**DRAFT HANDOUT:
BUSINESS PROCESS MANAGEMENT**







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# DRAFT Agenda Topics

* BPM Foundations
* BPM Lifecycles
* BPM Technologies
* Break-Out: Motivation from Industrial Case “IAEA” Nuclear Inspection Processes
* BPM Design
* BPM Modelling Languages
* Break-Out Custom BPM Modelling Languages
* BPM Design: Evaluation/Analysis/Simulation
* BPM Modelling Languages – BPMN
* BPM Application Scenarios
* Break Out: iSMM
* BPM Case Study

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| **Monday, April 8, 2013** |
| *Start at 9:30 on first day*

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| 9:30 – 10:00 | Introduction to CourseAgendaGoal/Objective of courseEvaluation SchemaIntroduction Lecturers, Institution, Research ObjectiveTechnology Used (ADONIS:CE Intro) |
| Florin Abazi |

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| 10:00 – 11:00 | **BPM Foundations**Definitions + Interactive Motivation (What is BPM for the students, based on a sample, etc.)Example: AMAZON/Online Book Store (adapt according to feedback from Florin)Slide Input: WINF BPM Foundations slides |
| Hans-Georg Fill |

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| 11:00 – 11:15 | BREAK |

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| 11:15 – 12:30 | **BPM Lifecycles**Focus BPMSExample: AMAZON/Online Book Store (adapt according to feedback from Florin)Readings:Karagiannis 1995: BPMS PaperSlide Input: Ecole de Mines (01b, 19-29) + Konsolidierung mit WINF |
| Hans-Georg Fill |

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| 12:30 – 14:00 | LUNCH BREAK |

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| 14:00 – 14:30 | **BPM Technologies**Focus ADONIS:CEDistinction between BPM and WF, Business Graph, Execution Graph, Evaluation Graph -> Formal representation!!!Readings: Junginger et. Al. Workflow-based Business MonitoringBusiness Graph/Execution GraphExample: AMAZON/Online Book Store (adapt according to feedback from Florin)Slide Input: WINF BP Technologies, Ecole de Mines (11b) |
| Hans-Georg Fill |

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| 14:30 – 15:30 | **Break-Out: Motivation from Industrial Case “IAEA” Nuclear Inspection Processes**Slide Input: Slides from Florin |
| Florin Abazi |

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| 15:30 – 15:45 | BREAK |

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| 15:45 – 17:30 | **Assignments & InClass Preparation**BPM Case Distribution for Domain Example* Groups a 5 students
* Develop Business case
* Follow BPMS paradigm

Input* *Domain list:* Bank, Insurance, Car production, Hotel, Hospital, Railway, Telecommunication, Retail, Beverage, Restaurant chain

Output* 1 slide per sub-process per student to be handed in
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| Florin Abazi, Hans-Georg Fill |

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| **Tuesday, April 9, 2013** |
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| 09:00 – 11:00 | **Presentation of Business CAses**5 min presentation + 5min Q&A per Group |
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| 11:00 – 11:45 | **BPM Design**Focus ADONIS:CEDistinction between BPM and WF, Business Graph, Execution Graph, Evaluation Graph -> Formal representation!!!Readings: * GoM, Design principles, Becker Schütte

Slide Input: WINF Process Design, VGU, GoM Folien |
| Hans-Georg Fill |

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| 11:45 – 12:00 | BREAK |

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| 12:00 – 12:30 | **Introduction ADONIS*** Setup (Individual, Labor), UI, Tool, Functionalities, Constructions Principles

Reading: * BPTrends ONLINE

Slide Input: ADONS Training Intro, Basic construction principles, spider net (01b, 30-43, 46, 47) |
| Hans-Georg Fill |

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| 12:30 – 14:00 | LUNCH BREAK |

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| 14:00 – 15:30 | **Modelling in ADONIS**Construction Principles in ProcessesReading: * Integrated Modelling and Simulation of Inter-Organisational Business Processes

Slide Input: ADONS Training Intro, Basic construction principles, spider net (01b, 30-43, 46, 47) |
| Hans-Georg Fill |

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| 15:30 – 15:45 | BREAK |

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| 15:45 – 17:30 | **Assignments & InClass Preparation**Domain specific case process landscape, and 5 processes per group (1 per person). Integrated view. |
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| **Wednesday, April 10, 2013** |
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| 09:00 – 11:00 | **Presentation of Models in Tool**5 min presentation + 5min Q&A per Group |
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| 11:00 – 11:15 | BREAK |

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| 11:15 – 12:00 | **BPM Modelling Languages**Language classification and typesSample: EPCSample: UMLReadings: * Formalisation and Verification of EPC (van Der Aalst)

Slide Input: Ecole de Mines (04b, 24-29, 55-62), WINF |
| Hans-Georg Fill |

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| 12:00 – 12:30 | **Break-Out Custom BPM Modelling Languages**Sample: iSMM - Custom process modeling language IAEAONLY “Nuclear Fuel Cycle Process Model”Reading:Paper Florin/Hans-Georg/Bergmayr |
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| 12:30 – 14:00 | LUNCH BREAK |

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| 14:00 – 15:30 | **BPM Design: Evaluation/Analysis/Simulation**Static evaluation (verification, validation, optimization) -> AnalyseDynamic evaluation (simulation) -> SimulationExamples: Händisches Rechnen von BeispielenSlide Input: Ecole de Mines (05b, 4-48), WINF |
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| 15:30 – 15:45 | BREAK |

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| 15:45 – 17:30 | **Evaluation/Analysis/Simulation in ADONIS**Reading: * Simulation in Financial Services with the Business Process Management System ADONIS
* Agenten -> Florian Bartl

Slide Input: ADONS Training Intro, Basic construction principles, spider net (01b, 30-43, 46, 47)Case development to simulatable models PART 1 |
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| **Thursday, April 11, 2013** |
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| 09:00 – 10:00 | **Evaluation/Analysis/Simulation in ADONIS contd.**Conclusion of sample |
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| 10:00 – 10:15 | BREAK |

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| 10:15 – 11:00 | **BPM Modelling Languages**Standard language: BPMNReadings: * Formalisation and Verification of EPC (van Der Aalst)

Slide Input: BPMN Example |
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| 11:00 – 12:30 | **Modelling, Analysis, Simualtion and Evaluation of BPMN Models**Same sample as above, BPMN based optimization of results |
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| 12:30 – 14:00 | LUNCH BREAK |

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| 14:00 – 15:30 | **BPM Application Scenarios** * Interpretation of Simulation Results and SHOULD-BE Scenario Development
* WF Engine
* Process as Specification
* Process as Knowledge Platform

Example: AMAZON/Online Book Store (adapt according to feedback from Florin) |
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| 15:30 – 15:45 | BREAK |

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| 15:45 – 17:30 | **Assignments & InClass Preparation**Domain Sample ready for SimulationData collectionScenario developmentSimulation and evaluation of different scenariosImprovement proposal based on 1 process |
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| **Friday, April 12, 2013** |
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| 09:00 – 11:00 | **Presentation of assignment** |
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| 11:00 – 11:15 | BREAK |

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| 11:15 – 12:30 | **Introduction to case study “Airport”*** Case study description and format
* Evaluation
* First concept development on an individual basis
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| 12:30 – 13:30 | **WrapUp & Q&A Case Study**Course evaluationAnnouncement of exam |

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| Wilfrid Utz |

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