The **9 Key Elements** of Successful Plant Commissioning

**Element 1 - PLANNING -**

- Risk Assessment
  - e.g. HAZOP (Hazard and Operability Analysis)
- System Definition
  - P&ID Master Set
    - Latest Revision!!!
- Completion Prioritization
  - According Start-Up Sequence
- Software
  - e.g. ICAPS™ (Integrated Commissioning & Progress System)
- Special Hint
  - Tools
  - Equipment
    - e.g. Tool Kits
    - e.g. Steam Blowing Equipment
    - Tools
    - Equipment
  - Software
  - System Definition
  - Completion Prioritization
  - Risk Assessment
- Documents
  - Time Schedule
  - Organizational Chart
  - Checklists
  - Operating Manual
  - Pre-Commissioning Procedures
  - Commissioning Procedures
  - Safety Procedures
  - Security Procedures
  - Quality Control Procedures
  - Pre-Commissioning Team
  - Commissioning Team
  - Operating Team
  - Maintenance Team
  - Client's Team
  - Contractors
  - Vendors
  - Licensor
  - Support from Office
- Manpower
- Material
  - Blinds
  - Spool Pieces
  - Hoses
  - Additional Gaskets!!!
  - Sample Bottles
- Pre-Commissioning Team
- Commissioning Team
- Operating Team
- Maintenance Team
- Client's Team
- Contractors
- Vendors
- Licensor
- Support from Office

**Additional Gaskets!!!**

**Sample Bottles**

**OPERCOM™**

**e.g. Tool Kits**

**e.g. Steam Blowing Equipment**

**Blinds**

**Spool Pieces**

**Hoses**

**Additional Gaskets!!**

**Sample Bottles**

**Pre-Commissioning Team**

**Commissioning Team**

**Operating Team**

**Maintenance Team**

**Client's Team**

**Contractors**

**Vendors**

**Licensor**

**Support from Office**