


Industry 4.0

RUB Summer School 2019



The Future of Manufacturing

The Ruhr Metropolitan Area as one of the major industrial sites of Europe is an excellent example of the shift from old industries to some of the most advanced production plants in the world. Digitalization plays a key role in this development and offers opportunities and challenges at the same time.

The Ruhr-University of Bochum is a center of excellence concerning researching and consulting of companies on their way through the “4th industrial revolution”, as the movement is labeled in Germany.

We want to invite you to design this worldwide movement with us.

Part 1: Technology

Technologies shape the complex planning of smart factories and demand new regulations and laws protecting data and workers.

Which applications are implemented? Which risks do they carry and do we have strategies to handle those?

Are there laws and regulation in countries we operate in that we have to consider?

Part 2: Strategy

The Interconnectedness of a Smart Factory cannot be operated without central management.

With the right strategy, the so-called 4th Industrial Revolution can be of great benefits for modern companies.

In the second week of the Summer School you will learn all about how to plan and manage a Smart Factory.

WEEK 1

TECHNOLOGY IN DIGITALIZATION PROCESSES

History and Possibilities of Digitalized Manufacturing

Cyber Security

Interconnectivity can make a company vulnerable. How can you secure your data and fend off hackers?

Big Data & Data Exchange

Data is everything in a smart factory. Which tools can you use to collect and to read it in order to develop the right strategies for your company?

Law & Regulation

Smart Factories need smart regulations. Which regulations are in place and which need to evolve to meet the needs of tomorrow's industries?

WEEK 2

MANAGEMENT & STRATEGY

Introduction to Project Management

Learn how to analyse the digital potential of any given production plant and how to draw the map for its way to 4.0.

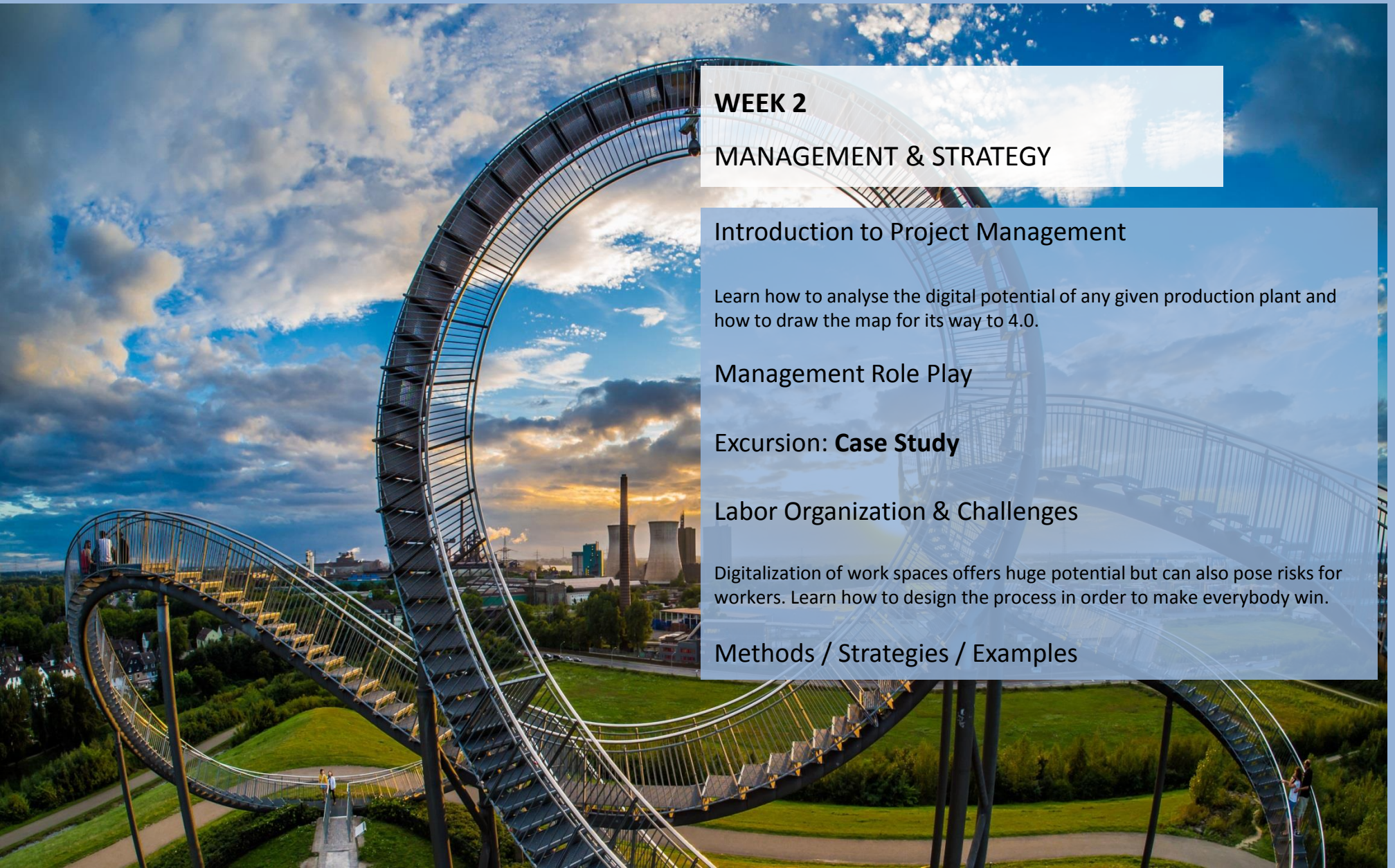
Management Role Play

Excursion: **Case Study**

Labor Organization & Challenges

Digitalization of work spaces offers huge potential but can also pose risks for workers. Learn how to design the process in order to make everybody win.

Methods / Strategies / Examples



Leisure Activities

Apart from studying we want you to discover the rich history of the industrial area of the Ruhrgebiet! Come on tours with us to Zeche Zollverein, once a big mine, now a museum. Or the famous mining museum of Bochum, always worth a visit.

The name of Bochum's pub district "Bermuda Dreieck" indicates that every night people get lost in all those bars along the way. Maybe you want to try one of the famous "Currywurst" that Bochum is known for in the whole world? Come and get to know your fellow students at a barbecue in one of our many parks.

We would be happy to welcome you to our area on our way through the next industrial revolution!

Meet the Experts

The Ruhr-University Bochum works closely with companies of the area on solutions for digitalization of traditional industries.

Take the chance to meet the experts and hear all about their experiences, build a network and take home useful insider knowledge about smart factories. The future is yours to build.





RUB Summer Schools

Study – Connect – Enjoy