

Cybernetics and Management!

School of Business Information
29th November 2005

Professor John Beckford

What do these companies have in common?

- GNER – a train operating company
- Astra Zeneca – pharmaceutical research
- Arena – social housing provision
- Royal Bank of Scotland – financial services
- Parcelforce – logistics & distribution
- InHealth Group – private HealthCare provision
- Hoverspeed – ferry operators
- Aylesford – newsprint manufacturers

What do these companies have in common?

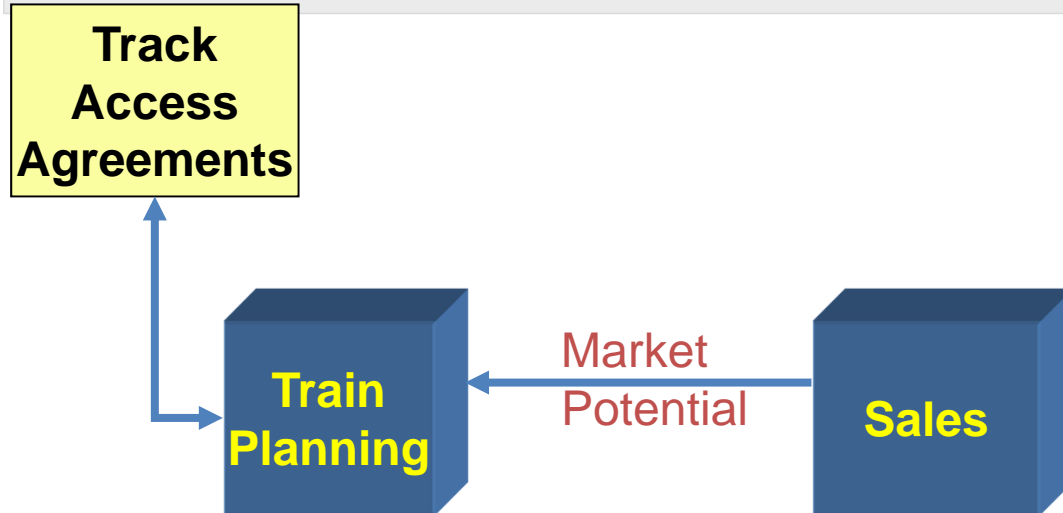
- They all adopt cybernetics as a thinking framework for all or part of the organisation

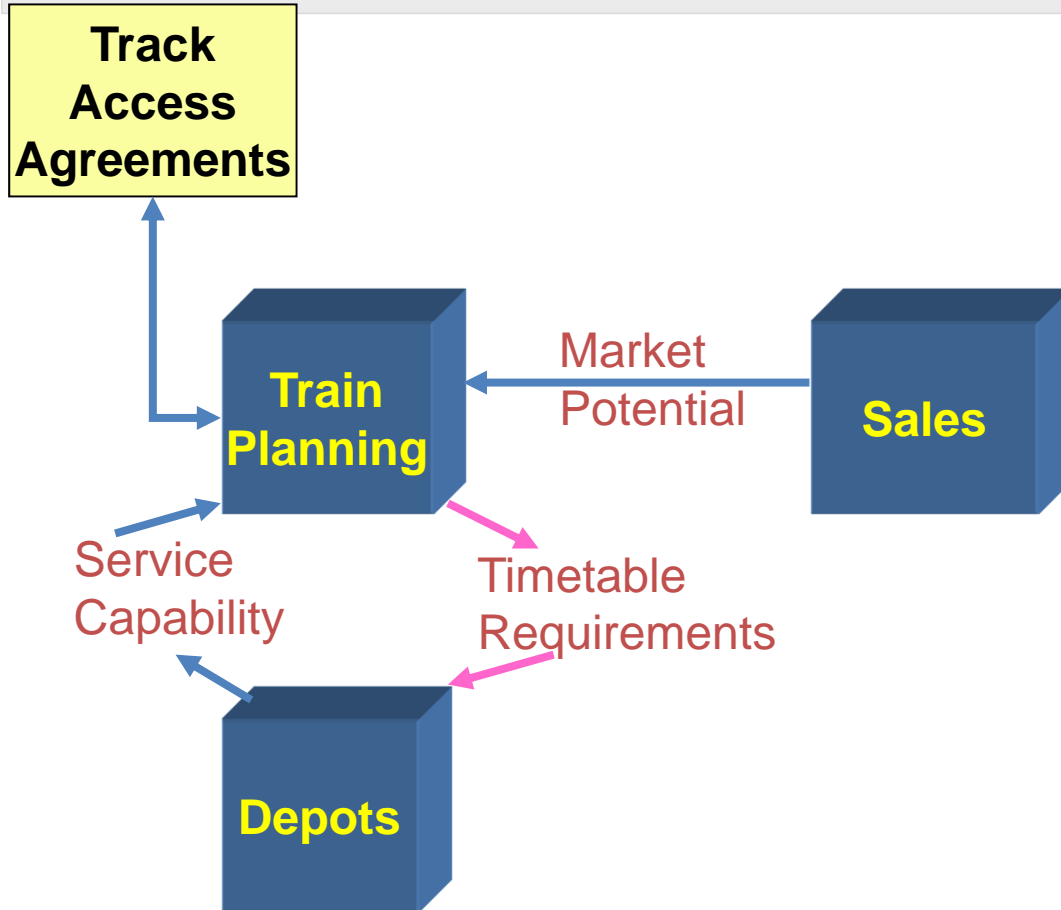
What do they use it for?

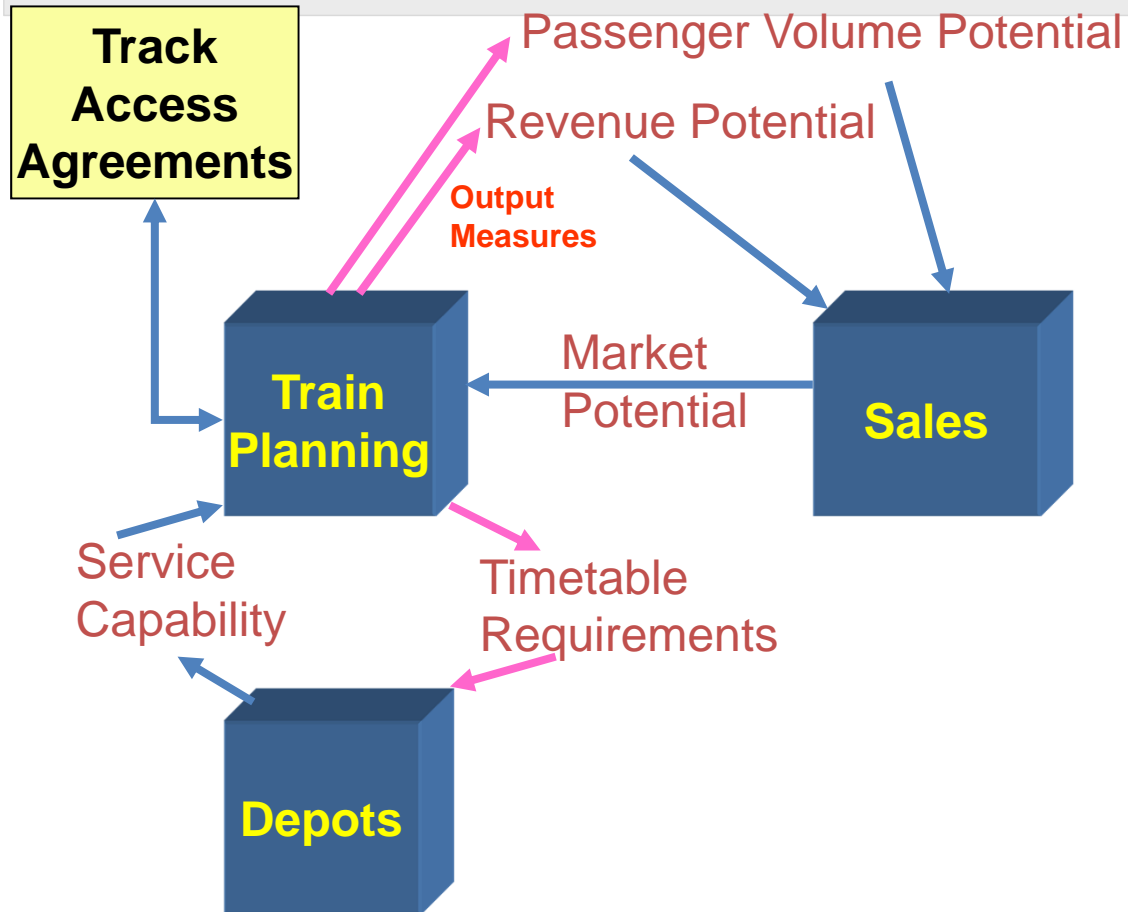
- GNER – organisation, process integration & MIS
- Astra Zeneca – project management
- Arena – organisation, structure, performance management & simulation
- Royal Bank of Scotland – learning management
- Parcelforce – performance management
- InHealth Group – performance simulation, bidding
- Hoverspeed – organisation structure
- Aylesford – performance management & simulation

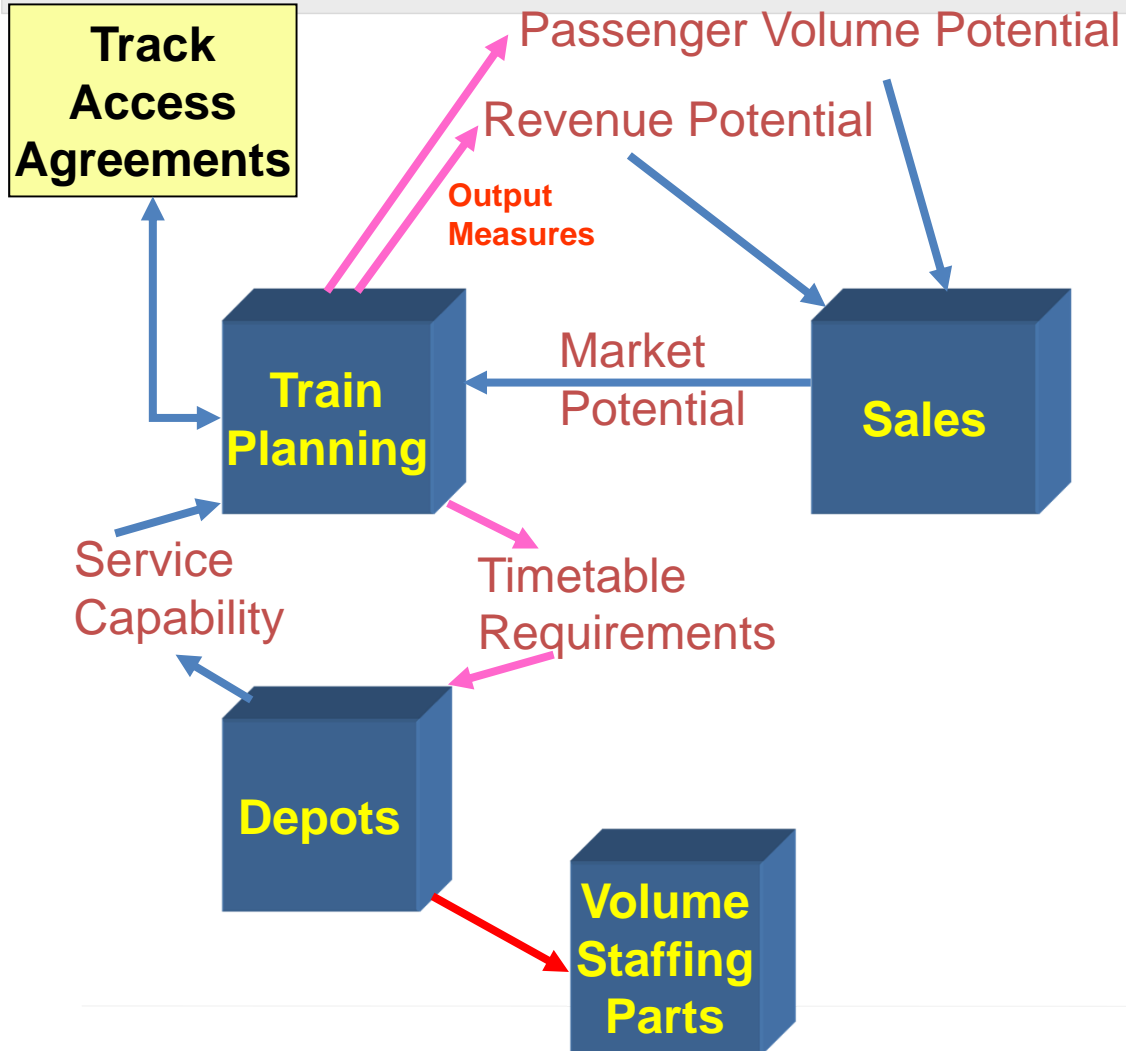
GNER Process Integration





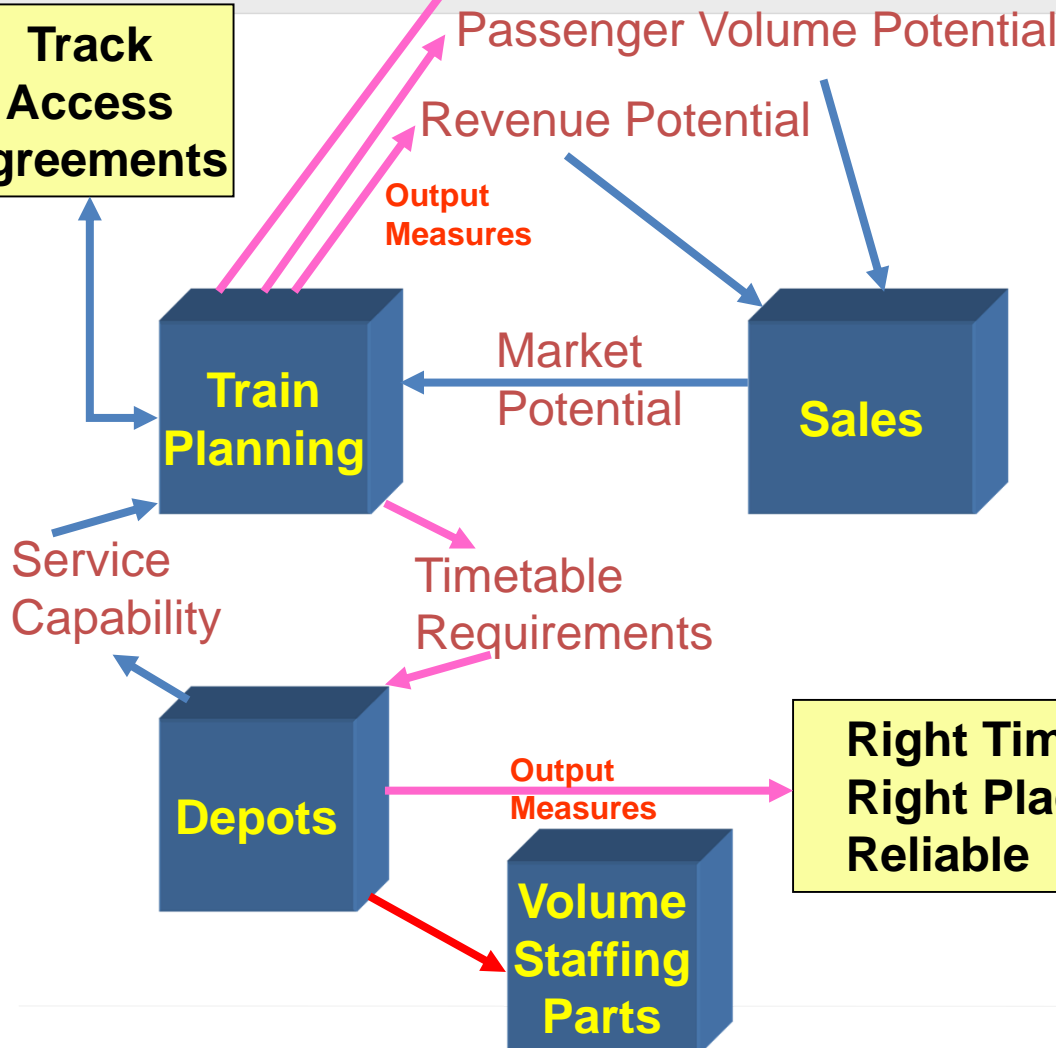








Output
Measures



**Ops
HR**

**Right People
Right Skills
Right Values**

**Track
Access
Agreements**

**Train
Planning**

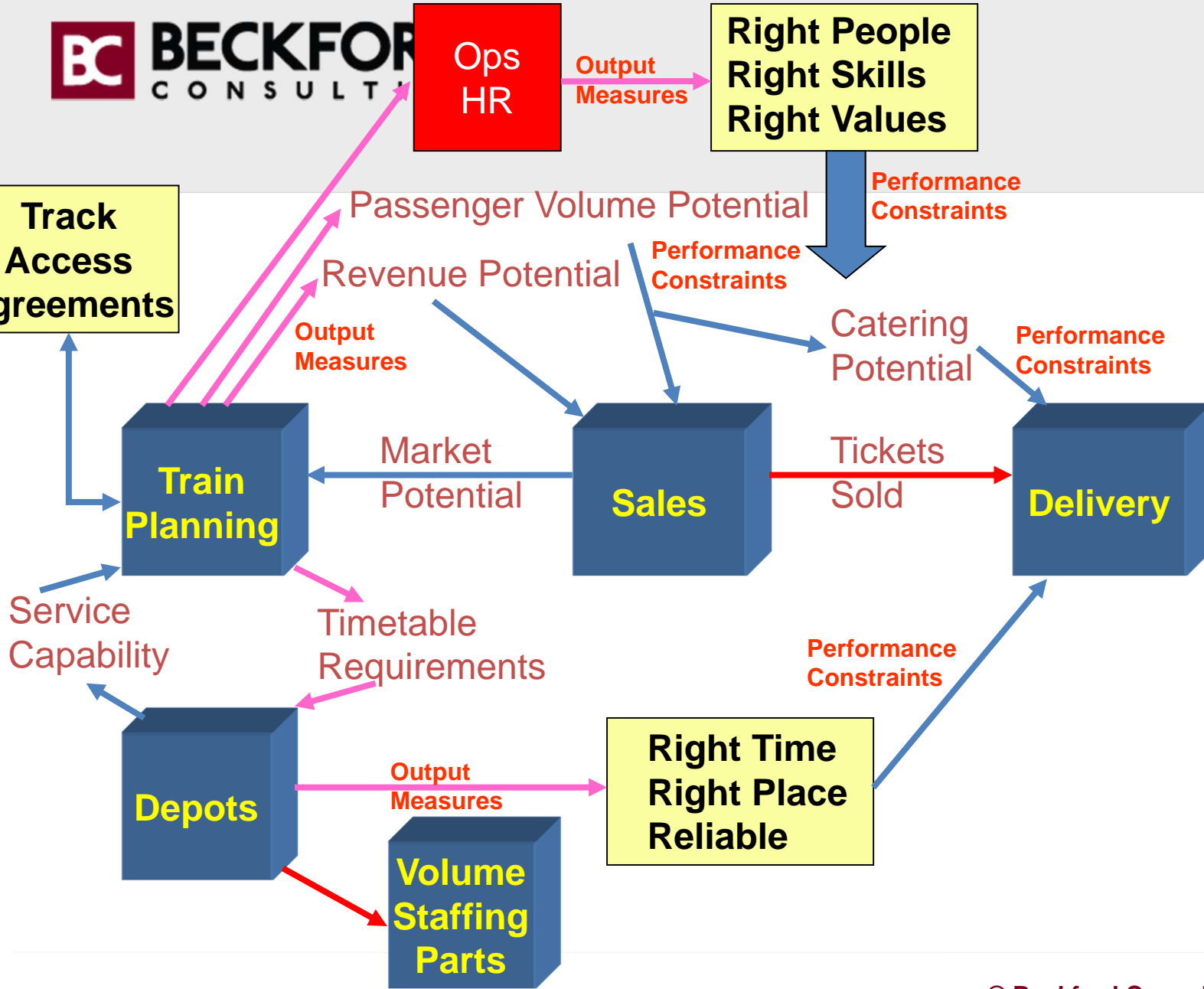
Sales

Delivery

Depots

**Volume
Staffing
Parts**

**Right Time
Right Place
Reliable**



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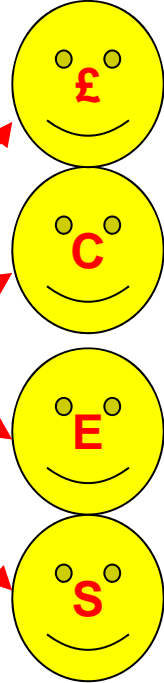
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Output Measures

Performance Constraints

Passenger Volume Potential

Performance Constraints

Revenue Potential

Output Measures

Catering Potential

Performance Constraints

Market Potential

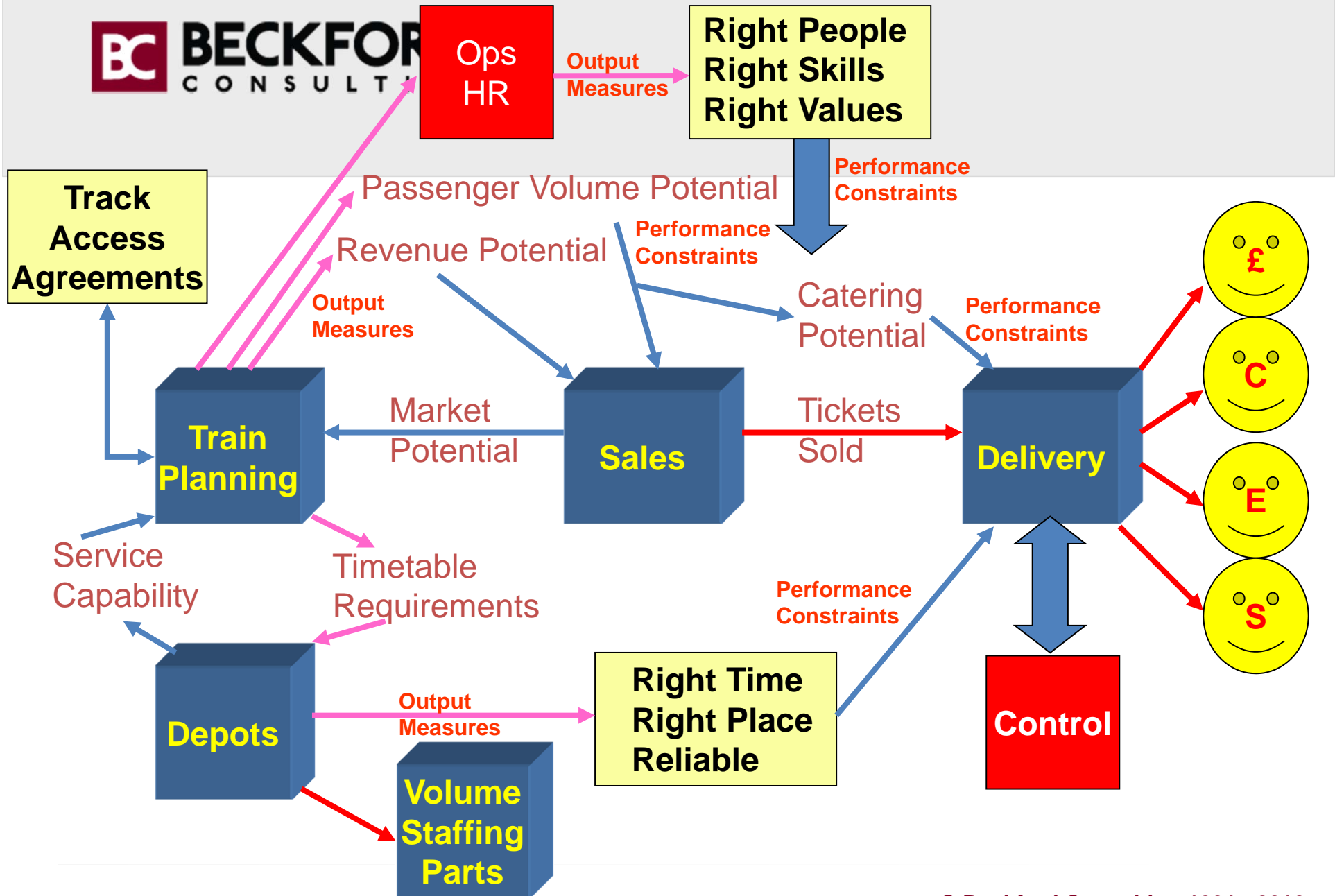
Tickets Sold

Service Capability

Timetable Requirements

Performance Constraints

Output Measures



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HR**

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Delivery

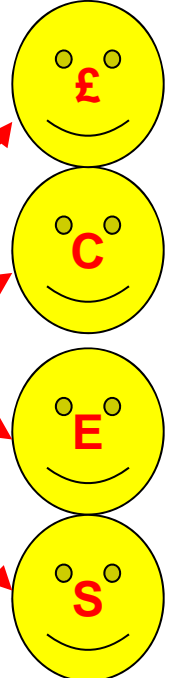
Depots

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Reliable**

Control

Reg & Comp



Output Measures

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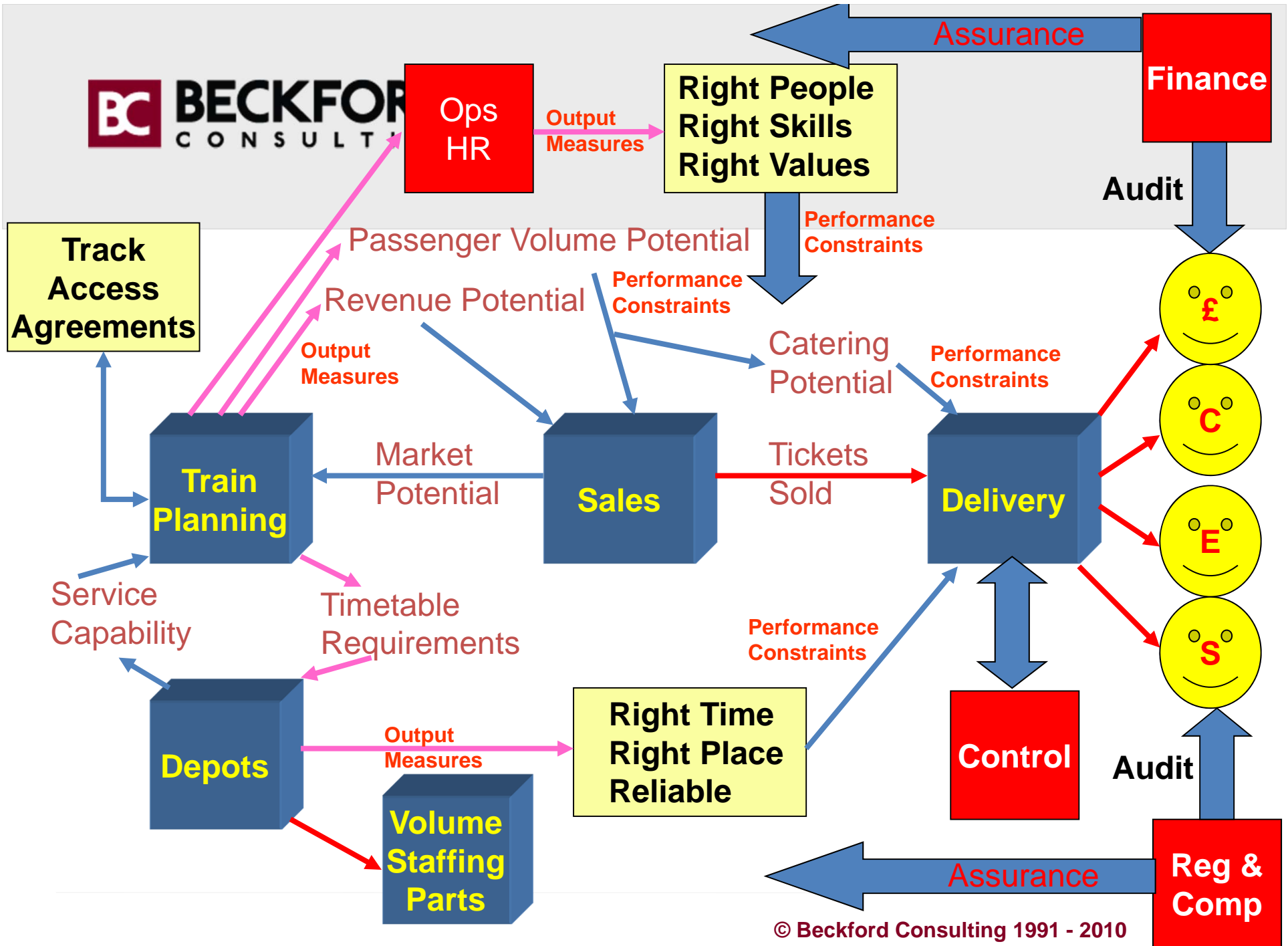
Timetable Requirements

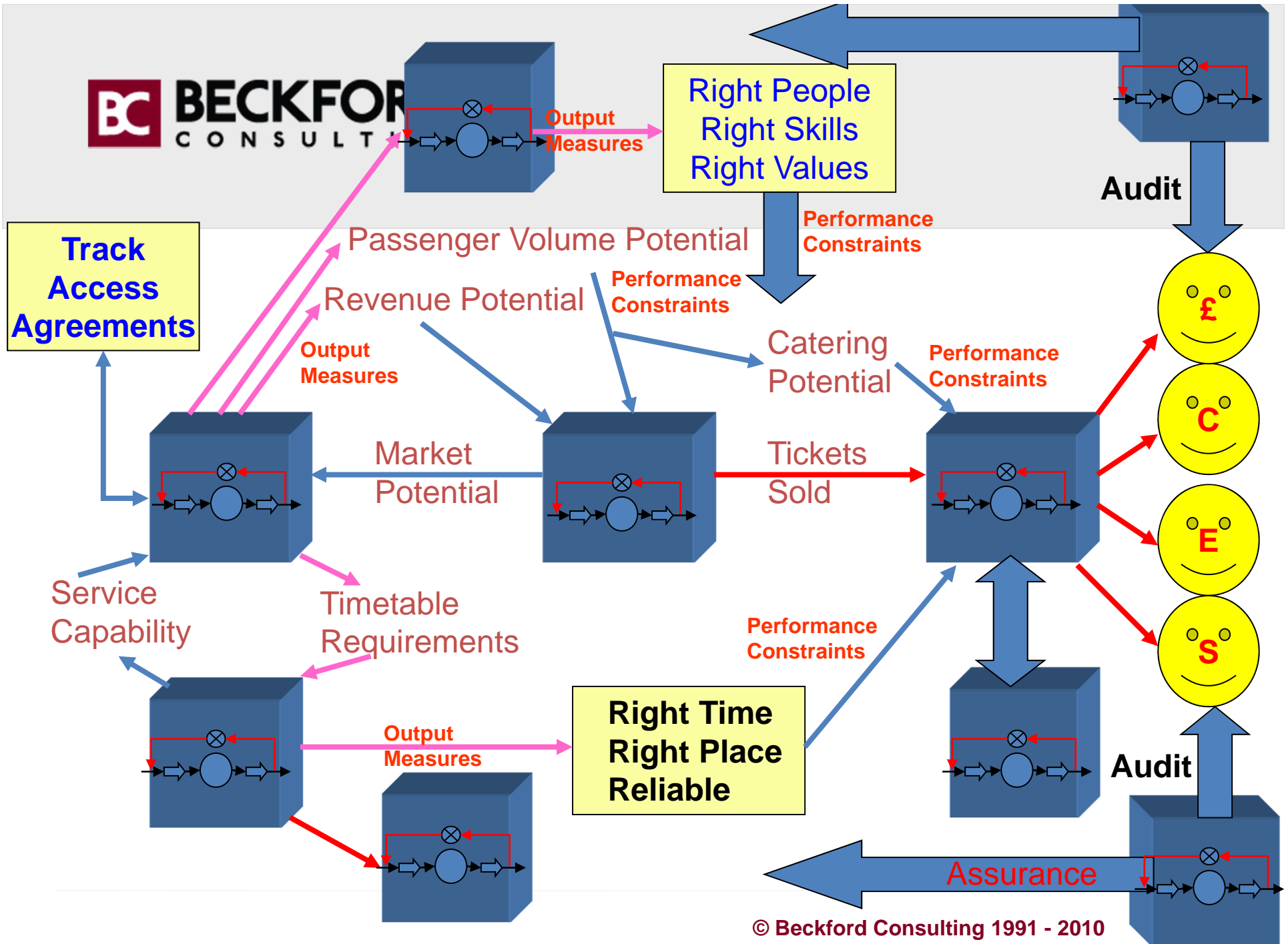
Performance Constraints

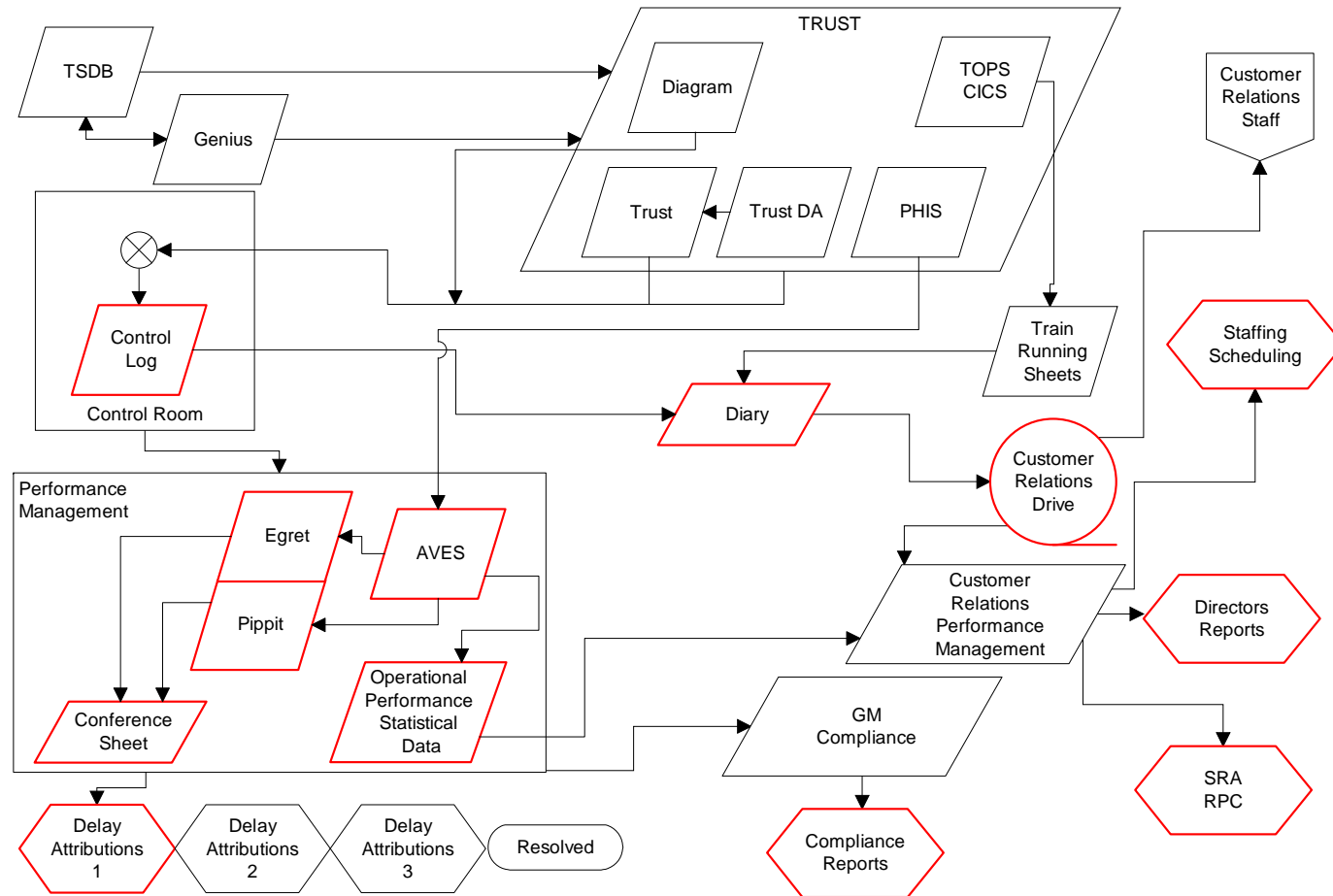
Output Measures

Audit

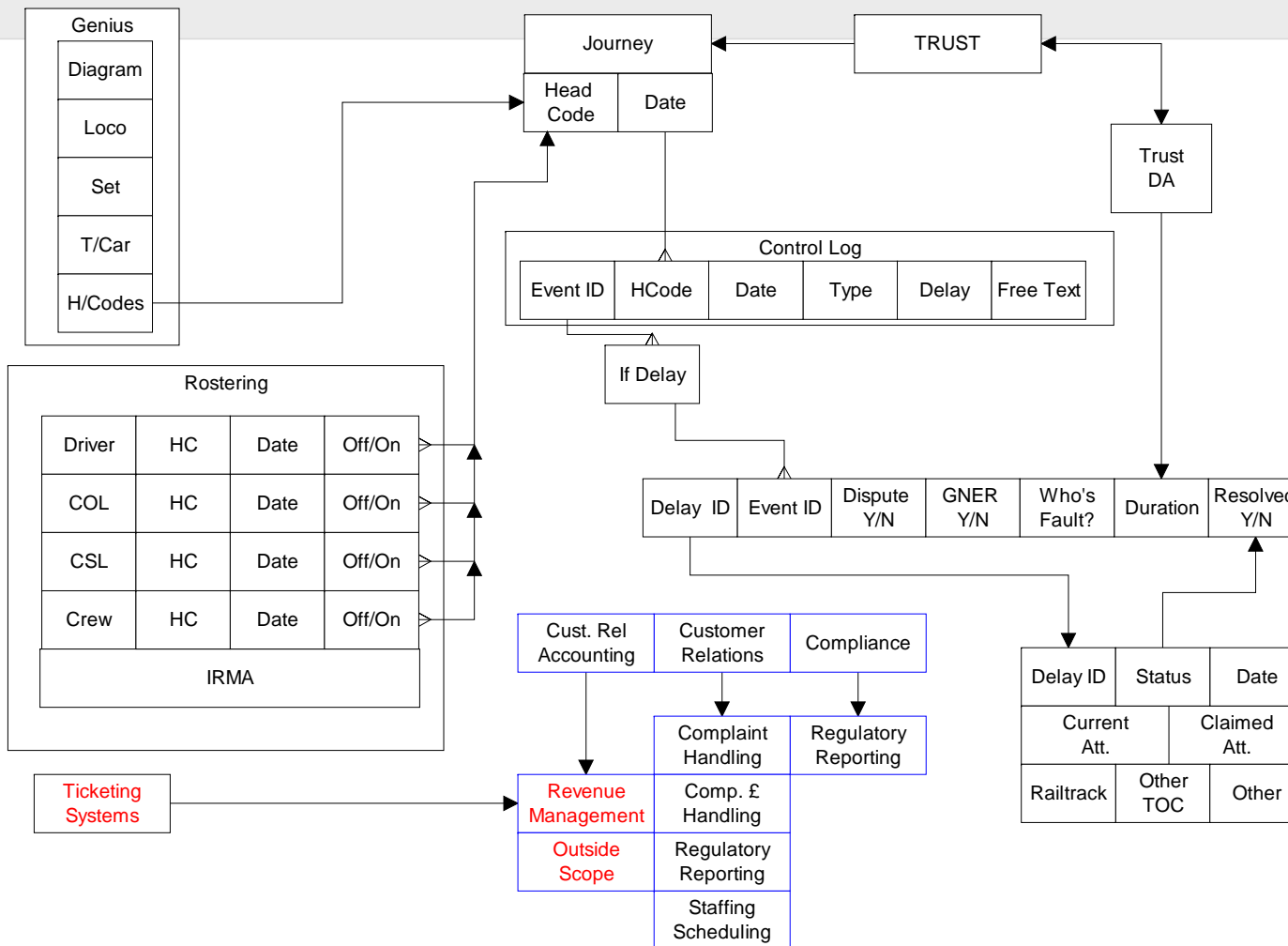
Assurance



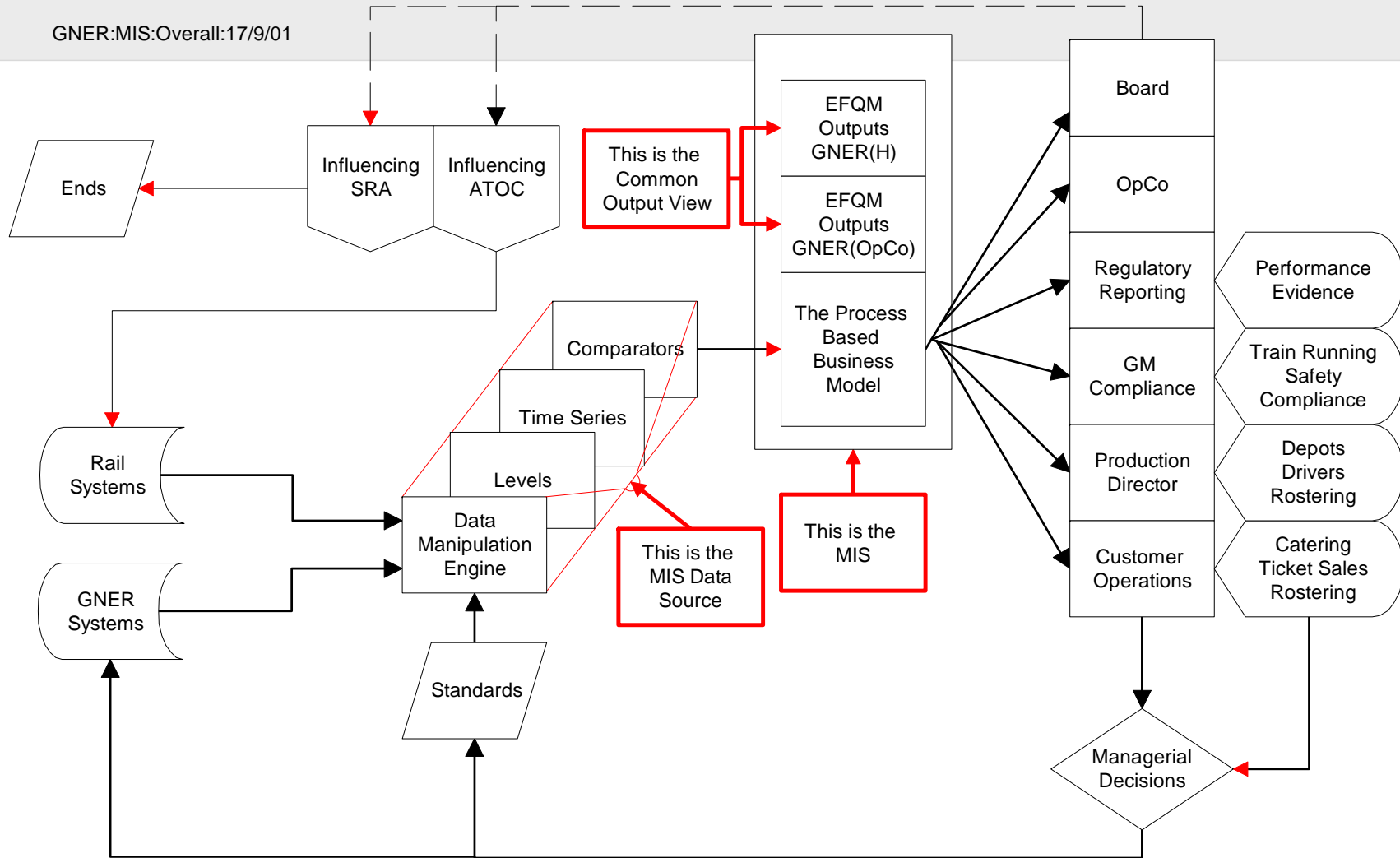




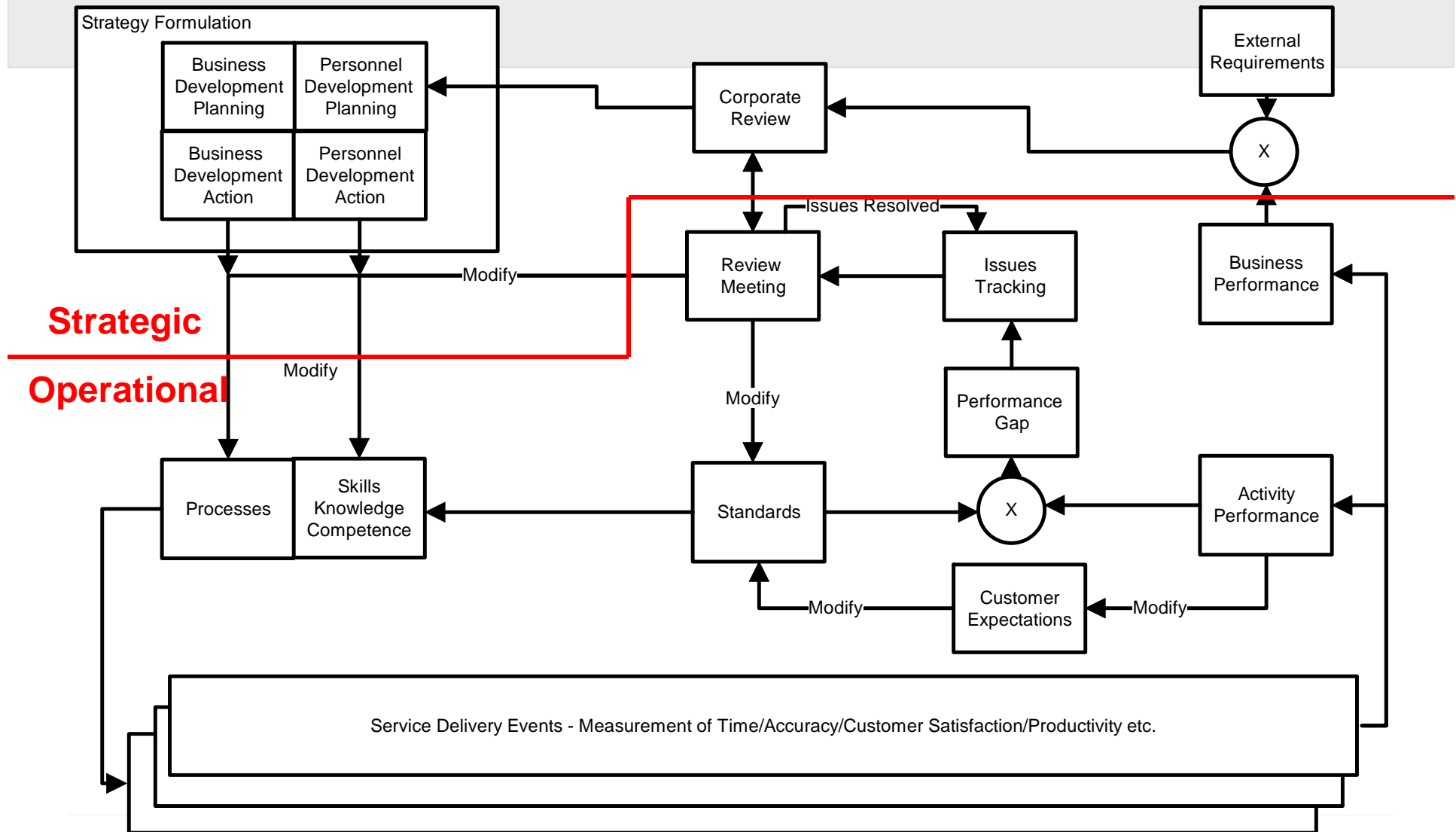
Managing the Journey

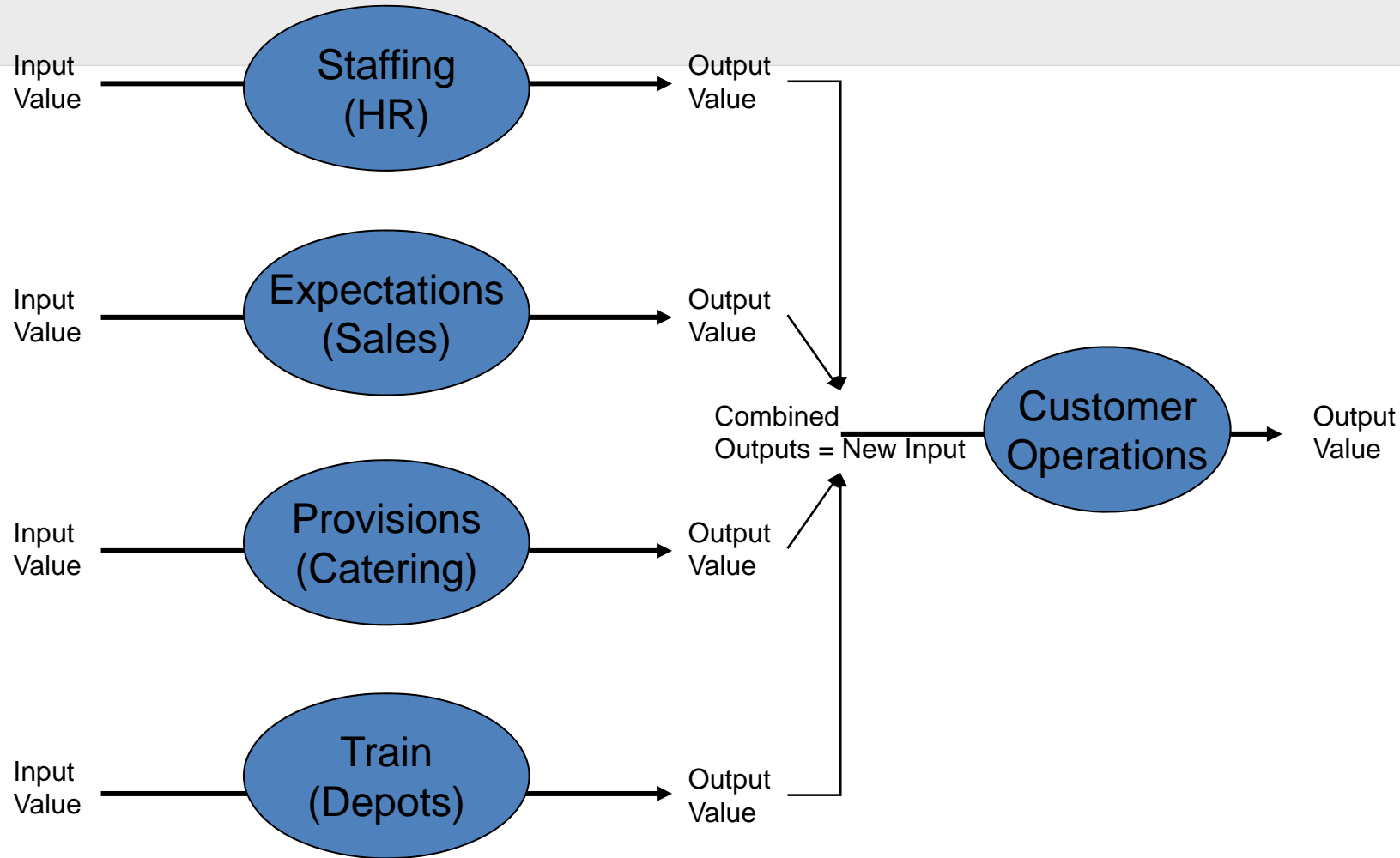


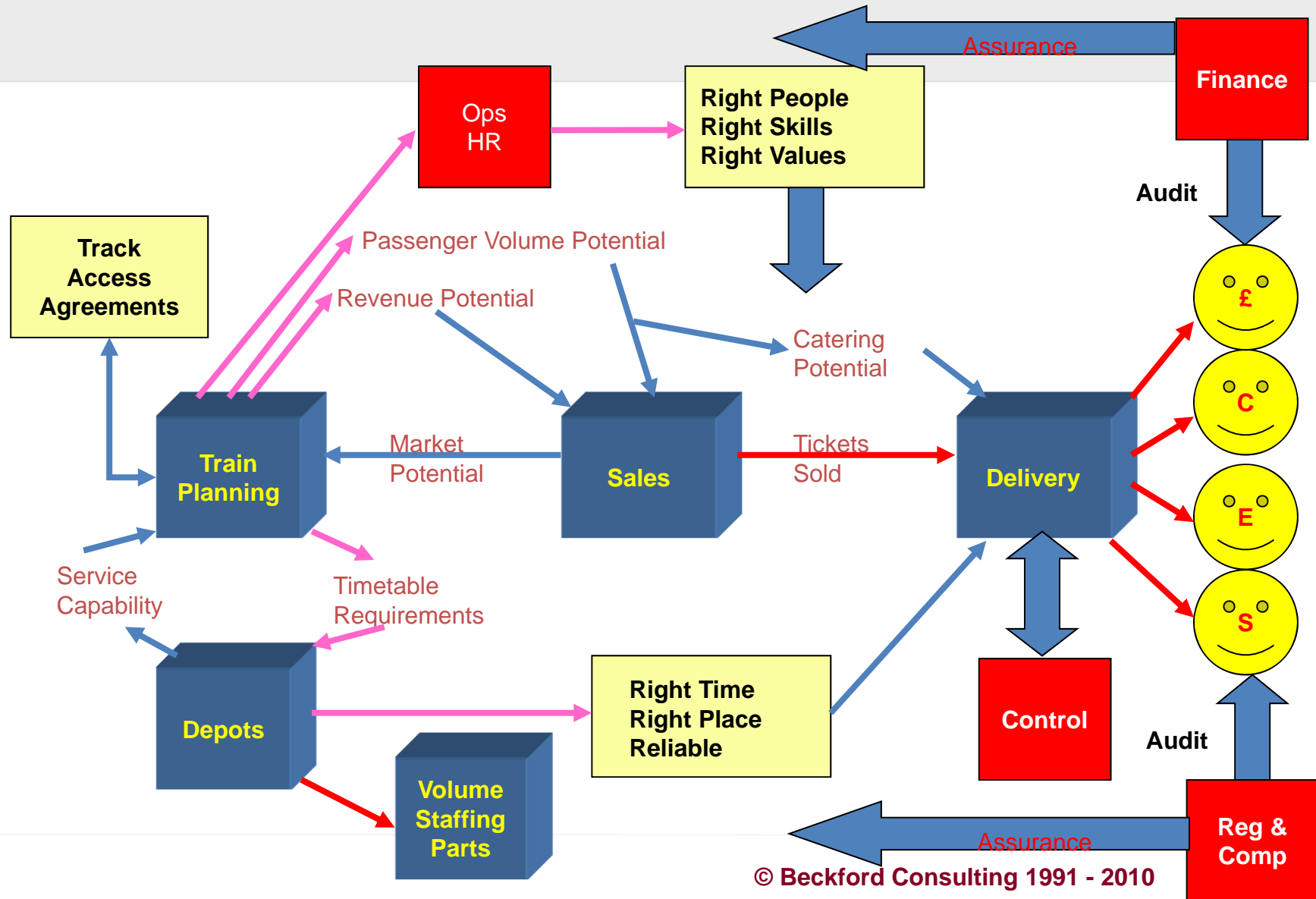
GNER:MIS:Overall:17/9/01

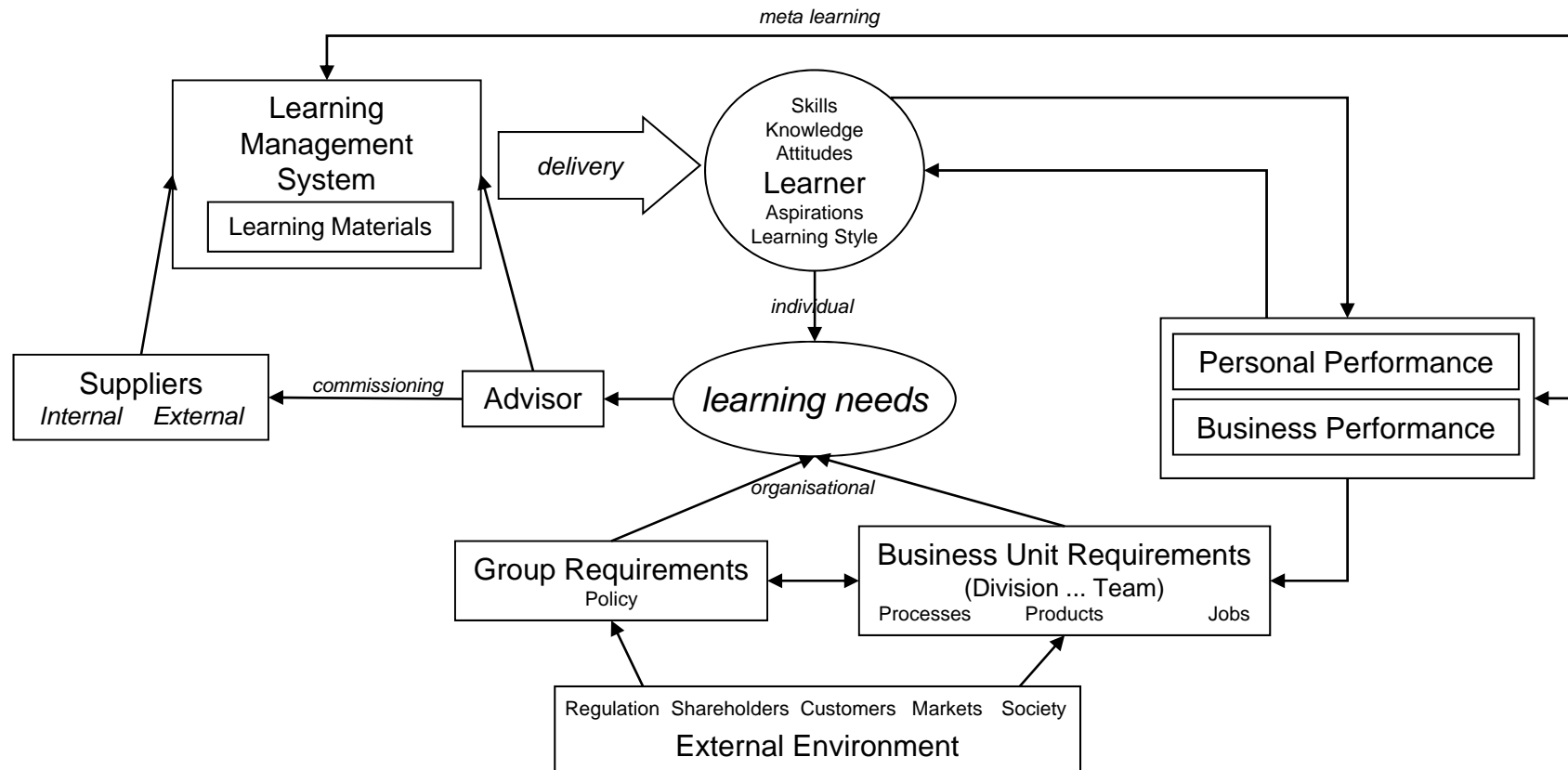


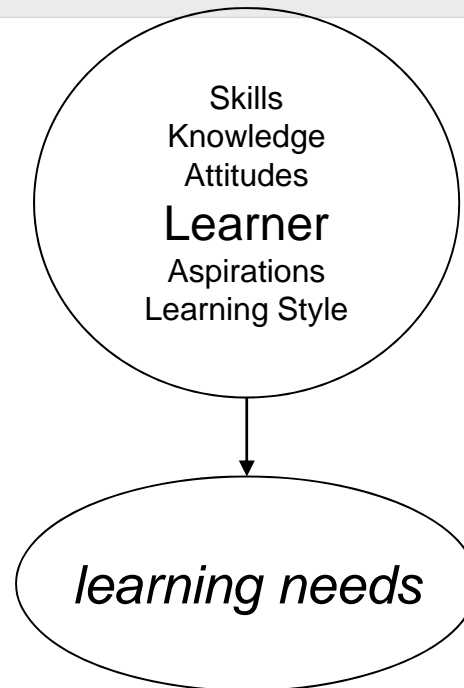
Recursive Information Structure







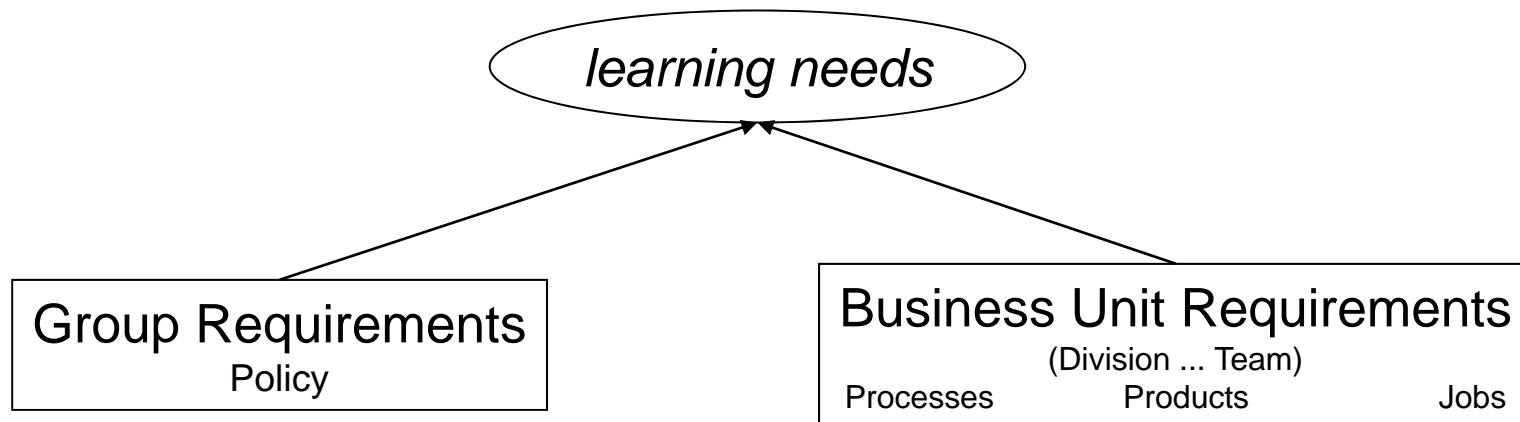




Measures

- *individual skills audit*
- *job design*
- *regulation and compliance requirements*
- *knowledge transfer*
- *customer feedback*
- *observation*
- *360° review*
- *assessment outcomes*
- *performance rating*

Organisational Learning



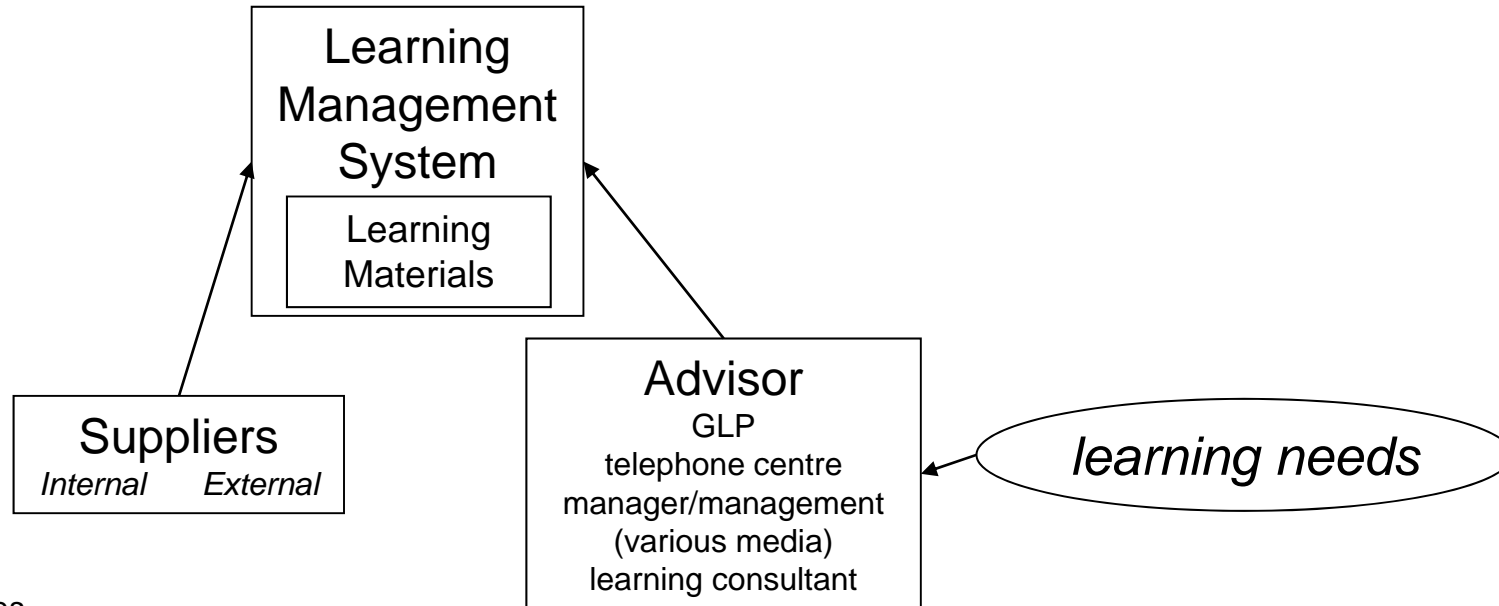
Measures

- requirements for job
- talent reviews
- succession plans
- products
- business unit priorities

- processes and systems
- acquisitions
- retention rate
- recruitment rate
- business unit training spend

talent management ????

Identify Learning Items



Measures

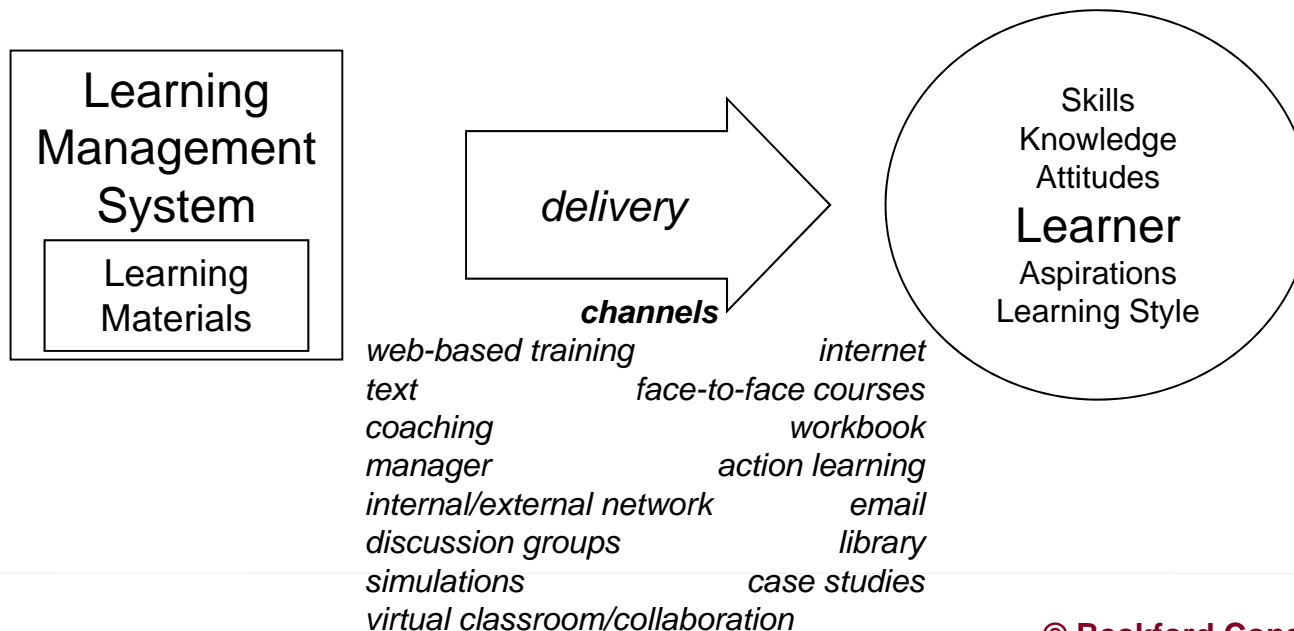
- number of interventions available
- interventions by business area
- interventions by topic
- interventions by access route (advisor)
- interventions by medium (WBT, workbook, course ...)
- internal development cost
- external development cost

- development against budget and resources used
- development by business area
- development by supplier
- requests by topic
- requests by medium
- face-to-face course availability
- system maintenance costs

Learning Delivery

Measures

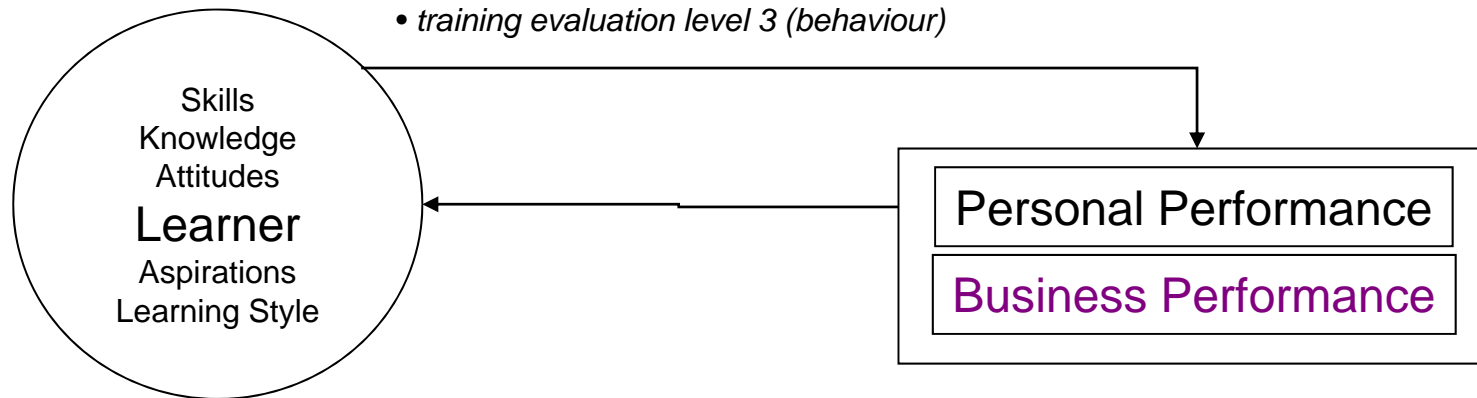
- *number of interventions*
- *delivery channel*
- *hours of learning*
- *learning evaluation (Kirpatrick levels 1-4)*
- *platform/system downtime*
- *platform access times*
- *WBT page size*
- *pre/post training assessment*
- *system error log/report*
- *number of users logged on*
- *cost of delivery*
- *emotional response to intervention*
- *number of learning interventions accessed*
- *face-to-face course attenddance*
- *face-to-face course cost*
- *face-to-face course cancellations*
- *face-to-face delivery days*
- *calls to Help Desk*



Personal Performance

Measures

- *project outcomes*
- *financial results*
- *line manager observation*
- *performance rating*
- *salary increase*
- *bonus payments*
- *internal/external awards*
- *360° feedback*
- *customer feedback*
- *training evaluation level 3 (behaviour)*



Business Performance

Measures

- *profitability*
- *cost:income ratio*
- *sales*
- *cost control*
- *team performance*
- *client surveys*
- *training evaluation level 4 (results)*

Personal Performance

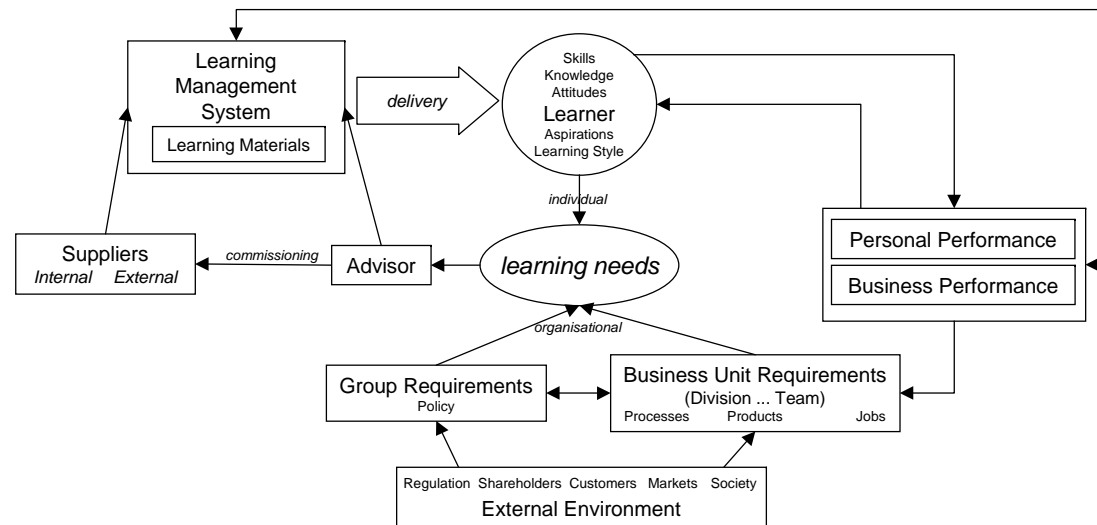
Business Performance

Business Unit Requirements

(Division ... Team)

Processes Products Jobs

meta learning



Measures

- *staff opinion survey*
- *exit surveys*
- *salaries*
- *promotions*
- *resources spent developing others*
- *succession plans*
- *staff numbers (heads, FTEs)*
- *pulse surveys*
- *talent reviews*
- *management*
- *initiative outcomes*
- *post implementation reviews*
- *training evaluation - results (level 4)*
- *staff turnover*
- *absence rates*

- Aylesford Newsprint
- InHealth Group