

Contemporary Engineering 1990 - present +

Environment: depletion modest except: petroleum

waste, toxic, non-toxic, now more isolated,
Safe, inert form

⇒ Conservation, social control

recycling : design for
entire life & death cycle
of products

globalization : outsourcing, jit
supplies from other countries
intl standardization

design : material efficiency,
energy eff.

Contemporary Eng. 1990-present +

Environment: depletion moderate except petroleum
toxic, non-toxic wastes, now more isolated

Conservation, social control (much tighter in this period)

Recycling: design for total life-death cycle
of products, material and energy efficiency

Globalization

more with less
development - growth

Eng. education: reliability, ethics, simulation

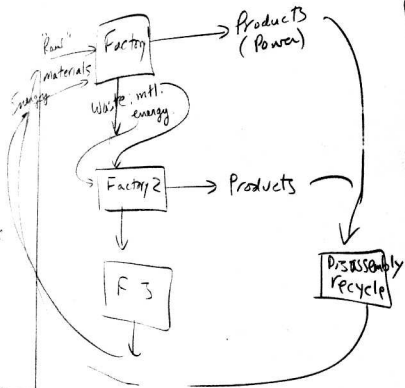
Eng. $\leftrightarrow$ Society — higher expectations

tighter clearer limits

Device decline: mining, shipbuilding.

Engineering: primarily concerned with materials, energy information

Windmills



Prospects for
Closure

Sociotechnical
interaction

Response to societal
needs/desires

Transition to sustainable
development