

**IPAC-RS Extractables and GMP Workshop:  
Breakout Sessions Summary  
Basel, Switzerland  
24-25 September 2007**

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**I. Framework**

The IPAC-RS Extractables and GMP Workshop breakout sessions were roughly organized according to the following framework:

**1. Session Description**

Three OINDP pharmaceutical manufacturer and supplier break-out session groups (A, B, C) were composed of individuals representing a diverse range of expertise and experience. Participants in each break-out session discussed the same topic: collectively implementing the QbD paradigm and identifying challenges and opportunities.

**2. Break-out Discussion Framework**

**Goal of Breakouts:** To develop recommendations based on supplier and pharmaceutical company perspectives, that would help facilitate implementation of QbD into selection and control of OINDP container-closure system materials. (Recommendations would be developed into a report that would be shared with the IPAC-RS Board and IPAC-RS working groups addressing QbD. The report may make specific suggestions for projects or areas IPAC-RS working groups may wish to address further).

**Discussion Topics:** Moderators used the following discussion topics to guide participants in formulating recommendations.

- Can OINDP container-closure L&E terminology be translated into QbD terms? For example, what are the Critical Quality Attributes and Critical Process Parameters to consider for materials control?
- How can QbD concepts be applied throughout design and development of OINDP container-closure systems? How would use of a new material be handled? How would changes to a material be handled?
- What are challenges that suppliers and pharmaceutical companies face in implementing QbD, specifically in the materials selection and control arena? How can these challenges be addressed?
- How can suppliers and pharmaceutical companies strengthen their quality systems to encourage QbD implementation? What other areas can be strengthened to encourage QbD implementation?

## **II. Summaries from Breakout Sessions**

### **GROUP A**

#### **1. Challenges:**

- Lack of knowledge of what a manufacturer (N) is buying
- Education/Communication: need better sharing of information among interested parties
- Where will knowledge be generated (not regulator)
- Need proper list of requirements
- Polymers and additives
- Do not have “real” recommendations for plastic components (as in food contact materials)
- Choose the proper polymer in the beginning
- Very little effort to evaluate new materials
- Need more reliance on existing standards (info) to select/implement new polymers/additives?
- Process validation – lack of understanding at supplier
- Variability of supplier baseline.
- Two large worlds that need to work together
  - Pharma – Plastics
  - Specialist producers of polymers for Pharma
- N-2 suppliers lack cleaning validation knowledge
- Important to define what’s critical (Who? How? When?)
  - Definitions and Gradations of Criticality: Borrow from other industries?

#### **2. Why People Don’t Have Information**

- Partial Disclosure might work
- Can a Leachable Database Be Developed with Qualitative Data (i.e., Gras Type List)
- EU Food Additive List Does Not Apply to Additionally Formulated Polymers

#### **3. Expectations Need to Be Made Clear**

- Do we understand why we have assigned something as being critical? Are we correct in our assignment?

## GROUP B

### 1. Challenges:

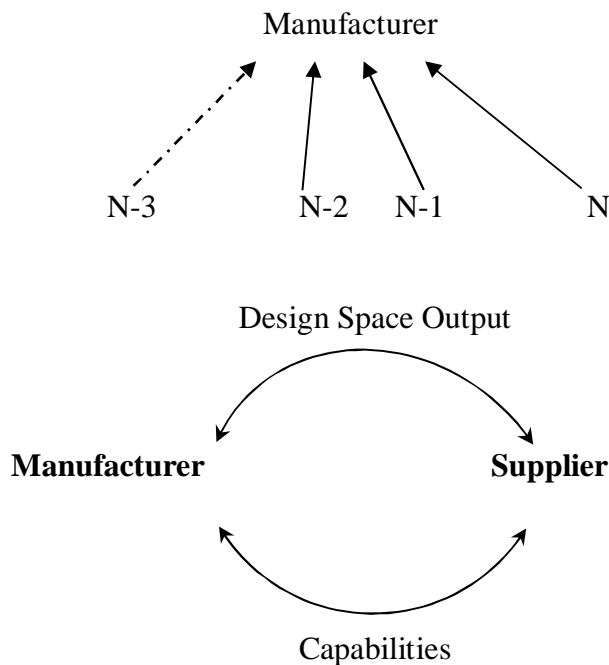
- Mindset of Companies
- Companies recognize benefits but do not want to be “first.”
- How to get buy-in and change ‘Back Home’
- Costs of Implementation vs. Company Mindset
- How to implement for existing products
- How to file changes
- Mindset of regulators and standards bodies, especially in Rest of World
  - “Global Filing”: ICH Regions vs. Rest of World
- Time/Resource investment is high for implementing a QbD approach

### 2. Information Chain

*Current System*

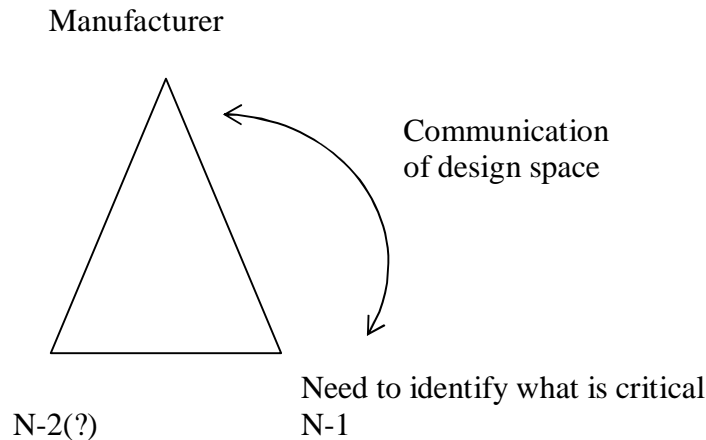
N-2 → N-1 → Manufacturer (N)

*Desired System*



- Need buy-in from companies to reach desired state: What will it take to get this done?

### 3. QbD Related to Device Choice:



- How much information/detail to share? Experiences, results, critical programs between supplier and manufacturer and regulatory agency?
- N-2/N-1/N à Cascade critical variables (Manufacturer cascades design space output)

## GROUP C

### 1. Challenges:

- Proprietary information is not shared
- Creating trust between manufacturer and supplier
- Understand others processes (pharma and supplier)
- Transition plan needed to facilitate implementation
- Change culture in company
- Try to find win-win
- Availability of pharma grade materials
  - Food grade may not be enough
- Old products may not fit the paradigm; are there pieces of QbD that could be implemented for these?
- Cost of custom materials
- Continuity of Supply
  - Changes--Raw material additives/ process
  - Longevity desired (10 – 15 years)

### 4. Potential Critical Attributes/Processes

- Monitor items relevant to Pharma
  - Dose:
    - § Orifice diameter
    - § Trigger mechanics
    - § Ease of use
    - § Mechanical stability

- Consistency of Dose:
  - § Stability (Use life, Shelf life)
- Safety:
  - § Impurities (depends on dose)
  - § Interaction of drug/material

## **5. Ways to Implement/Areas to Strengthen**

- Pharma 1 suppliers — need real partnership
- Consult on process not just materials
- Standard methods for extractables testing that can be shared with suppliers? (e.g. currently one supplier applies 8 different methods from 8 different customers to 1 polymer)
- Control processes (not only testing)
- Increase frequency of communication
- Move from a testing mindset (QC) " to an auditing mindset (QA)
- Develop team with N-1, 2, 3, 4
- Manufacturers pre-screen materials — risk mitigation
- Build in time for unanticipated issues
- Identify showstoppers up front (early in process)
- Suppliers consult with primary customers to do preliminary testing

## **6. Cost Considerations**

- Availability