

# *Tomorrow's Hotspots*

## *Identifying Commercial Opportunities from Science*

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5/08/02

## *Framing the Question:*

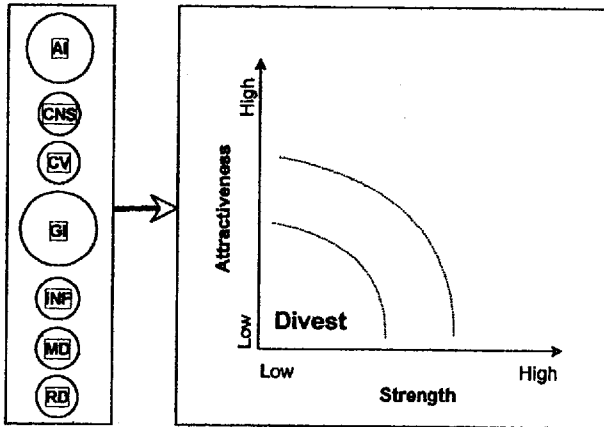
*how to re-allocate \$1B in Pharmaceutical R&D  
budget following the 1989 merger of  
SmithKline and Beecham?*

**Step 1. Portfolio Analysis**  
**(How do you decide what programs to kill?)**

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# Portfolio Analysis

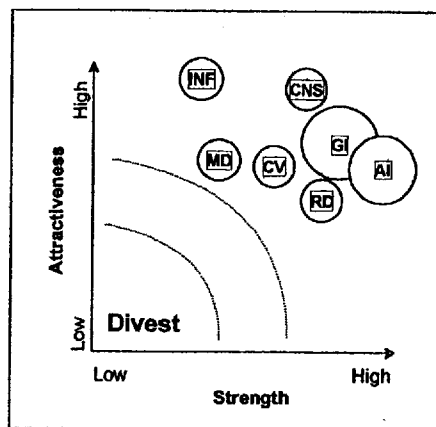
Which of the six areas should be divested?



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# Portfolio Analysis

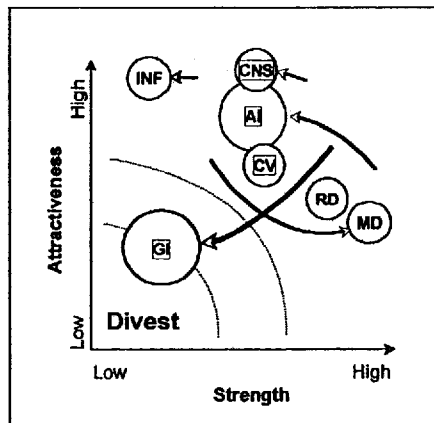
What Happens when you use Experts (i.e. McKinsey)?



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# Portfolio Analysis

*What Happens when you use Objective Measures?*



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## *Framing the Question:*

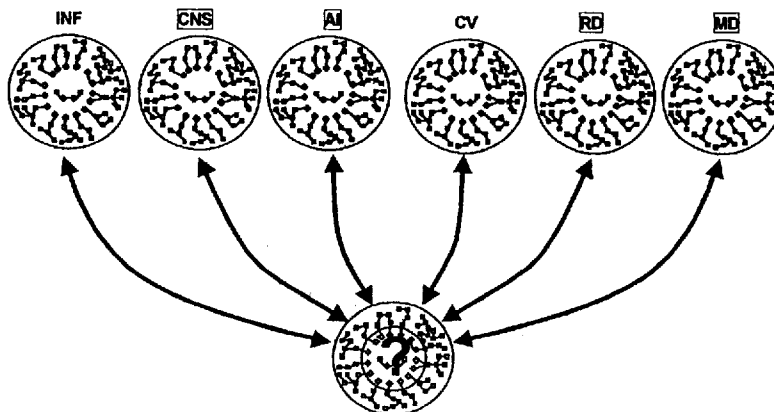
*how to re-allocate \$1B in Pharmaceutical R&D budget following the 1989 merger of SmithKline and Beecham?*

**Step 2. Platform Analysis**  
*(How do you decide what programs to start?)*

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# Platform Analysis

Which new areas should we invest in?



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# Platform Analysis

SKB (1991) New Areas to Invest In:



## Gene Science

core is technology driven  
core focuses on genomics  
core-boundary link on bioinformatics



## Cell Signaling

core is science driven  
core focuses on cell to cell interaction  
core-boundary link on cell receptors



## Analytical Biochemistry

core is technology driven  
core focuses on combinatorial chem.  
and high throughput screening  
core-boundary link on detector  
and analytical technology

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## Lessons Learned

- *Timing*
  - *Divesting before Reinvesting*
- *Objective Analytical Methods*
  - *Exploratory vs. Confirmatory Analysis*
- *Process*
  - *Dialectic relationship between (valid) objective and (inter)subjective methods*

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## Bibliography: Science Mapping

### Theory:

Kuhn, Thomas S. 1970. *The Structure of Scientific Revolutions*.  
Chicago: Univ. of Chicago Press. 2nd Edition. Pp. 174-181

### Analytical Methods

Healy, P., H. Rothman & Paul Hoch. 1986. *An experiment in science mapping for research planning*. *Research Policy*. (15). 233-251.

Ashton, B. & R. Klavans (eds.) *Keeping Abreast of Science & Technology: Technical Intelligence for Business*. Battelle Press. 1997.

### Case Study

Noring, P.M., J. Herring, W. A. Rosenkranz, Jr., Marcia Stellpflug & Stephen B. Kaufman. *Putting Competitive Technology Intelligence to Work*. *Research-Technology Management*. September-October. 2000.

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