



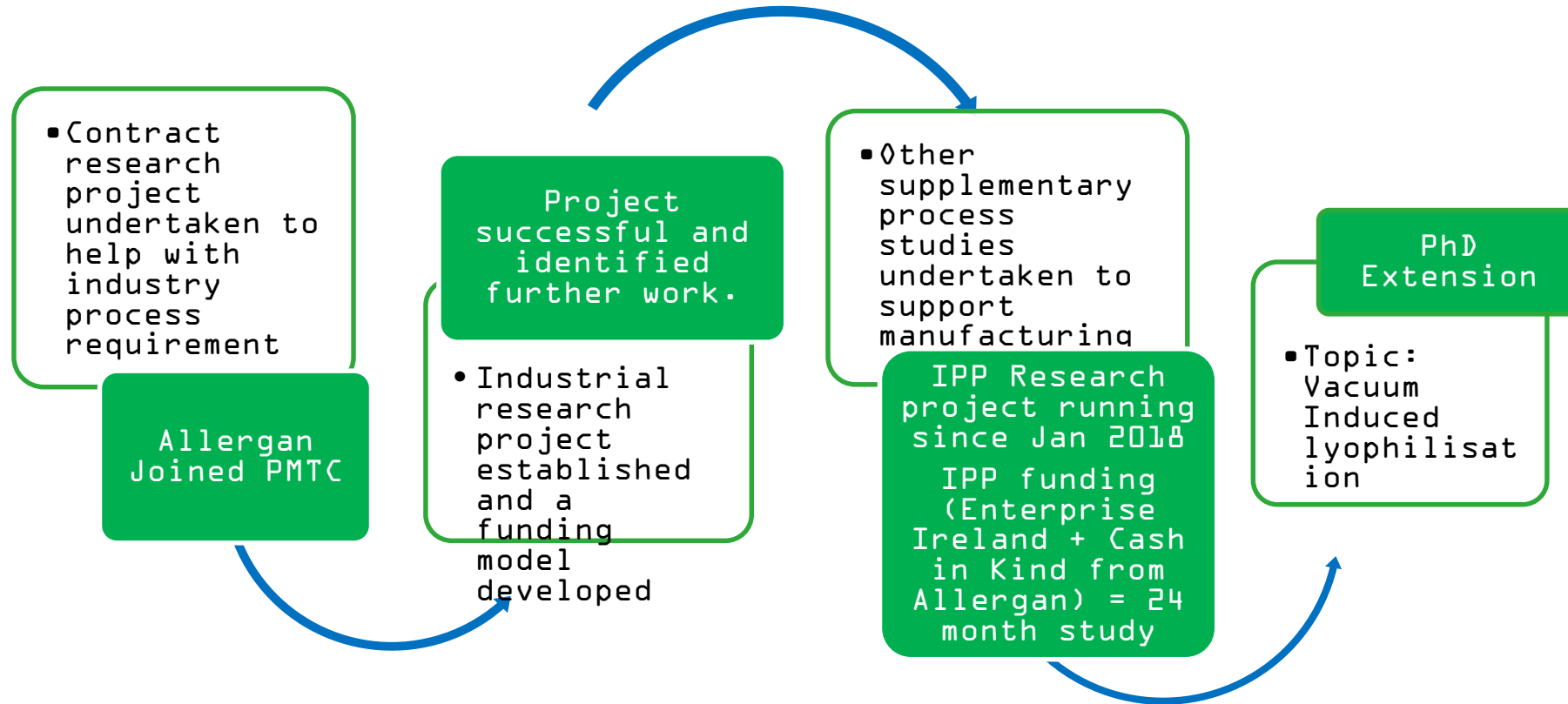
# Lyophilisation PMTC – Allergan Research Collaboration

Ciaran Burke, Parth Joshi

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# Allergan – PMTC Collaboration



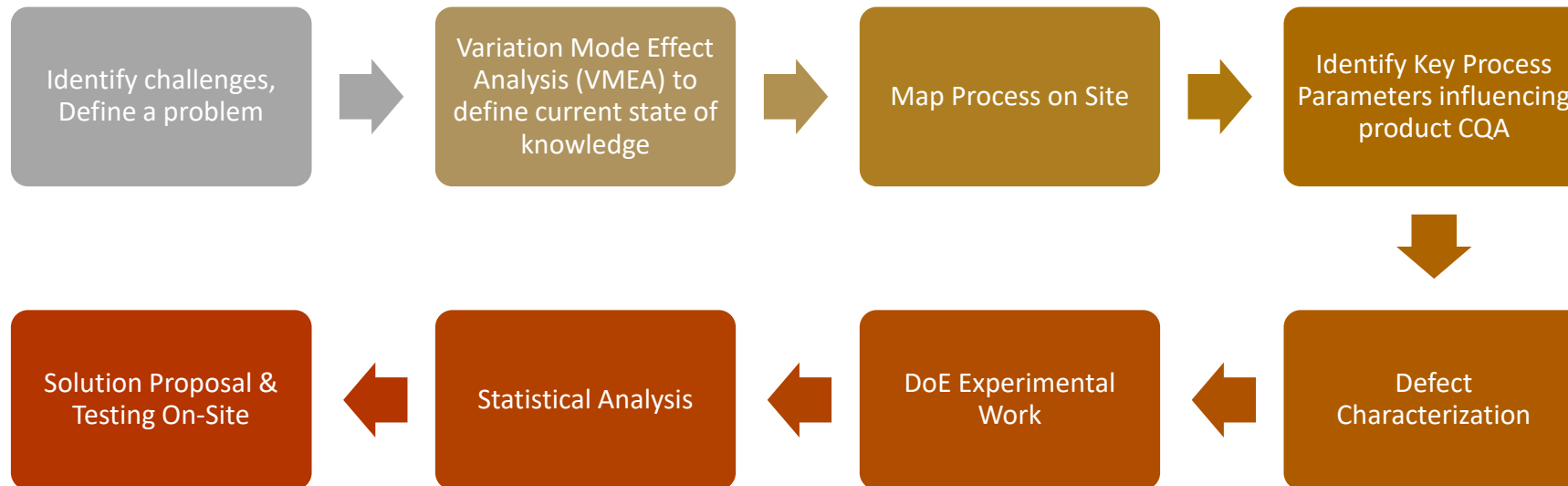
IPP - Innovation Partnership Program

# Lyophilisation Capabilities at PMTC

- Current Process Analytical Technologies
  - In-chamber visual process monitoring
  - In-house developed temperature monitoring circuit boards
  - Continuous product temperature and chamber pressure monitoring w/ an in-house written LabVIEW® program
- PAT to be developed
  - Capacitance moisture measurement
  - IR attenuation monitoring to determine drying endpoint



# Allergan Project Workflow Approach



# Collaboration Impact

## **PMTTC impact for Allergan**

- Identification of critical process parameters influence on product visual quality for an industrial lyo. process
- Influence of stopper processing on % residual moisture
- Long term vial vacuum integrity testing

## **Impact for SMEs**

- Local manufacturer (Elektrotek) supported - temperature monitoring boards

# Collaboration Summary & Impact



## Successful

- Learnings in both directions
- Ongoing studies
- Impromptu studies
- Collaboration established and future plan ongoing
- Increasing our technical knowledge and keeping up to date with future methods/practices in lyophilisation



Questions?

Thanks!



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# Thank you for coming