Integrated Auditing

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Organization Management

- Control era
  - Define characteristics, conditions, and pollutants. Inspect to see if actual agreed with specifications and requirements.
- Assurance era
  - Define processes to achieve results and make sure those processes are being followed. (Say what you do and do what you say.)
- Management era
  - Develop organization systems to achieve results and provide resources to achieve success.
- Integration era
  - Combine quality, environment, safety, etc. into a holistic view.

Good and Evil

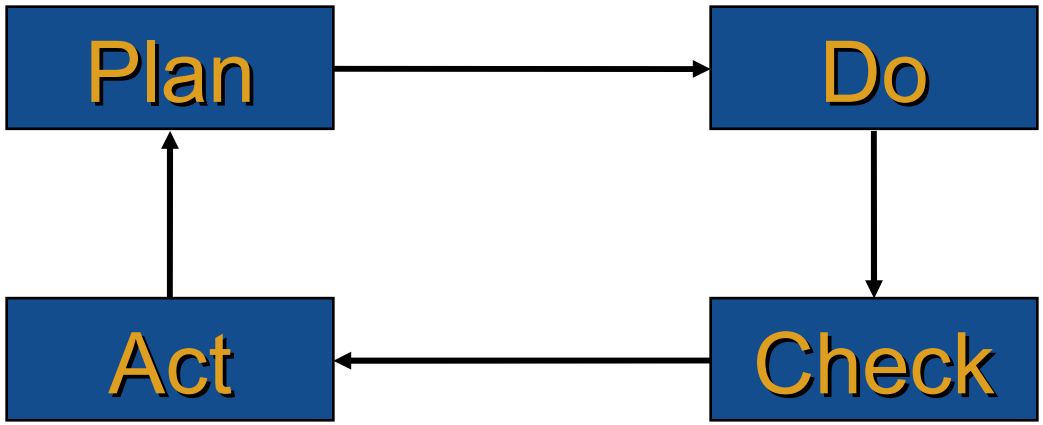
- Some systems **promote** Good
  - Quality management tries to achieve excellence, satisfaction, delight.
  - Financial management tries to improve efficiency.
  - Human resource management tries to maximize people resources.

Good and Evil

- Some systems **prevent** Evil
  - Environmental management tries to prevent harm to the planet.
  - Safety management tries to prevent harm to people.
  - Security management tries to keep bad guys away.

Good and Evil

However, it all comes down to PDCA (Plan-Do-Check-Act)



Quality Management Principles

- Plan
  - Identify item or service characteristics (form, fit, function)
  - Define methods, material, and machines to make or deliver that product
  - Define the systems in which the product is made or delivered
- Do
  - Provide people, equipment, material and infrastructure to make or deliver the product
  - Follow the defined methods
- Check
  - Measure progress in achieving defined products, processes, and systems
- Act
  - Reduce differences between desired and actual states
  - Make things better

Environment Management Principles

- Plan
  - Identify pollutants and their sources
  - Define ways to reduce (or eliminate) pollutant generation
  - Define ways to remove existing pollutants from the biosphere
- Do
  - Follow the defined methods to reduce and remove pollutants
- Check
  - Monitor operations for presence of pollutants
  - Monitor implementation of defined methods and systems
- Act
  - Reduce differences between desired and actual states
  - Generate fewer pollutants

Safety Management Principles

- Plan
  - Identify hazardous energies and their sources
  - Define ways to reduce (or eliminate) hazardous energy sources
  - Define physical and administrative barriers to contain hazardous energy sources
- Do
  - Follow the defined methods to reduce and remove hazards
- Check
  - Monitor operations for presence of hazards
  - Monitor implementation of defined methods and systems
- Act
  - Reduce differences between desired and actual states
  - Make things safer

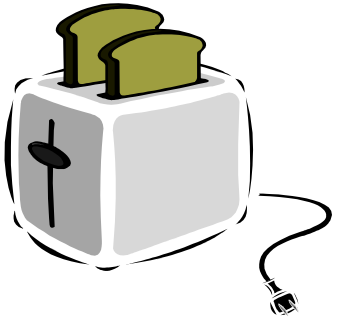
Application to Auditing

- Let's see if we can apply this concept of *sameness* to auditing
- Let's also use the modern process approach
- Let's make it useful to the organization

Step 1: Define the Product

These are the 4 Kinds of Product:

- Tangible manufactured goods



- Tangible processed items

- Software instructions

- Service activities

Step 2: How is it Made?

Processes Make Everything!

A change occurs

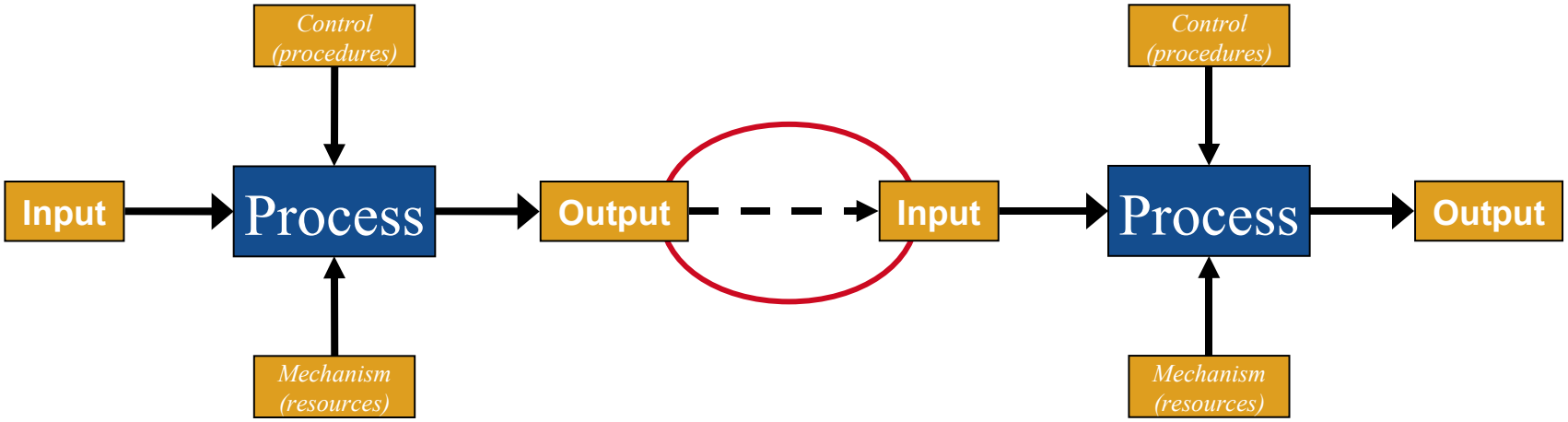
3 Kinds of Business Processes:

- Factory processes
  (also called product realization processes)
- Business support processes
  (also called administrative processes)
- External interface processes
  (also called customer and supplier processes)

Products are the result of processes

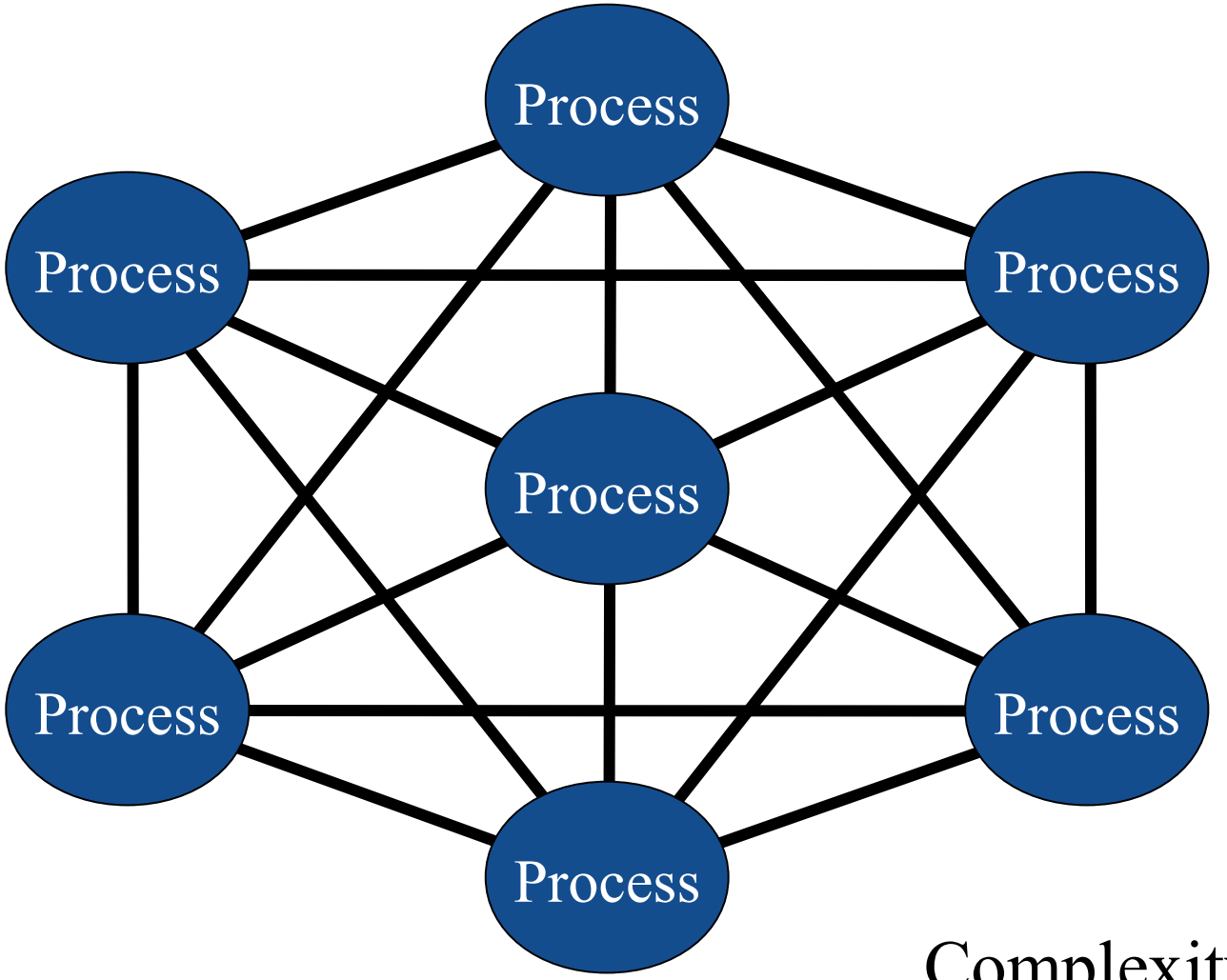
So, What is a System?

Systems are Linked Processes



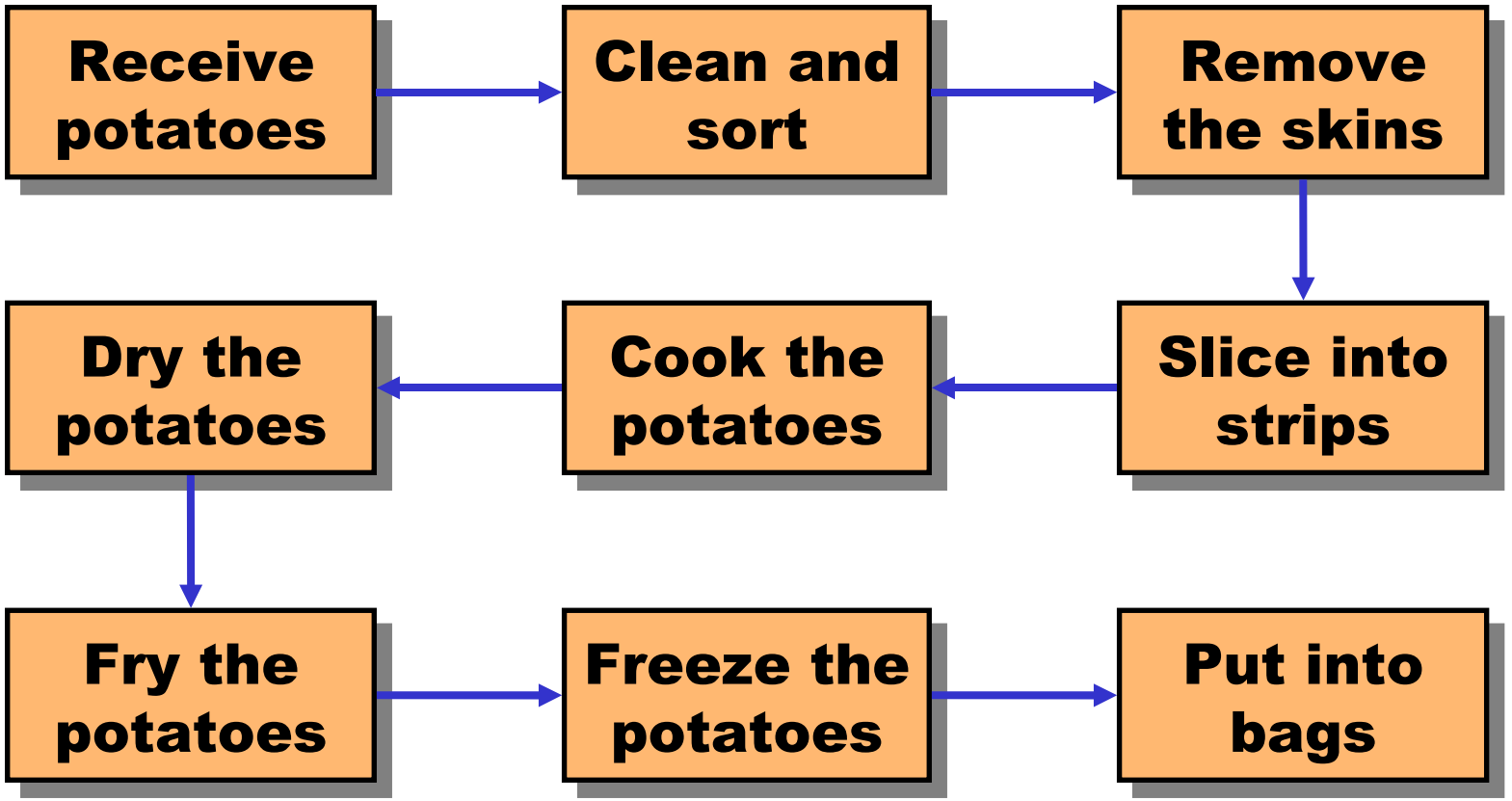
System: Processes working together to achieve a common goal.

Systems are Linked Processes



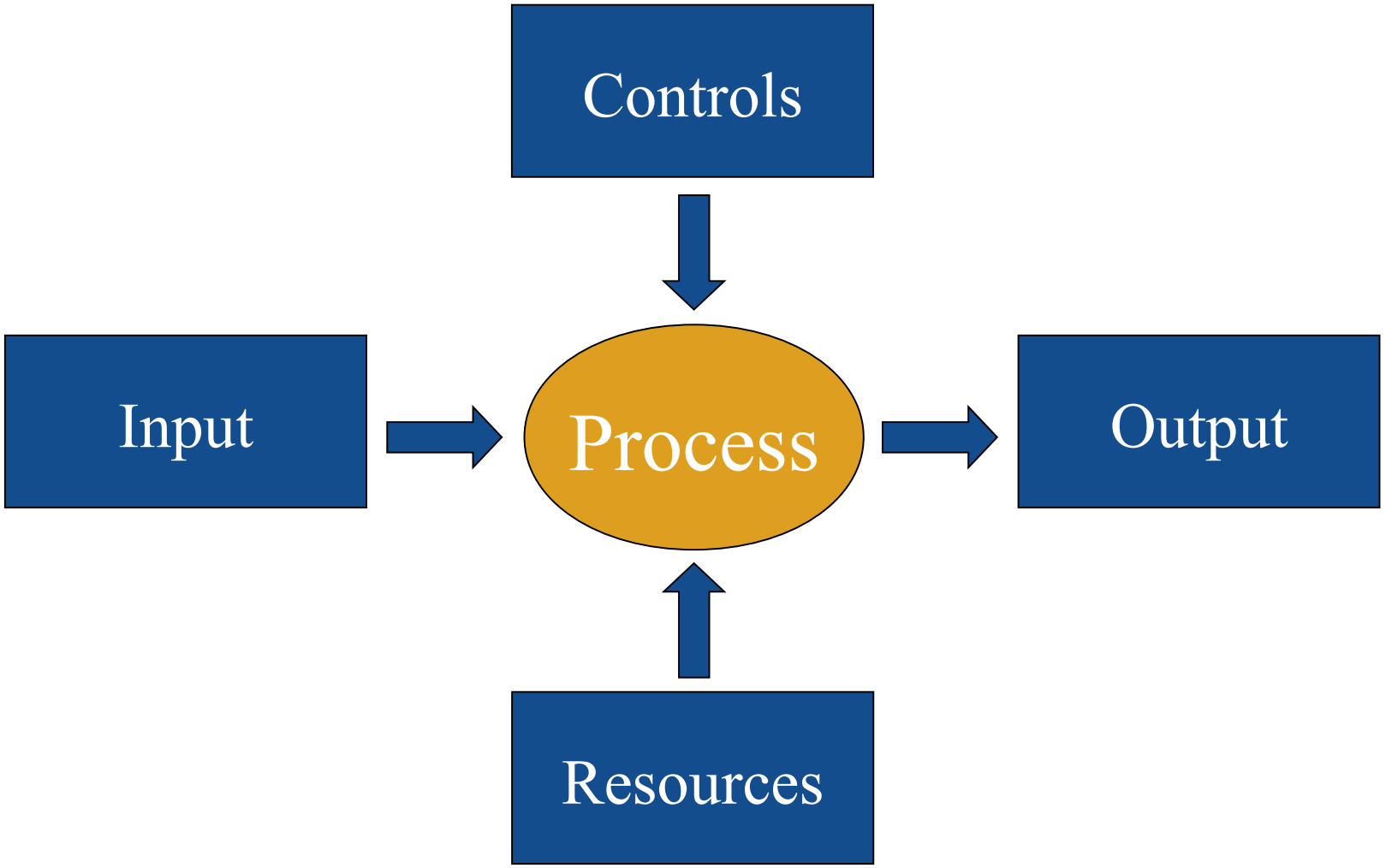
Complexity rules!

Step 2: Flowchart the operations

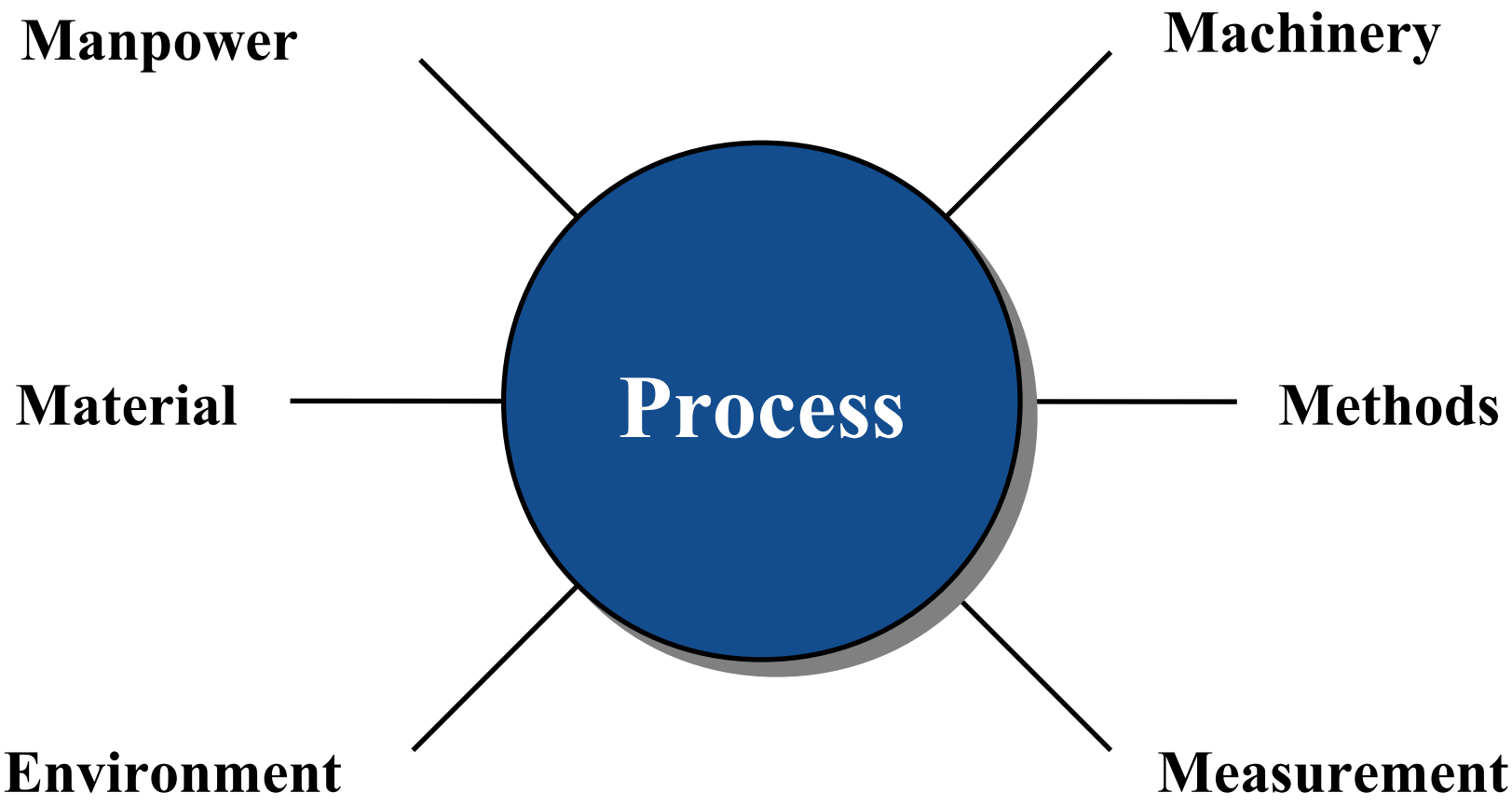


Step 3: Understand Processes

Universal Process Model



Universal Process Affecters

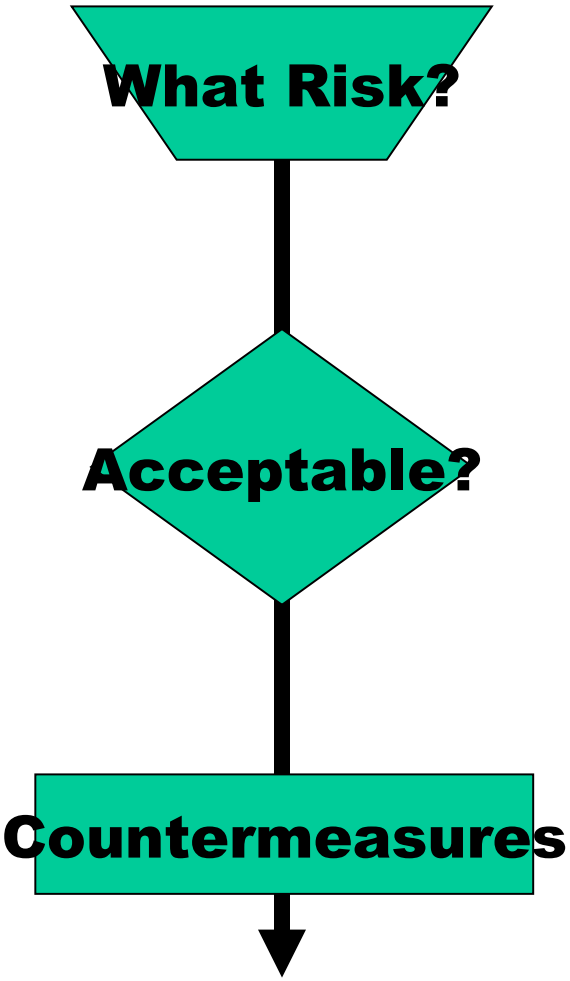


Universal Process Affecters

- **Methods**: These are the instructions we provide for the task. Often called *documents*.
- **Material**: These are the things used by the process.
- **Manpower**: (and womanpower!) These are the human competencies needed.
- **Measurement**: These are the data taken of the process and their use.
- **Machinery**: This is the equipment used to perform the action.
- **Environment**: These are the outside influences on the process. (Not the same as *green*.)

General Risk Model

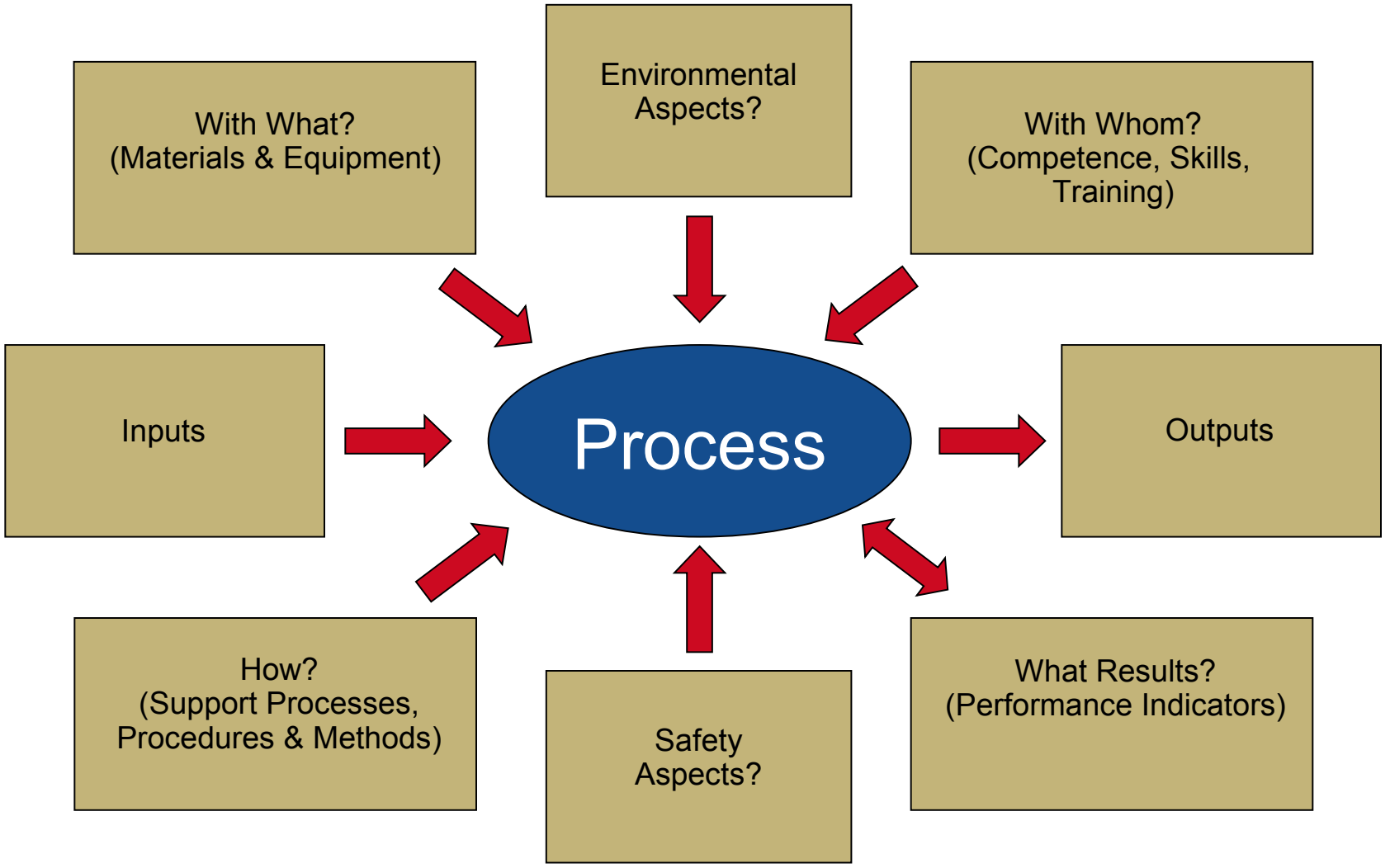
- Define risk
  - Qualitative
  - Quantitative
- Judge risk
  - Risk analysis
  - Acceptable and unacceptable risk
- Provide countermeasures
  - Barriers (physical and admin)
  - Reduction (process design)
  - Transfer (sell to someone else)



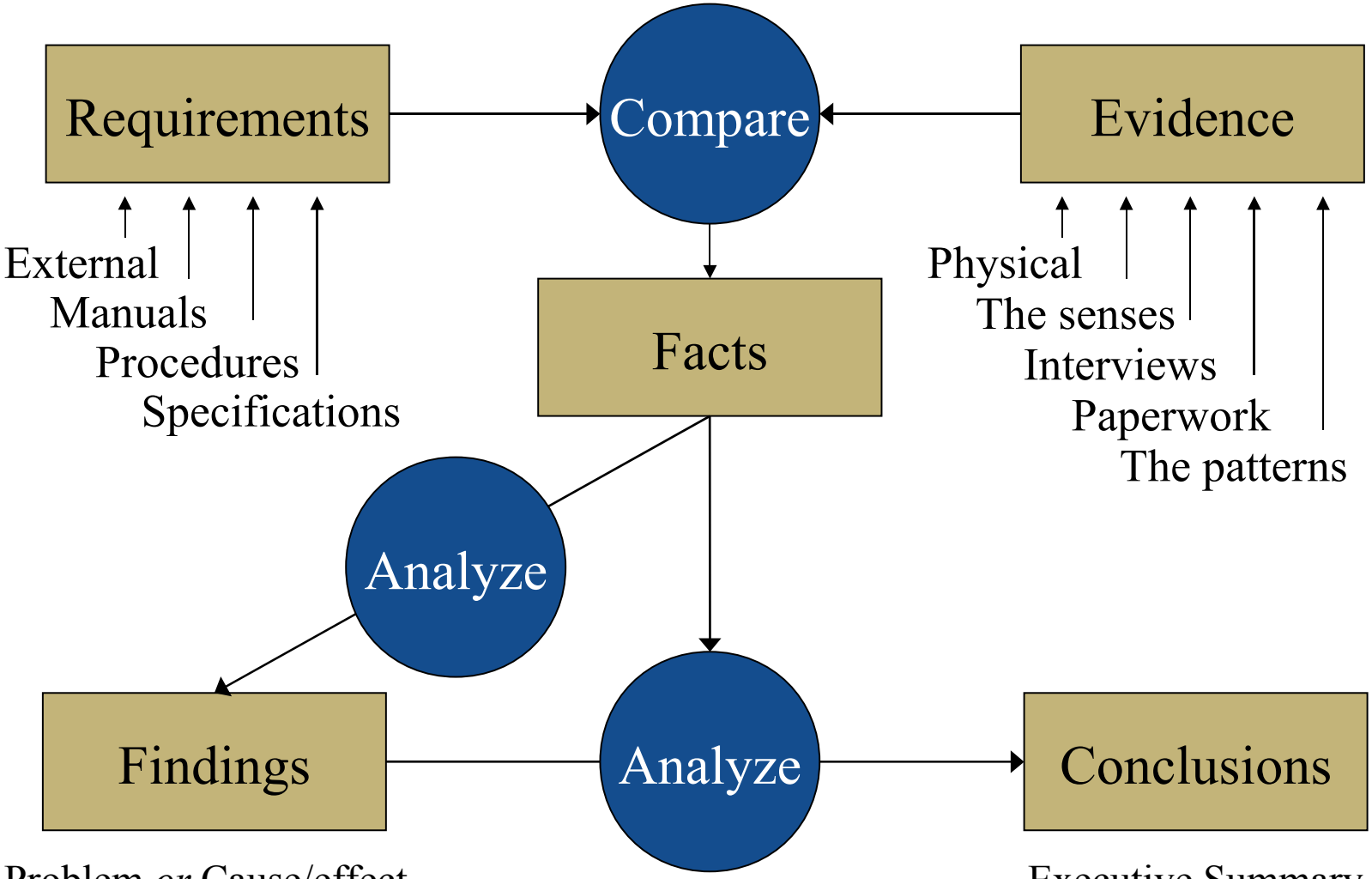
Whoa! Now It's Too Much!

- How about something combining all – yet friendly?

Step 3: Modified Turtle Diagram



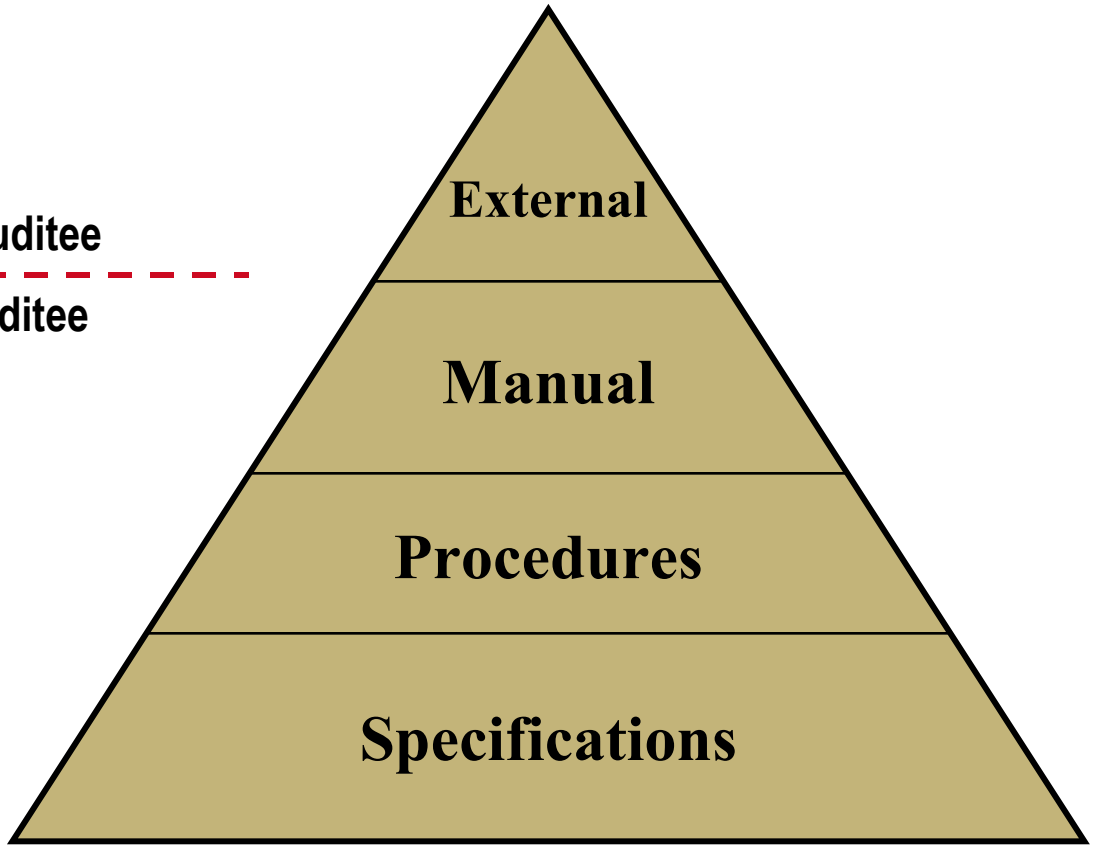
Step 4: Define Information Needs



Requirements are Documents

External to the auditee

Internal to the auditee



System

Process

Product

External Sources of Documents

External - from outside

- National regulations
- International regulations (export)
- National and international standards
- Industry codes and standards
- Package labels
- Corporate policies
- Customer requirements

Internal Sources of Documents

Internal - within the firm

- Functional manuals (quality, safety, research, production, accounting, etc.)
- Administrative procedures
- Standard operating procedures
- Production planning sheets
- Job safety sheets
- Inspection plans
- Software (process and alarm) settings
- Lock-out/tag-out sheets

Objective Evidence

- Physical
- Senses
- Paperwork
- Interviews
- Patterns

Right side of the audit model

Step 4: Define Information Needs

With What?
(Materials & Equipment)

- Feed hopper
- Bagged pellets
- Mixing paddle

Checklist Questions

- Power off?
- Cover placed on stand?
- Bag label checked?
- Respirator worn?
- Filled to ¾ mark?

Read Documents

- Operating instructions
- Sanitation standards
- Production run sheet
- MSDS hazards

Progress So Far

- Step 1: Define the products
- Step 2: Define the processes by flowcharting
- Step 3: Study the processes through modified turtle diagrams
- Step 4: Define information needs (objective evidence)

For all, we combined *quality*, *safety*, and *environment*.

Step 5: Gather Objective Evidence

- This is the fieldwork and starts after the opening meeting.
- You need to walk the processes (tracing) and interview the people performing the tasks. (You go to them.)

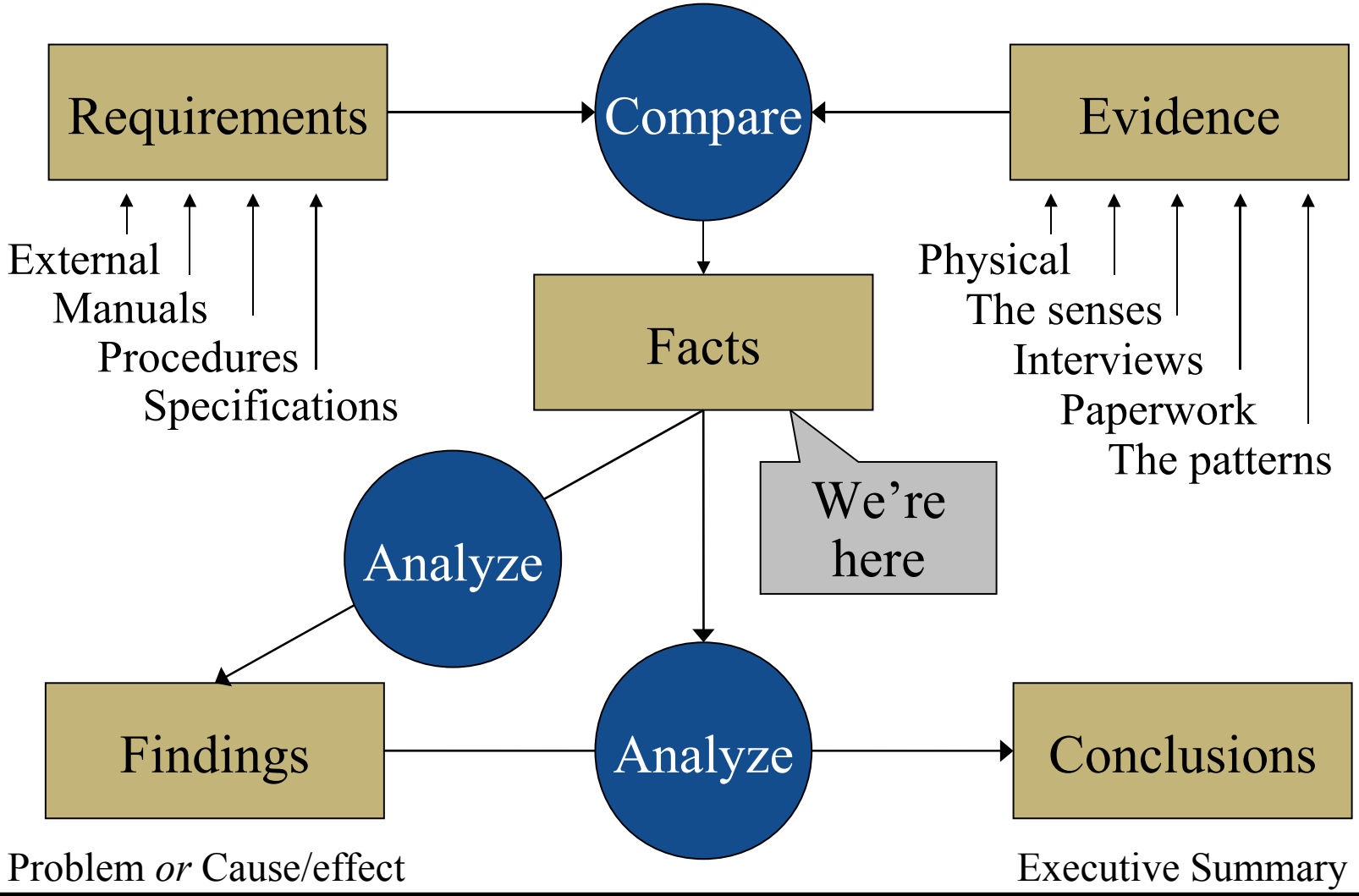
Gather Data, for example:

- Computer network was down for a total of 25 minutes during the month of July.
- Tellers backed up data for the seven shift changes examined.
- Hill Street branch experienced 3 cash machine paper receipt jams in June.
- Generic deposit slips were available at all teller stations.
- Vault lights are left on all night.
- Floors are wet-mopped only when customers are not present.

Gather Data, for example:

- 6 of 48 overhead lamps were non-functional at the Charles Circle branch on Friday.
- All tellers are examined for math and communication skills prior to hire.
- Backup server was loaded with out of date data files on July 12.
- Cars using drive-in stations back up into the street.
- Bill sorting machine malfunctioned on July 3 and again on July 9.

General Model for Auditing



Data Dump

GOOD

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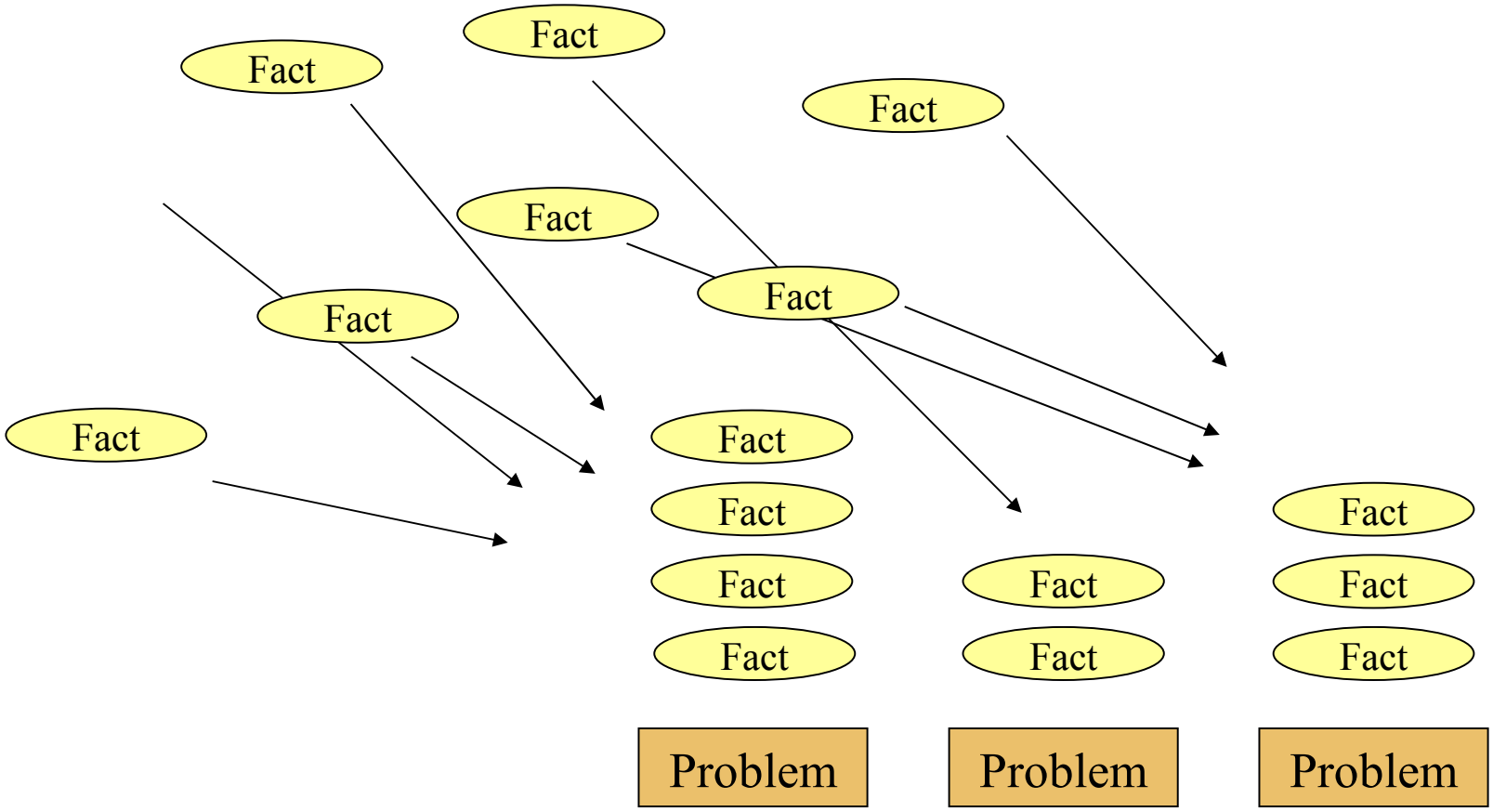
Step 6: Data Chunk



Sorting Our Audit Data

Equipment maintenance

- Network down
- Backup server data
- Bill sorting machine
- Doors, locks, and keys
- Cash machine jams
- False security alarm

Teller competencies

- Confusing debit and credit
- Cash drawer daily audit

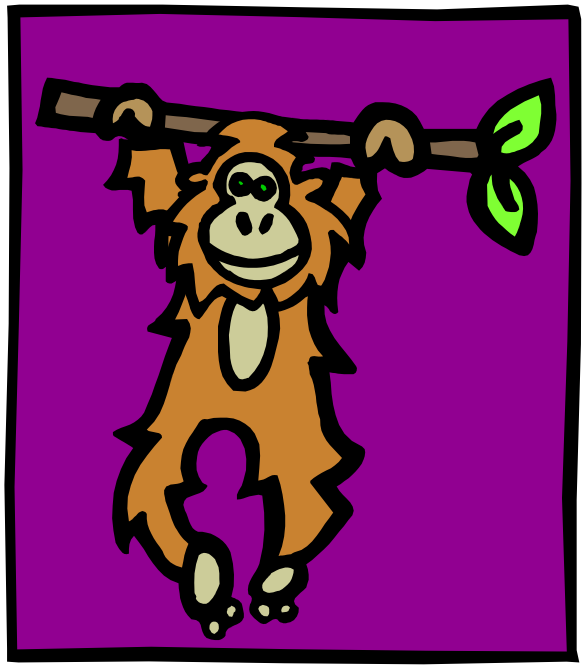
No pattern

- Key-in entry mistake
- Coins falling out of rabbit
- Cars backed out in street

This Becomes a Finding

Turn the piles upside down:

- Statement of the system control problem
  - Bad fact
  - Bad fact
  - Bad fact
  - Bad fact



Step 7: Present Conclusions

Equipment is not routinely kept in proper working condition.

- Computer network was down for a total of 25 minutes during the month of July.
- Backup server was loaded with out of date data files on July 12.
- Hill Street branch experienced 3 cash machine paper receipt jams in June.
- Bill sorting machine malfunctioned on July 3 and again on July 9.
- Three branches experienced entry door lock jamming this year. One resulted in a key breaking.
- Oak Lawn branch experienced a false security alarm on July 20. Police responded.

This is called a *finding sheet*

Step 8: Do Corrective Action

- Pretty much the same for all management systems
- Remedial action for the symptoms (bullets)
- Corrective action for the disease

The Process Approach to Audits

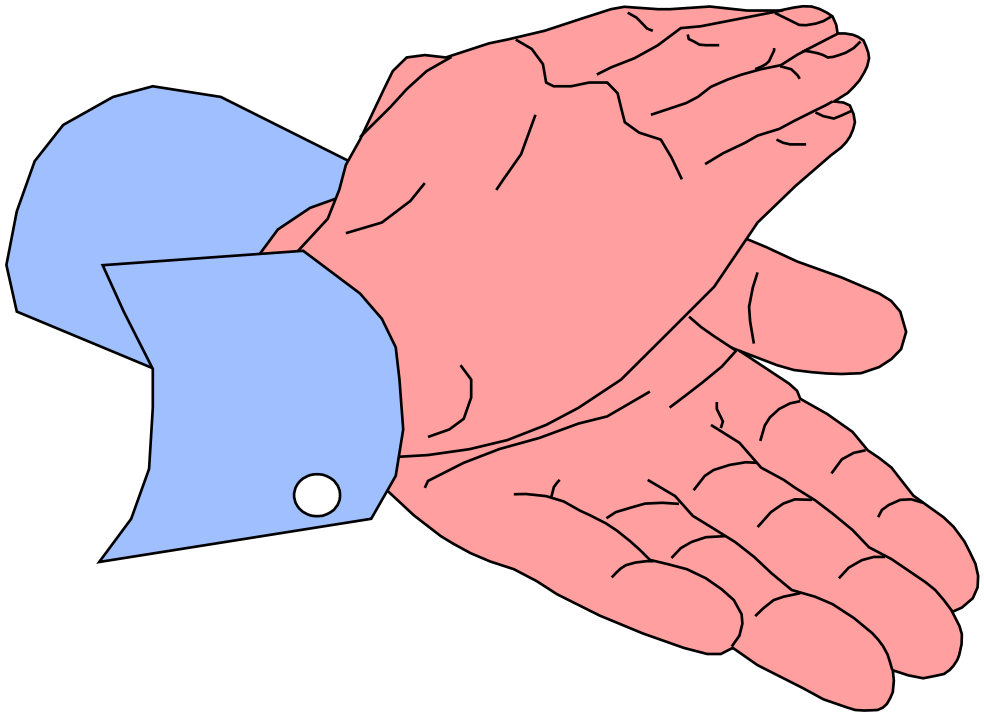
- Step 1: Define the products
- Step 2: Define the processes by flowcharting
- Step 3: Study the processes through turtle diagrams
- Step 4: Develop objective evidence needs
- Step 5: Gather objective evidence (fieldwork)
- Step 6: Analyze data to form finding sheets
- Step 7: Report your conclusions
- Step 8: Address problems through remedial and corrective actions

All done in an integrated manner.

Conclusion

- We must first understand the (business) processes to be audited and how they relate to the objectives of the enterprise.
- Quality, safety, and environment are all forms of risk management.
- We then gather field data on how those processes are being controlled to reduce risk.
- We present conclusions in a way that shows the way strengths and weaknesses affect the business.

Thank you for your kind attention!



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