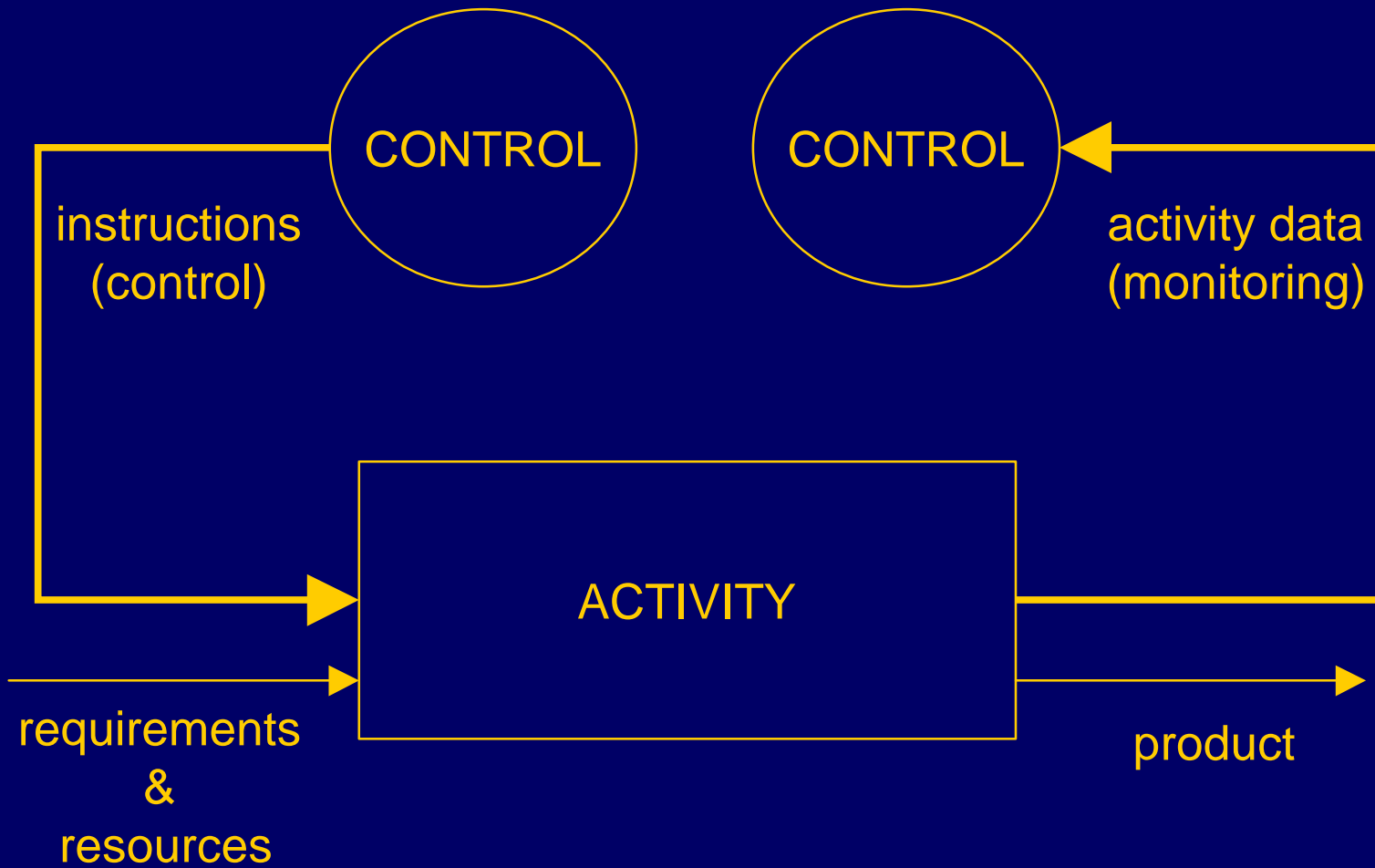
(identify your favourite pathological projects)

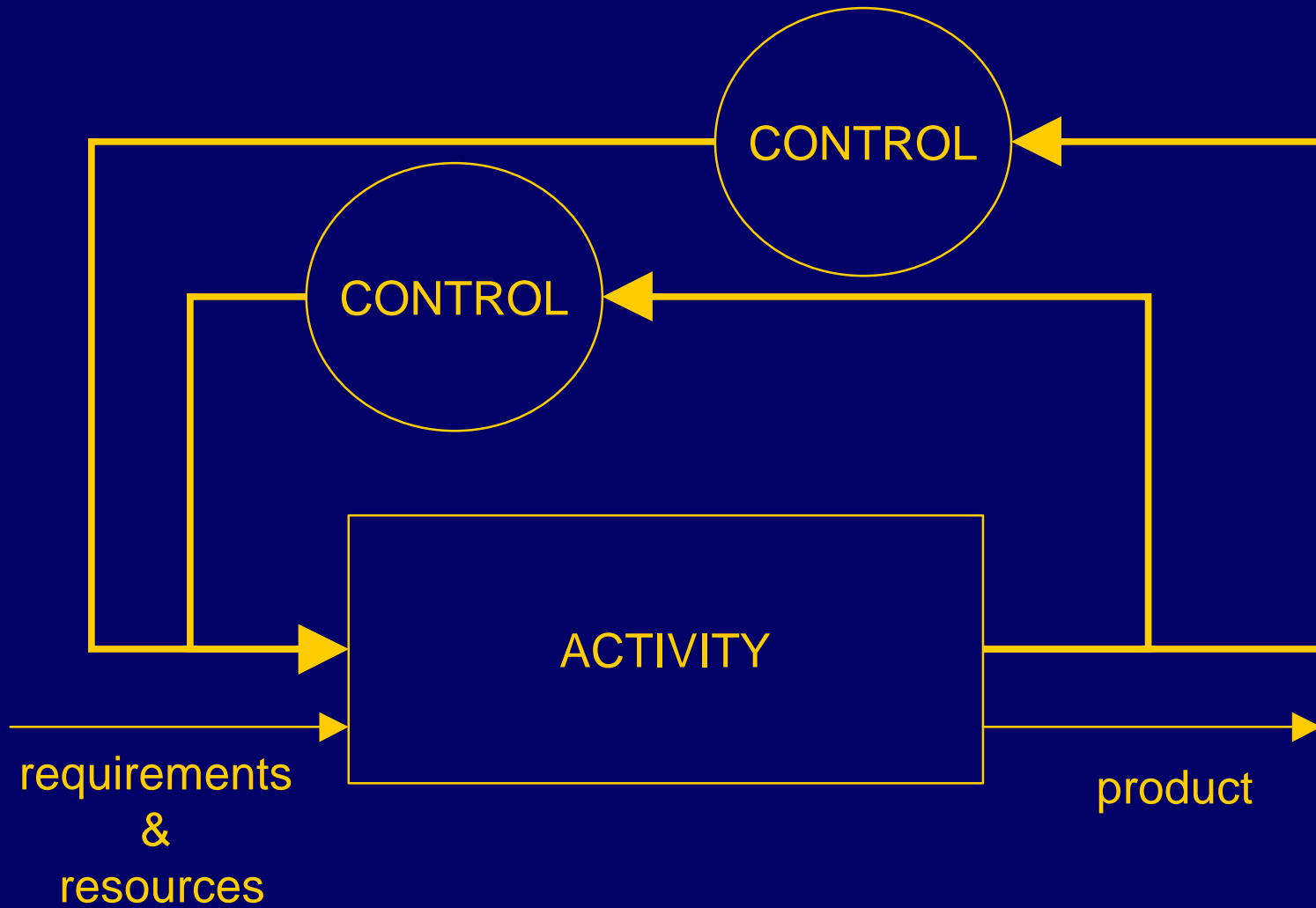


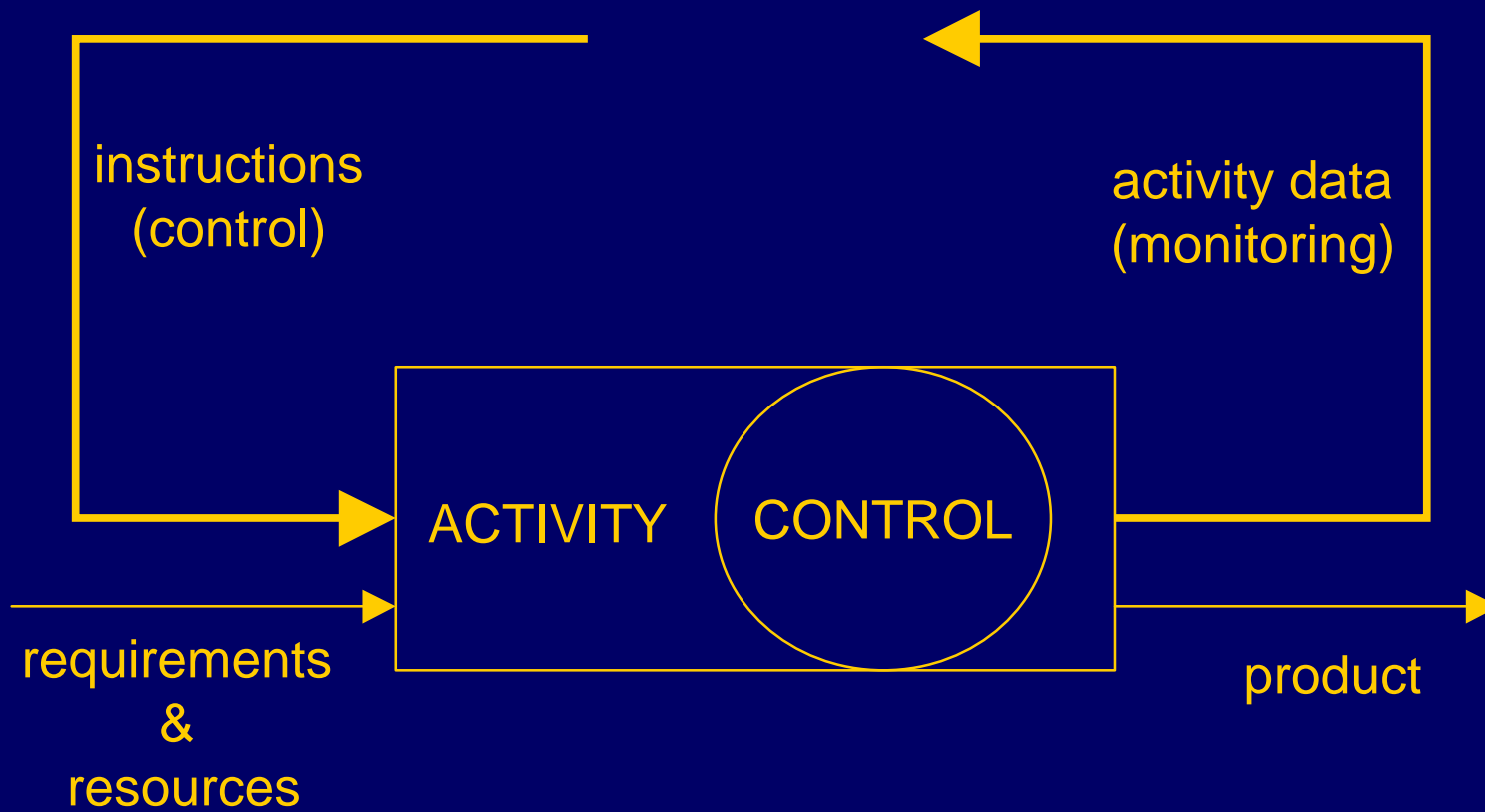






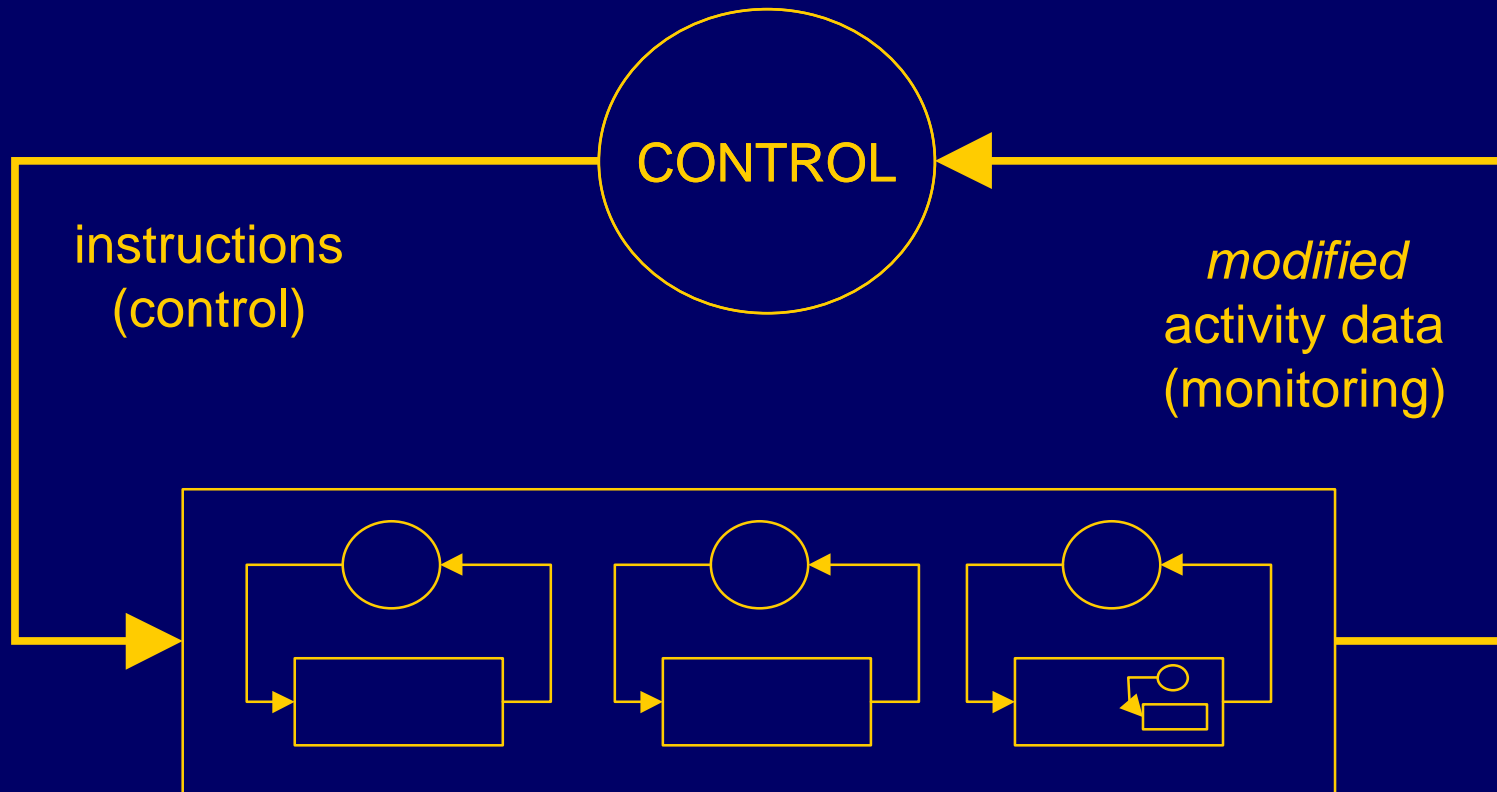


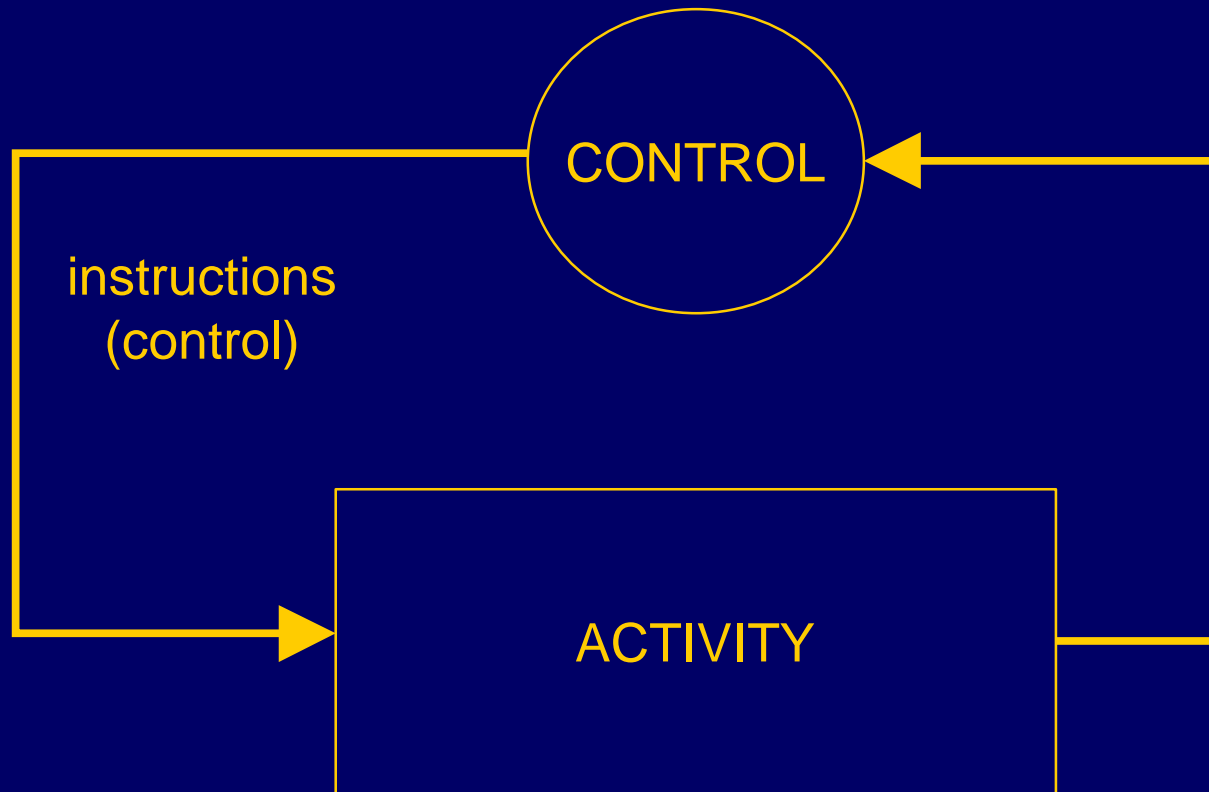






- It can be adapted to operate hierarchically (programme management)
- It can be adapted to operate with supply chains
  - but the nature of activity data and instructions information does change





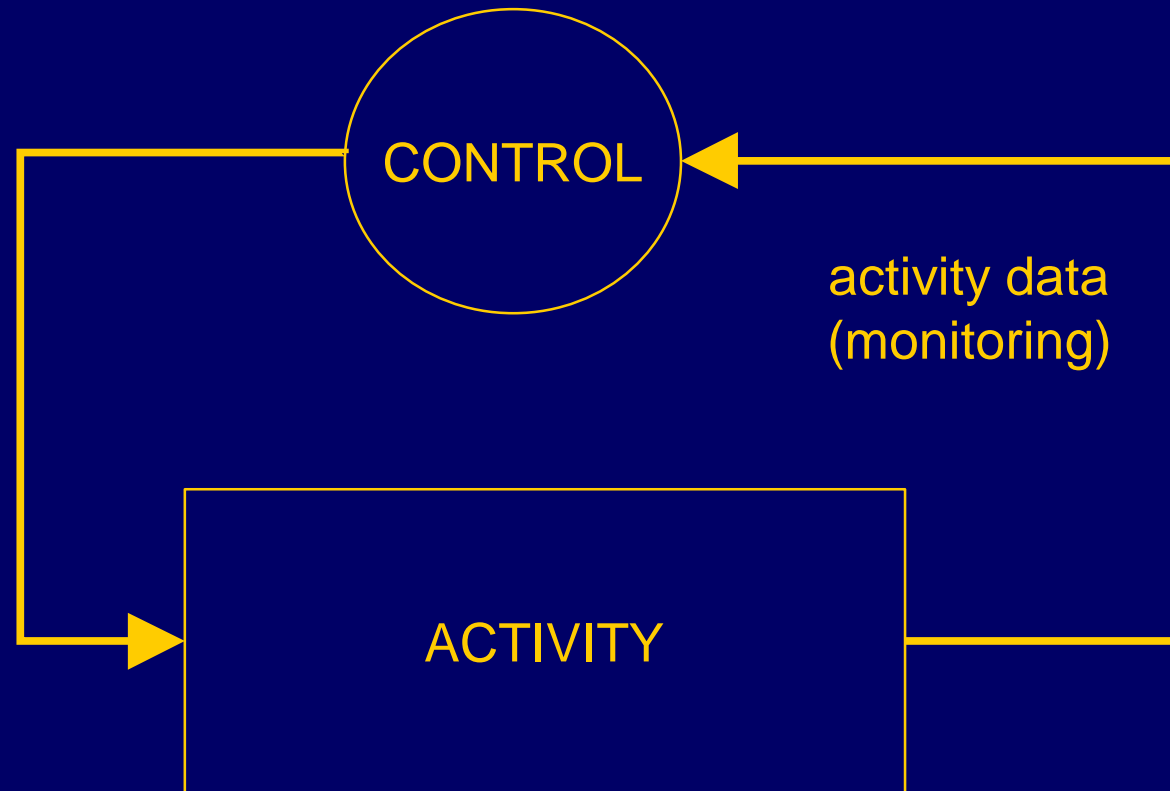
What is this?

- Communication of activity data should be:
  - in place (available - now)
  - timely (real time)
  - simple
  - structured
  - complete
  - conventional (a standard to make life simple)
  - consistent
- because...

- Communication of activity data should typically describe :
  - work completed (and not completed)
    - w.r.t. schedule
  - quality (usually unreported)
  - changes
  - risks
  - defects
  - actions and issues (what is an issue?)
  - others - e.g. resources, requirements in/satisfied, customer satisfaction....
- individually and collectively
  - signal stress points and potential problems

- Example.....

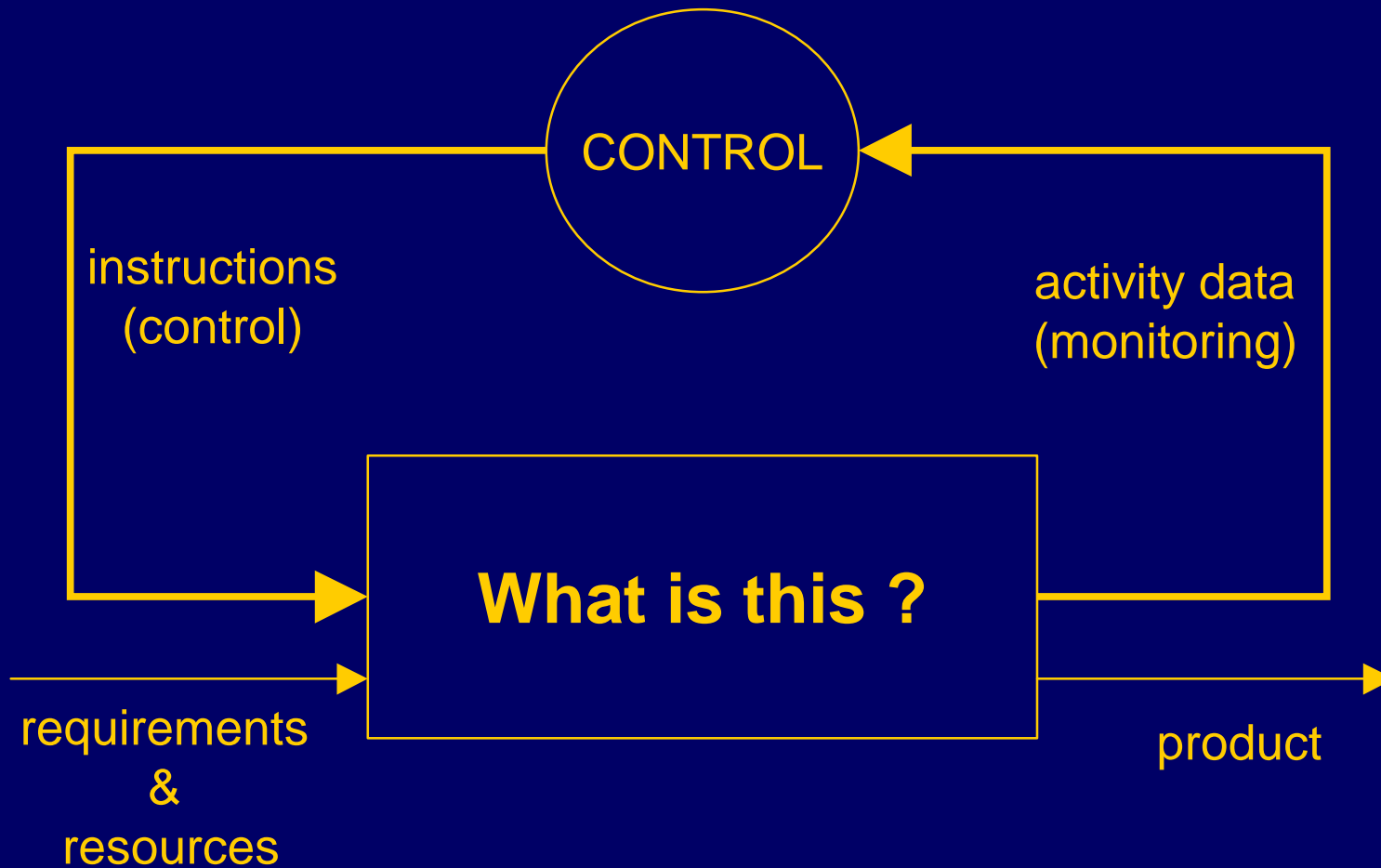
What is this?



- Control instructions should be
  - accountable
  - informed by detailed activity data
    - individual and collective
    - for all indicators
  - justifiable - w.r.t. activity data
  - re-align control parameters
    - Shown as decisions and change in emphasis in decisions in activity data
  - communicated (available now)
  - be well judged !
    - (heuristic not algorithmic)

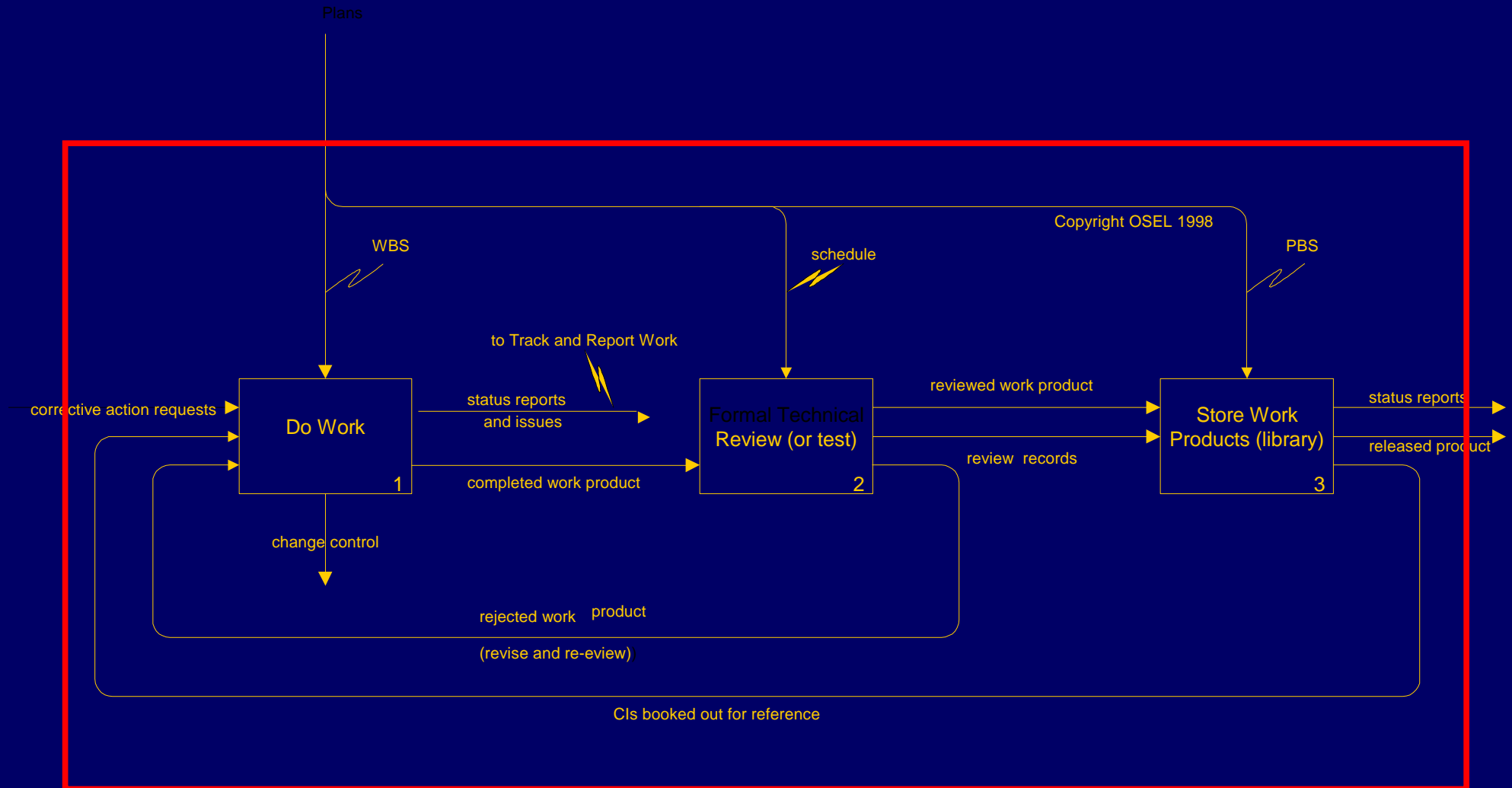


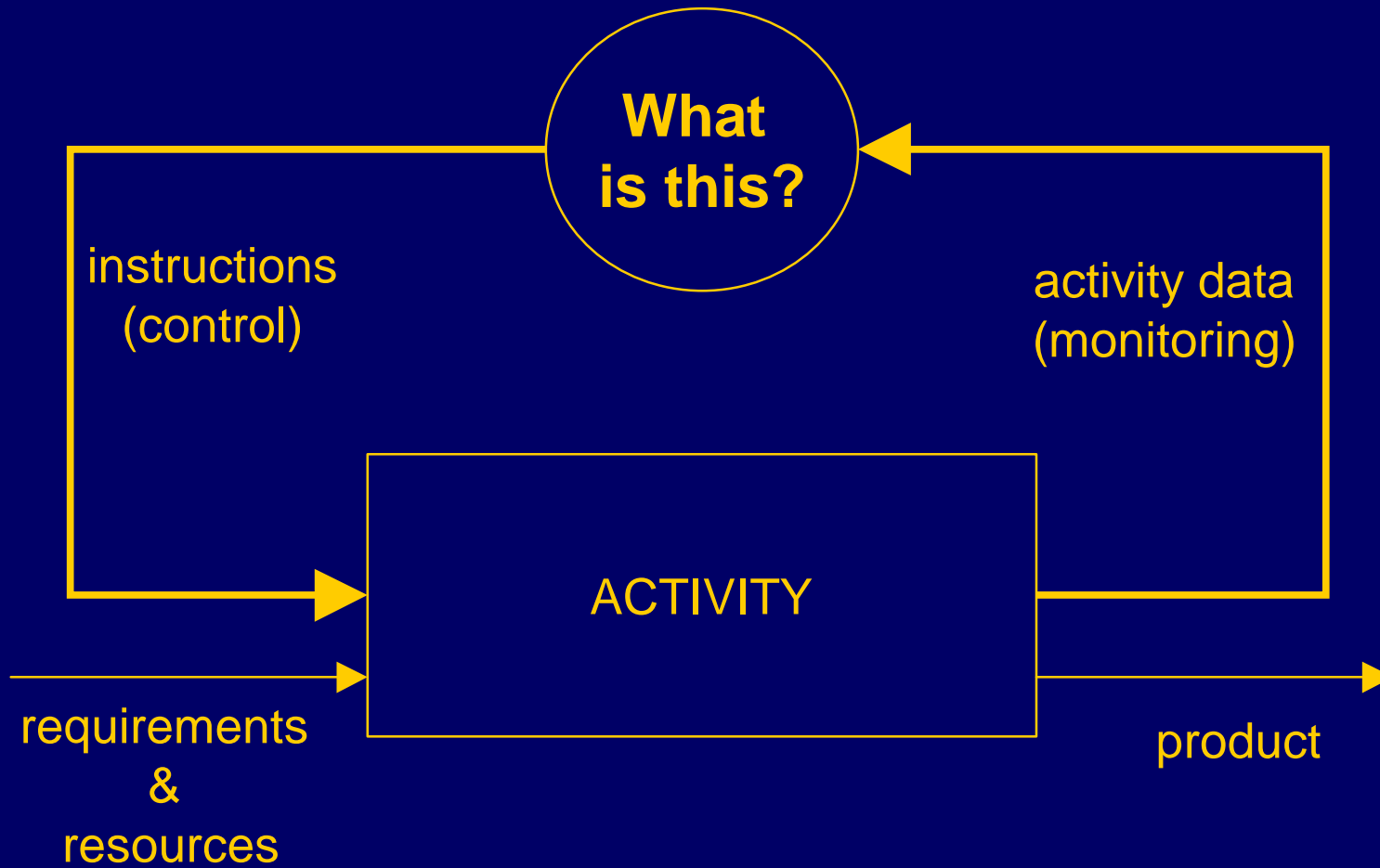
- Example.....



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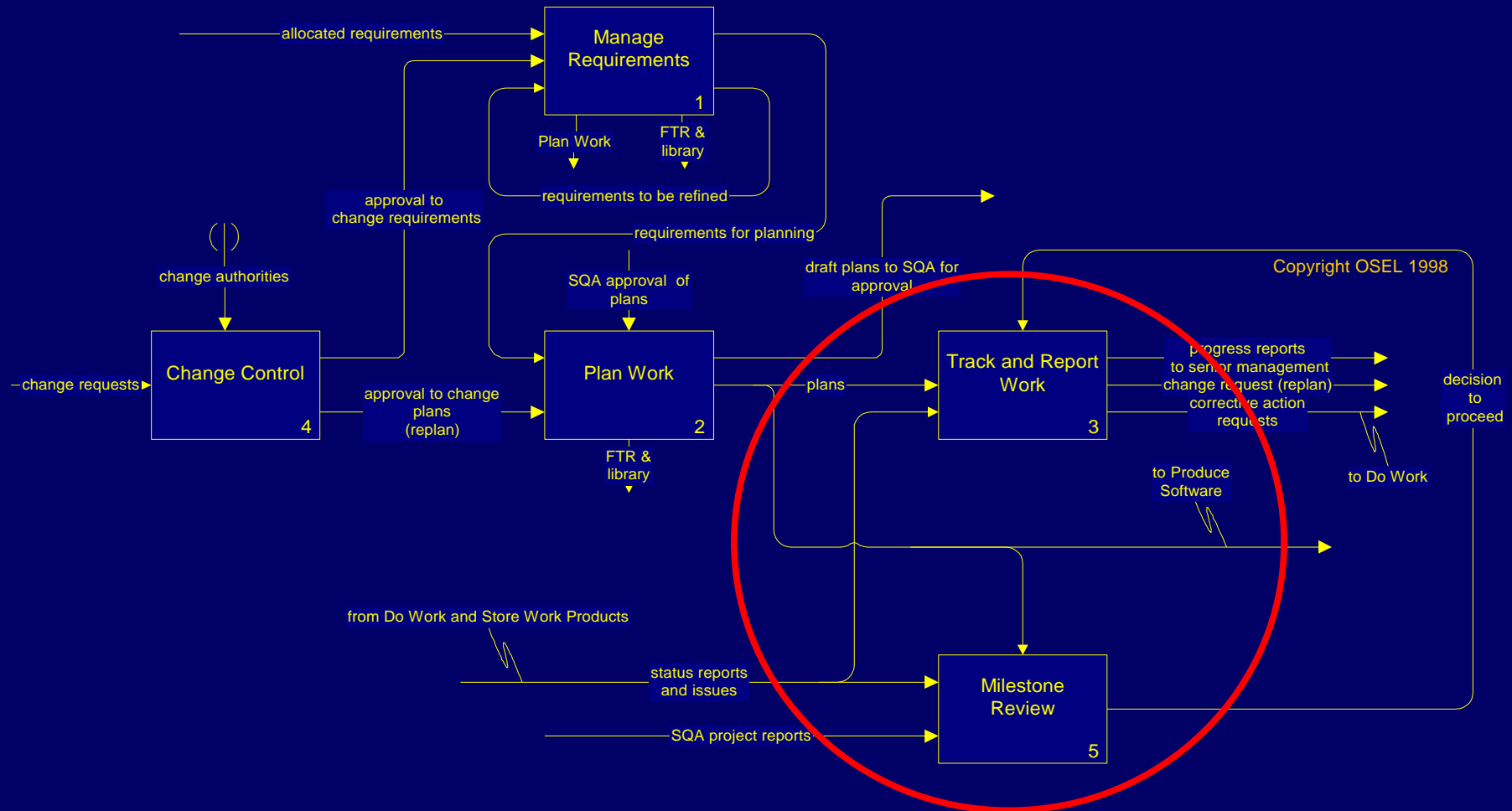
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