Problems:

- High error rates
- Unanswered customer queries
- Slow product development lifecycles
- Usual automation methods don't yield dramatic results.
- Companies use technology to mechanize old ways to speed up processes.
- Job designs, workflows, organizational structures, and control mechanisms are from before the advent of computers.
- Geared towards **efficiency** and **control**

Reenigenner:

- use information technology to radically redesign business processes
- Recognize and reject old rules and find imaginative new ways
- All-or-nothing proposition
- Uncertain result
- No modest/gradual changes

Ford's Case Study

- Account payable processes
- Department had **500** people (North America only)
- Initially planned to reduce by **20%** by rationalizing and using computers
    - scanning paper invoices so they could be emailed
- **Mazda** had 5 people team
- Ford's team had was 5 times large
- Ford didn't blame to unrelated causes
- Analyzed **current processes:**
    - Purchasing dept sends purchase order
    - Material control sends receiving document
    - Vendor sends invoice
    - AP document checks if all documents match. (14 data items)
    - Incase of mismatch, investigation, payment on hold, document regenerated
- **Solution:**
    - Prevent mismatches
    - **Invoiceless processing**
    - Purchase dept enters information into an online database
    - Receiving clerk checks for a corresponding outstanding order in database
    - Receiving clerk enters transaction if accepted
    - Only 3 items matched: part number, unit of measure and supplier code.
    - Automatic matching and computer prepares the check
- **75% reduction**

MBL Case Study

- Insurance application processing
- Earlier application had to go through long steps:
    - Credit checking, rating, quoting, underwriting,
    - **30 steps, 5 departments, 19 people**
    - Minimum time: **24 hours** (5-25 days turnaround)

    - Actual time spent: **17 mins**
    - Each department performed specific task
- **Solution:**
    - Different kinds of info available to one person
    - Expert systems can help people with less experience
    - New position: **Case Manager**
    - Handled all responsibility
    - In tough cases, calls for assistance from senior underwriters, consultants
- **Application processing time: 4 hours** (2-5 days turnaround)
- Twice as many applications are processed now

Essence of Reengineering

- Discontinuous thinking
- Break away from outdated rules and boundaries and fundamental assumptions behind operations
- Simply automating isn't reengineering
- Business replete with old rules based on assumptions about tech, people, and organizational goals that no longer hold
- Work structures and processes didn't pace with changing tech, demographics, goals
- **Earlier: cost, growth, control**
- **Now: quality, service, innovation**
- Work defined as **sequence of narrow separate tasks** and complex mechanism to track progress
- **Industrial Revolution** ideology: specialization of labour and economies of scale
- **Imposing control** systems stems from postwar period:
    - Concern was to grow fast before going broke
    - Focused on: **cost, growth, control**
    - Well-educated people were rare, few people knew exactly about business
- Ingrained patterns: **fragmented and piecemeal**
    - Tunnel vision: People narrow their focus to department goals rather than process
    - Work handed from dept to dept, inevitable delays and errors
    - Managers try to piece together the fragments: adapt processes to circumstances.
- Break outmoded processes and design principles underlying them
- Requires looking at processes from a cross-functional perspective
    - Ford focused on goods acquisition; included purchasing, receiving and AP
    - Assemble all units that are involved in the process being reengineered and depend on the process.
- Team analyzes process until it understands what process is trying to accomplish
- Determine valuable steps in the process and enable new ones
- Team should ask **why** and **what if** to separate fundamental and superficial
- Requires new conceptualization of the business process

Principles of Reengineering

1. **Organize around outcomes not tasks**
    - Have one person perform all tasks for an objective or outcome
    - MBL example

    - **Electronics company: Customer service rep** oversees the whole process.
2. **Have those who use the output of process perform the process**
    - Specialized depts slow down processes, small purchases.
    - Expert systems and databases can enable teams to do more
    - Enabling customers to do some processes like repair
    - Minimal overhead as no coordination between performers and users required
    - Less performer required
3. **Subsume information processing work into real work that produces the information**
    - Organization that produces information also process it
    - Units for collecting and processing information:
        - Stems from idea of labour specialization and assumption that lower level people can't act on information
4. **Treat geographically dispersed resources as if they were centralized**
    - Decentralizing gives benefit to those who use it
    - But redundancy, bureaucracy, missed economies of scale
    - Databases and network can enable coordination, scalability, flexibility, service
5. **Link parallel processing activities instead of integrating their results**
    - Different units performing same function, requires coordination
    - Different units performing different functions that must eventually come together
    - Coordinate activities while in process rather than after completion
6. **Put the decision point where the work is performed and build control into the process**
    - Decision makers and monitors are separate from doers
    - Assumption: doers don't have time, knowledge, inclination and scope to take control
    - Pyramidal management layers need to compressed to flatten organisations
    - Hierarchy and slowness and bureaucracy with it is eliminated
    - **Vertical and Horizontal** compression go hand in hand
7. **Capture information once and at the source**
    - Repeated input leads to delays, entry errors, and costly overheads
    - Today, information can be stored in database and shared easily

Think Big

- Reengineering triggers many changes
- Job designs, organizational structures, and management systems must be refashioned
- New responsibilities, skills are introduced
- Career paths, recruitment and training programs, and promotion policies change
- Executive leadership with real vision, effort and strong backing required
- Reengineering is often disliked: confusing and changes what people are accustomed to
- commitment , consistency, and little fanaticism is required
- Imagination should guide implementation of technology