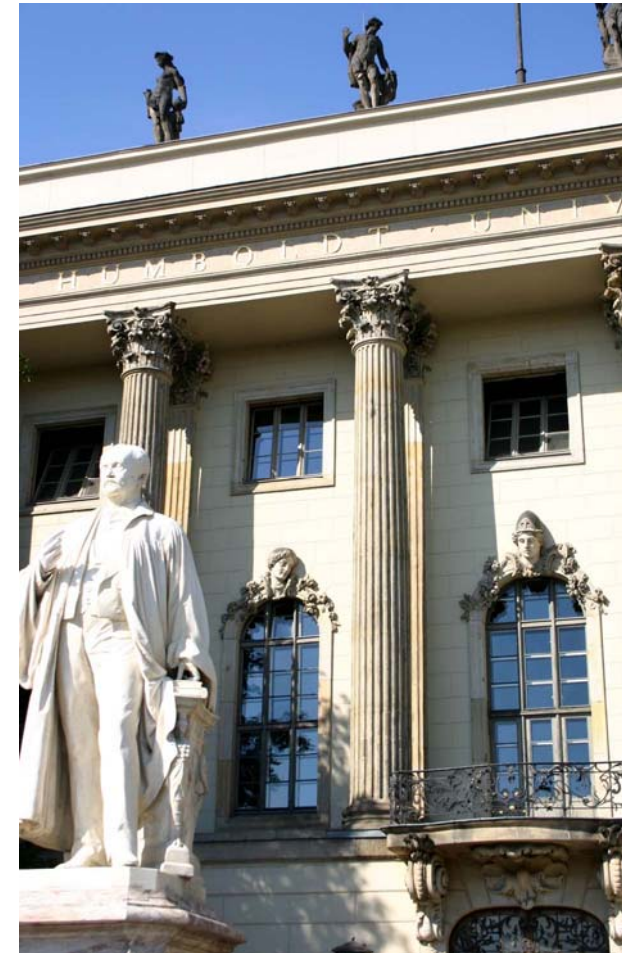# Orientation Program for Students of Our MSc. Programs Business Administration, Economics and MEMS

Information Systems
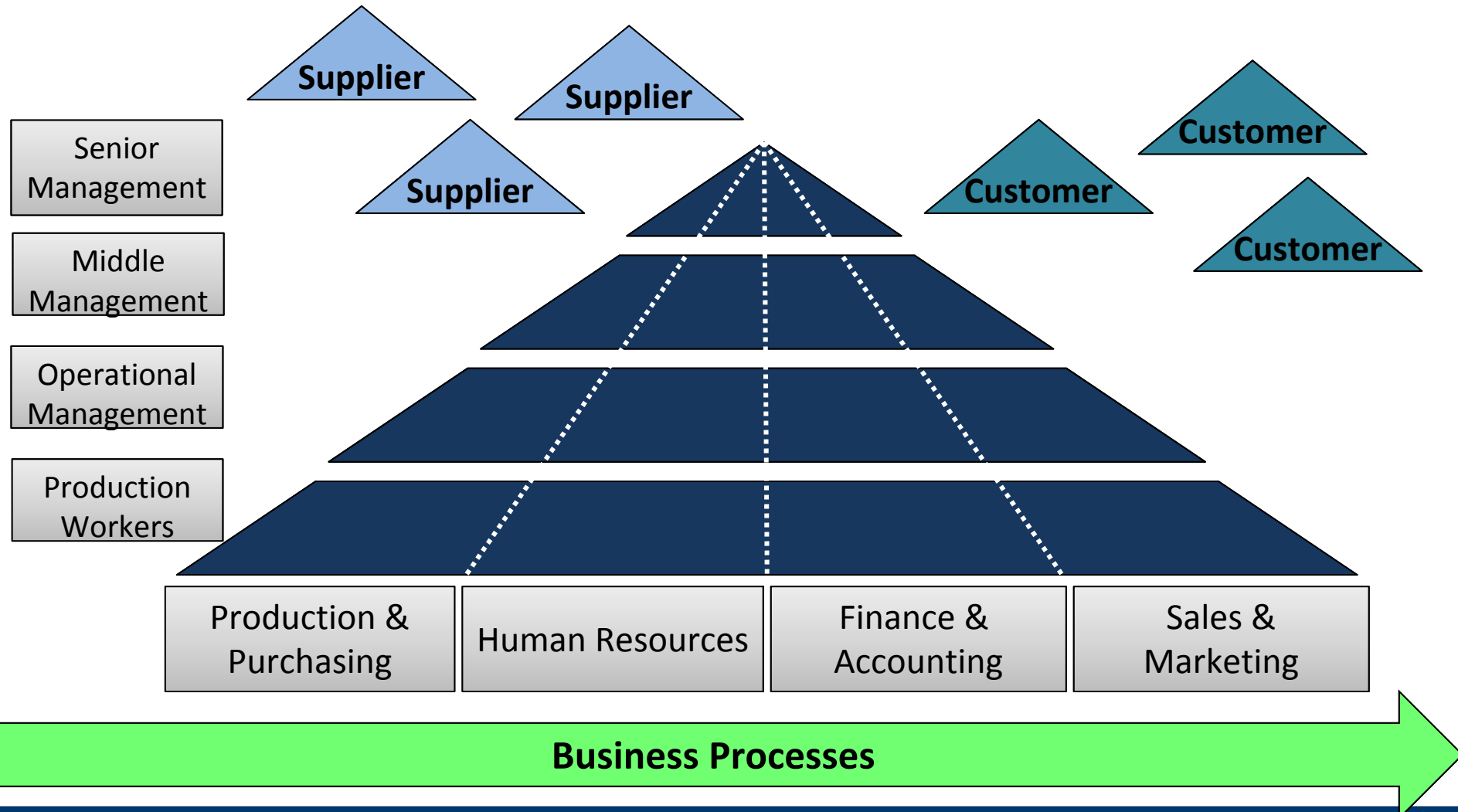
Prof. Dr. Stefan Lessmann
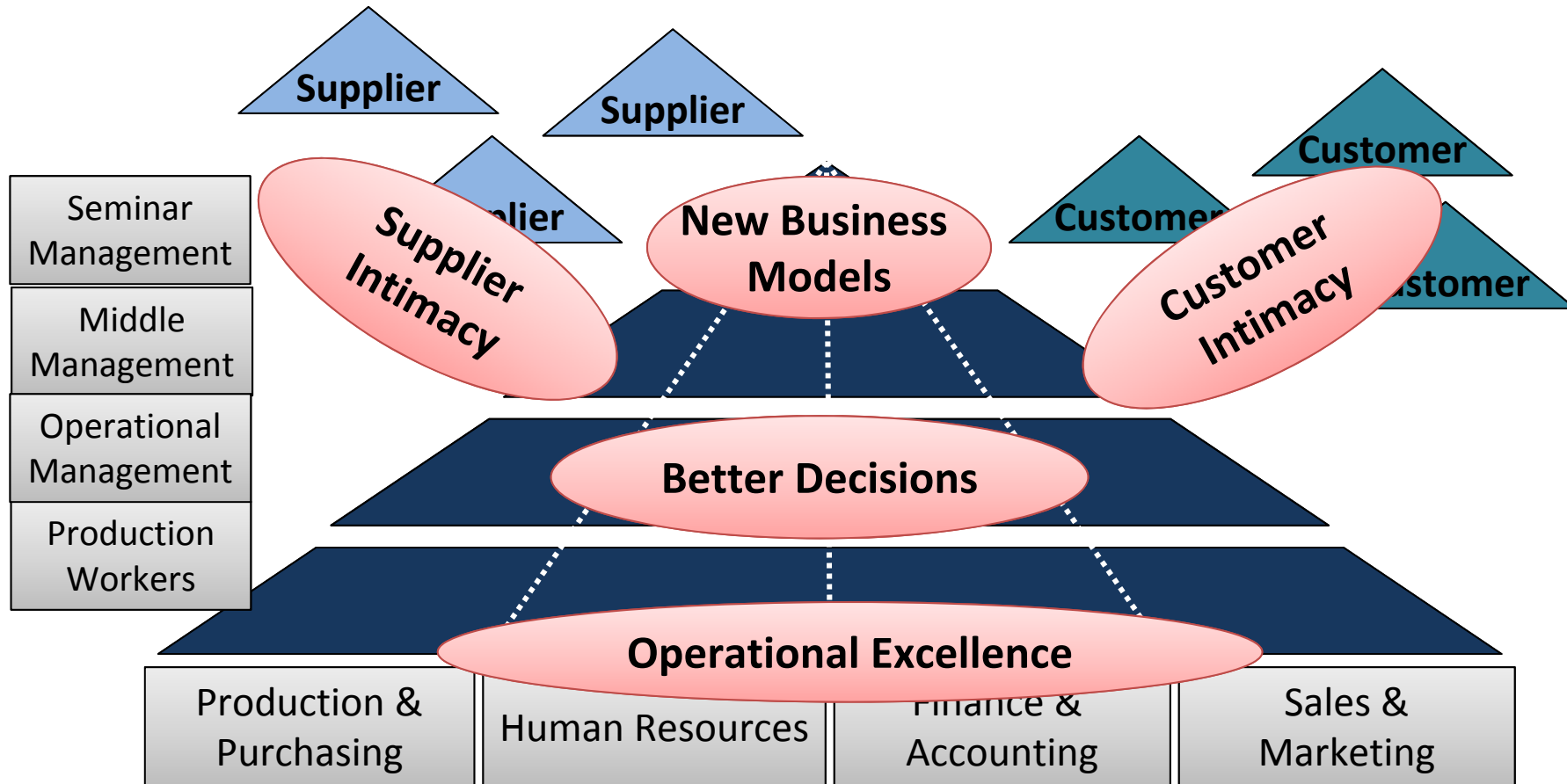
Agenda

Information Systems

- **What it is about**

- **Who we are**

- **What we offer**

What IS is About: The Business Eco-System

Senior Management

Middle Management

Operational Management

Production Workers

Supplier

Supplier

Supplier

Customer

Customer

Customer

Production & Purchasing

Human Resources

Finance & Accounting

Sales & Marketing

Business Processes

What IS is About: Strategic Objectives

What IS is About: Summary

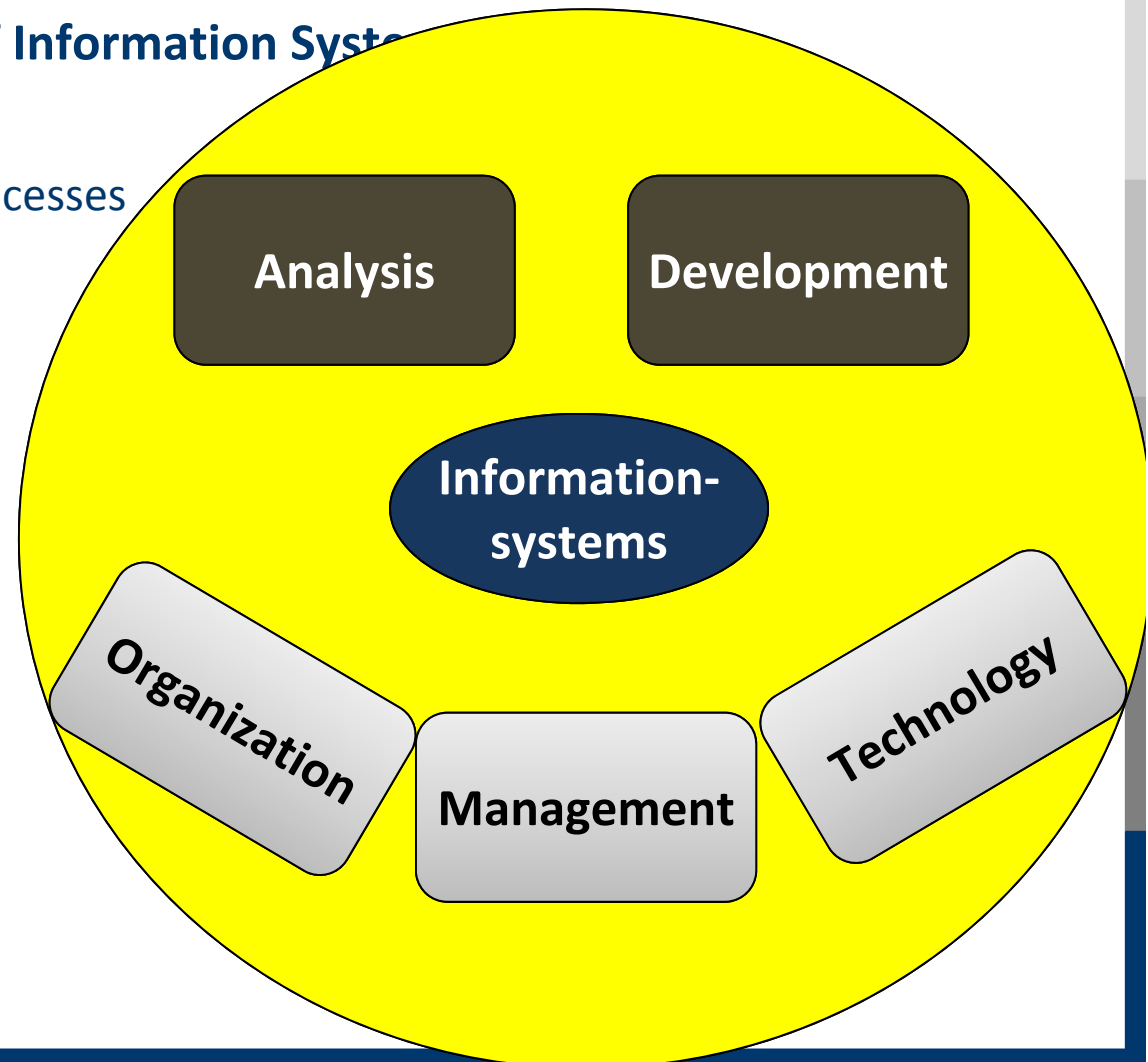- **Analysis and Development of Information Sys...**

- **Organization**
  - Business applications and -processes
  - Governance
  - …

- **Management**
  - Decision Support
  - Collaboration & Coordination
  - IS / IT business value
    …

- **Technology**
  - Data management
  - IT-Infrastructure & Security
  - …

Who We Are

Prof. Dr. Stefan Lessmann

■ Short bio

☐ 2002, 2007:   University of Hamburg
MSc, PhD in Business Administration

☐ 2005 – 2014:   University of Hamburg
Lecturer in Information Systems

☐ 2009 –   University of Southampton (part-time)
Guest lecturer in Management Science

☐ 2014 –   Humboldt-University of Berlin
Professor of Information Systems

■ Main research areas

☐ Big Data, Business Analytics, Data Science

☐ Management decision support

☐ Marketing and risk analytics

☐ Time series forecasting

Who We Are

Dr. Ben Fabian

■ **Short bio**

    □ 2000:   Free University of Berlin
                    MSc. in Mathematics

    □ 2005 – 2008:   Humboldt-University of Berlin
                    PhD in Information Systems

    □ 2009 –   Humboldt-University of Berlin
                    Senior Lecturer in Information Systems

■ **Main research areas**

    □ IT security and privacy

    □ Internet of Things

    □ Data Science

    □ Complex Networks

Who We Are

Annika Baumann

■ Short bio

- ☐ 2007 – 2010: Humboldt-University Berlin
  BSc. Business Administration
- ☐ 2010 – 2013: MSc. Information Systems
- ☐ 2013 – Research assistant (PhD)

■ Main research areas

- ☐ Internet topology
- ☐ Graph-based algorithms
- ☐ Customer behavior in E-Commerce
- ☐ Social network analysis

Who We Are

Anna-Lena Bujarek

■ Coordinates

- ☐ Room: SPA1, 326
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- ☐ Office Hours: TUE, WED, THUR (9 – 12)

Our Offers (in winter)

Chair of Information Systems

Mandatory elective or elective units

Advanced Information Systems I

- Business Analytics & Predictive Modeling
- Tutorial BA & PM
- Seminar AIS I

IT-Security & Privacy

- Lecture
- Seminar

Our Offers (in summer)

Chair of Information Systems

Mandatory elective or elective units

Business Process Management	E-Business & Online Marketing
Lecture	Lecture
Tutorial	Seminar

Applied Predictive Analytics

Business Analytics & Predictive Modeling

- **Lecture (by S. Lessmann)**

  ☐ Business Intelligence and Data Warehousing

  ☐ The business case for analytics

  ☐ The data science toolbox: Techniques for predictive and explanatory modeling

- **Tutorial (by S. Lessmann)**

  ☐ Further elaborate topics covered in the lecture

  ☐ Hands-on exercises

    – Analytics software

    – RapidMiner, Matlab, R, Python, etc.

Seminar AIS I (by the whole team)

- **Recent topics in the broad field of Information Systems**
  - ☐ About 15 – 20 alternative topics per seminar
  - ☐ Typically related to our research areas
- **Seminar thesis**
  - ☐ Choice of one topic (by draw if needed)
  - ☐ Group work (normally two students)
- **Oral presentation**
  - ☐ Two presentation
  - ☐ Mid-term & before submitting final thesis

IT-Security and Privacy

- **Lecture (by B. Fabian)**
  - ☐ Introduction to Cryptography
  - ☐ Public Key Infrastructure / Network Security
  - ☐ Security Standards and Best Practices
  - ☐ Case Studies (electronic Health Card, electronic Identity Card)
  - ☐ Privacy Regulation
  - ☐ Why do users disclose information?
- **Seminar (by B. Fabian)**
  - ☐ A variety of topics:
  - ☐ Experiments on Privacy
  - ☐ Security Threats and Countermeasures for emerging Technologies
  - ☐ Value of Information to Users
  - ☐ Interesting and challenging!

Business Process Management

- **Lecture (by S. Lessmann)**
  - Process management lifecycle
  - Principles of business process modeling using BPMN
  - Process analysis
  - Technologies for business process automation (e.g., BPEL)
  - Business process outsourcing
  - Process mining
- **Tutorial (by A. Baumann & B. Fabian)**
  - Further elaborate topics covered in the lecture
  - Hands-on exercises
    - Business Process Model and Notation
    - Business Process Execution Language
    - …

E-Business and Online Marketing

■ **Lecture (by S. Lessmann)**

☐ E-Business strategy

☐ E-Business infrastructure

☐ E-Business applications

☐ Internet marketing mix

☐ Marketing communication using digital channels

☐ Web controlling

■ **Seminar (by A. Baumann, S. Lessmann)**

☐ Recent topics in the scope of E-Business and Online Marketing

☐ Seminar thesis (group work)

☐ Oral presentation

Applied Predictive Analytics

- **Practical seminar (by A. Baumann S. Lessmann)**
- **(More than a)Simulation of a real-life modeling project**
- **Participating in an intern. forecasting competition**
  - Kaggle
  - KDD Cup
  - Data Mining Cup
  - …
- **Teamwork**
- **Variety of analytic software tools**
  - MS Excel, SPSS, RapidMiner, Hadoop, R, Matlab, Python, …

Welcome! And have a great time @ HU

Prof. Dr. Stefan Lessmann

Chair of Information Systems

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