# INTEGRATED MANAGEMENT SYSTEM IN PHARMACEUTICAL INDUSTRY— THE NEW APPROACH IN CAPITAL PROJECT MANAGEMENT

Valentina Marinkovic, Ljiljana Tasić, Vidosav Majstorović University of Belgrade, Belgrade, Serbia

# Agenda

- Introduction
- Capital Project Management and PDCA model
- Project Management phases
- Integrated process
- Conclusion

#### Introduction

- Similarity among the standards:
  - GMP
  - ISO 9001
  - ISO 14001
  - OHSAS 18001
  - ISO 31000
  - BS 25999
  - ISO 10006

#### Introduction

- Certified management systems
   give a signal of liability and concern for stakeholder relation
- Multidimensional quality at the organization level, understanding of the "expectation and needs" of all interested parties are preferable
- Integrated Management System
   enable the organization to achieve the ultimate goal of avoiding the risk of negative impact on the organisation objectives

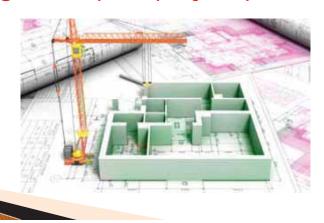
#### Introduction

#### WHEN and HOW

to start the management system integration?

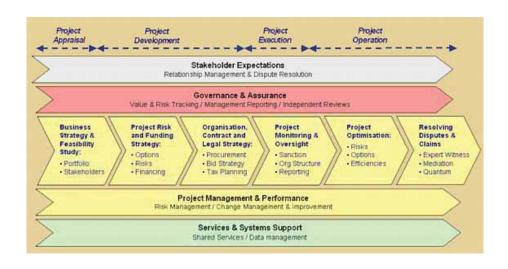
The best solution:

during the Capital project phase



## Capital project management

ALVOGEN PHARMA SERBIA – Packaging plant



### Capital project management

- Guidance on quality management in projects ISO 10006:2003, based on eight quality management principles
- Two aspects to the quality management in a project:
- Process approach the integration of management systems (GMP, ISO 9001, ISO 14001, OHSAS 18001, ISO 10006) has been implemented, through PDCA model
- b) Project product

Alvogen Pharma Serbia - Packaging plant has to achieve the expectation and needs of all interested parties (stakeholders, regulatory authorities, contractors, municipality, suppliers, customers and employees)

### Capital project management

The integration of management systems (GMP, ISO 9001, ISO 14001, OHSAS 18001, ISO 10006) has been implemented, through PDCA model



# Management Systems elements through PDCA cycle



# Project Management phases and integrated process

Management responsibility

PLAN

Resource management

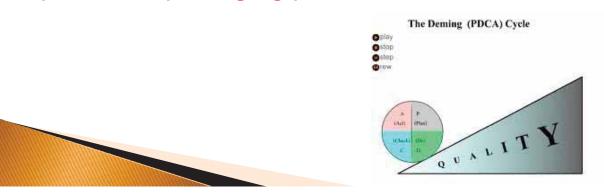
DO

Measurement, analysis and improvement

**CHECK** 

Operational packaging plant

ACT

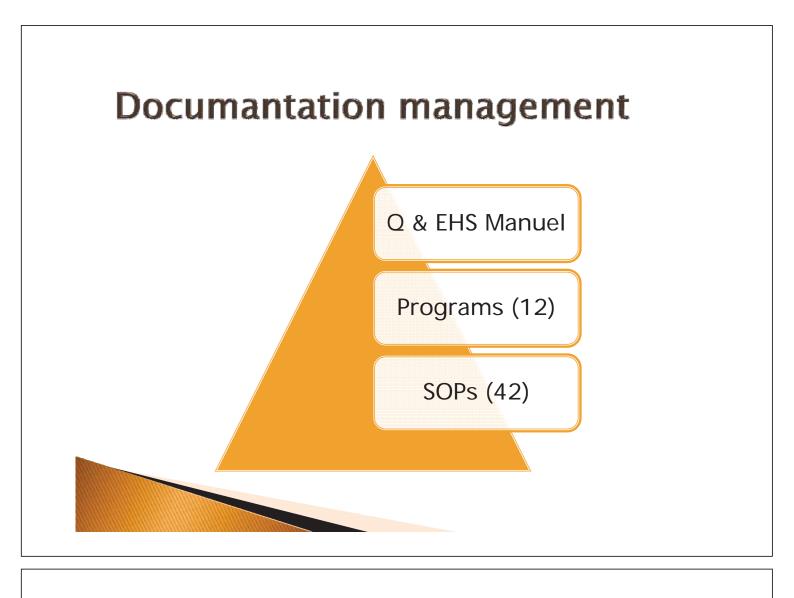


### Management responsibility

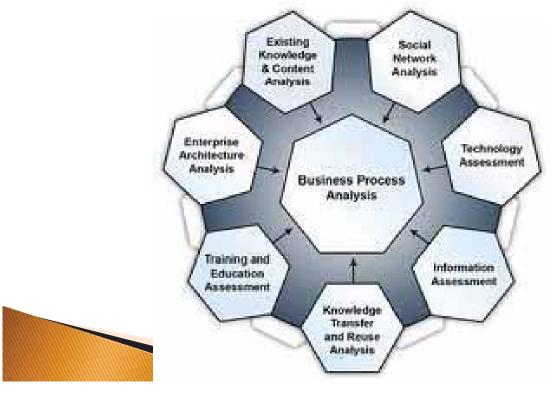
It was a direction – setting process, which includes planning the establishment and implementation of QMS, EMS and OHSAS principles. The management team made a decision about documentation structure, QEHS policy and Risk management policy. Validation Master Plan was approved. Risk assessment formal documents have been raised to facilitate project outcomes.



- Management team has identified, estimated, scheduled and allocated all relevant resourcecontractors, suppliers in project organization and provided human resources during the packaging process start up
- In this phase, GMP/ ISO/ OHSAS /regulatory/ legal requirements have been evaluated
- Integrated elements have been managed-Standardized Management System SOPs were prepared to assure the broad outlines of what the Packaging facility will do.
- Change management has been assessed through Change Control System



# Measurement, analysis and improvement



#### Measurement, analysis and improvement

- The organization learned from the project -Knowledge Management is in place
- Collection and validation of data for continual improvement have been established
- Common internal audit has been performed, lead by corporate Operation head



#### Conclusion

- The presented results of the possible model of IMS have been based on the process approach implemented in PDCA cycle
- The process approach has been reflected in PDCA model, using the key management enablers - Risk management and Knowledge Management
- The benefits of the IMS, through project management are: a) cost reduction b) resource optimisation and c) efficacy improvement.

# **THANK YOU**

