DENTSPLY International

- Founded: 1899
- Headquarters: York, PA
- Employees: 11,600
- Revenue: $2.7 Billion

**Highlights:**
- Leader in dental consumables
  - Broadest portfolio in the global consumables market
- Focus on innovation and education
  - R&D: Over 50 clinical studies ongoing
  - 30+ significant new products annually
  - Training over 300,000 dentists per year
  - Over 2,500 patents
  - Sales in more than 120 countries
  - Infrastructure in more than 40 countries

Caulk Division – Milford, DE

- Founded – Camden: 1877
- Move to Milford: 1900
- Employees: 460

**Highlights:**
- Develops and Manufacturer
  - Composites
  - Cements/Adhesives
  - Impression Materials
  - Fluoride treatments
  - Disinfectants/Cleaners
  - Acrylic Technologies
- Focus on innovation and education
  - R&D: 20+ Associates
  - Develop and Launch 3+ new products per year
**Definition** - Innovation: Something new or different introduced.
- New Products
- New Processes/Technologies
- Lean/6 Sigma
- Employee Engagement
New Product Ideas

- Dentists
  - In-office observation
  - Key Opinion Leaders

- Competitors
  - New Products – competitive features/benefits
  - New Patents
  - New Regulatory Submissions
  - Market analysis

- Internal Scientists
  - New Technologies looking for an application

- Universities

- External Sources
Voice of Customer

- Voice of Customer
  - Minimum Requirements
  - Ideal Requirement
- Market Research Silent VoC - (e.g. Smartphone)
- Basic requirement, Enhancement, Excitement generator
- Product Characteristic - Features
- Appropriate Test Methods
- Is the Test Method Clinically Relevant (e.g. Handling)?
- Product Specification
  - Ideal Specifications
  - Competitor Specifications
Global Innovation Process (GIP)

**Stage Gate Model**

1. **Discovery**
   - What’s the idea?
2. **Proposal**
   - Financial Assessment
   - Markets
3. **Development**
   - Design Objectives based on the “Voice of the Customer”
4. **Validation**
   - Does the new product meet the defined needs of the customer?
   - Can we make the product consistently?
5. **Launch**
   - US, Canada, and EU
   - Asia, Middle East, Africa
   - South America

- Post Introduction Monitoring
  - Feedback from Clinicians
  - Academic Community
- **Strategy**
  - Marketing/Sales
  - Future Products
  - Portfolio Management
Design Verification/Validation

- Verify that ALL Design Criteria has been met
  - Product testing
  - User Feedback – Customer Preference
  - University Clinical Study - 6 months – 2 years

- Validate
  - Validate that the new product can be manufactured consistently within actual production environment
    - Design of Experiments – Understanding Worst-Case Conditions
      - Process/Equipment Settings
      - Operator to Operator/Shift to Shift
      - Raw Material Variations