



HOCHSCHULE RUHR WEST  
UNIVERSITY OF APPLIED SCIENCES

INSTITUT INFORMATIK

# Cross-Border Innovation Competences: What future global entrepreneurs need to learn – insights from a European comparative study

*Prof. Dr. Jan M. Pawlowski*

*Ruhr West University of Applied Sciences /  
University of Jyväskylä*

*Copenhagen, 04.10.2016*

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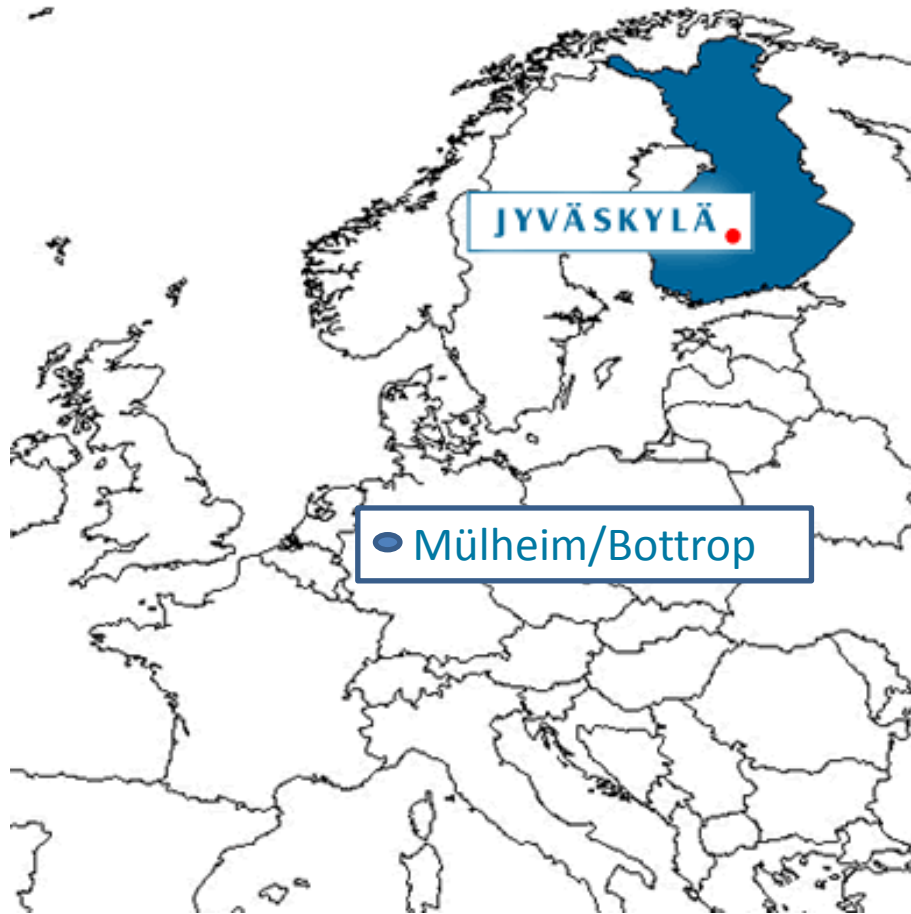
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# Ruhr West University of Applied Sciences



# Hochschule Ruhr West

## Ruhr West University of Applied Sciences

### History

- Founded in 2009
- Public institution, regional development
- 2600 students, 60 professors and growing 😊
- Western Ruhr area (Bottrop, Mülheim)

### Focus Areas

- Civil Engineering
- Business Administration - International Trade Management & Logistics
- Mechatronics
- Human-Machine-Interaction
- Business Information Systems
- Master Programme Business Administration



# Business Information Systems@HRW

## Focus areas

- Business Information Systems
- Process Management
- Supporting globally distributed workgroups
- Open Educational Resources
- IT-supported Innovation Management

## E-Learning

- Supporting international education settings
- Cultural adaptation
- Standardization & Quality Management
- Mobile & Ambient Learning
- Innovative tools and solutions

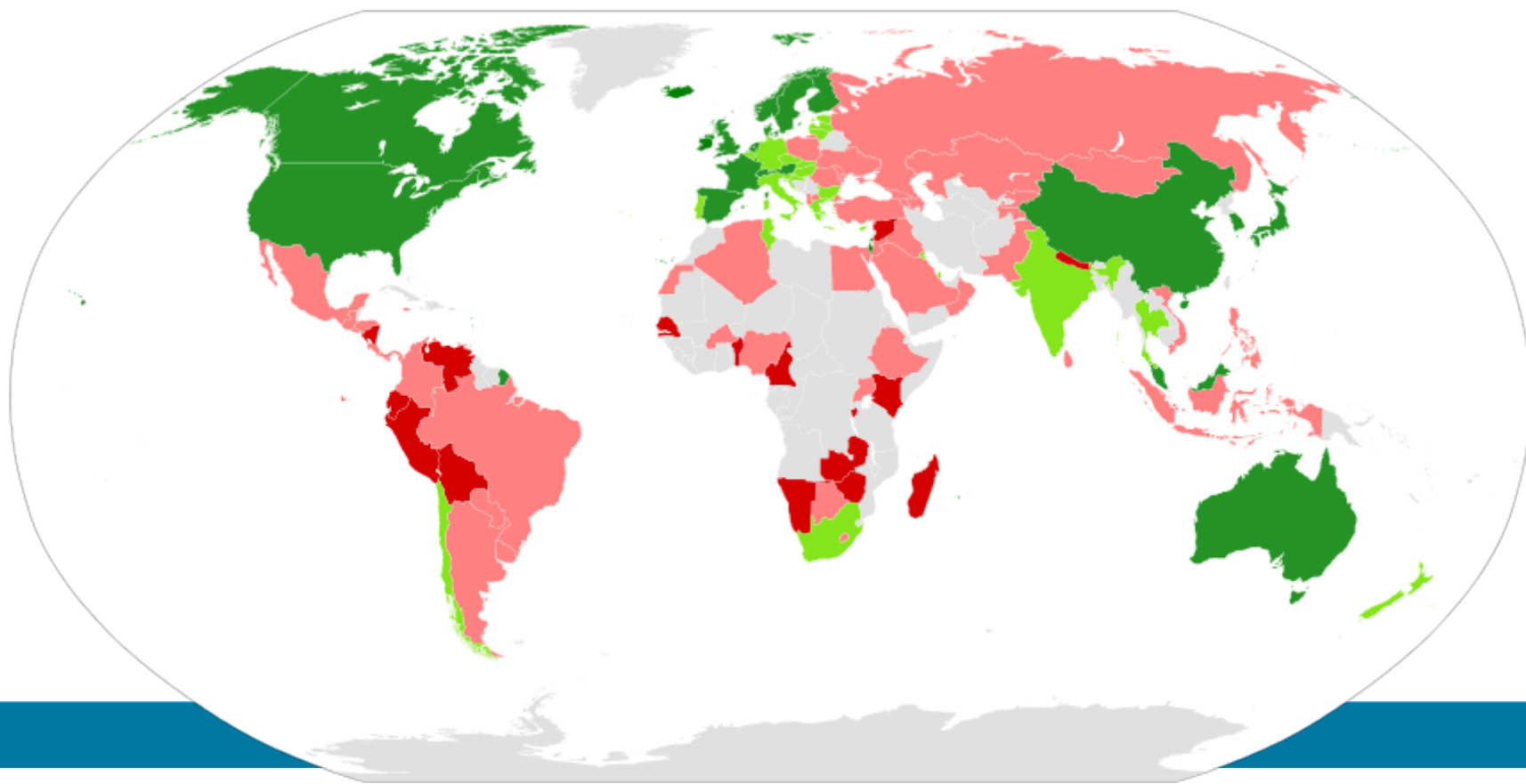
## Some of my previous projects

- [Play4Guidance](#): Business Games for Entrepreneurs
- [EAGLE](#): E-Learning in Public Administration
- [Open Educational Ideas and Innovations](#) (OEI2)
- [Nordic Open Education Alliance](#)
- [OpenDiscoverySpace](#): OER for Schools
- [OpenScout](#): OER for Management



## Innovation

- “The process of translating an idea or invention into a good or service that creates value” (Business Dictionary, 2016)
- Key to global success and competitiveness
- Key to employment and employability
- Key to countries’ success in a global market

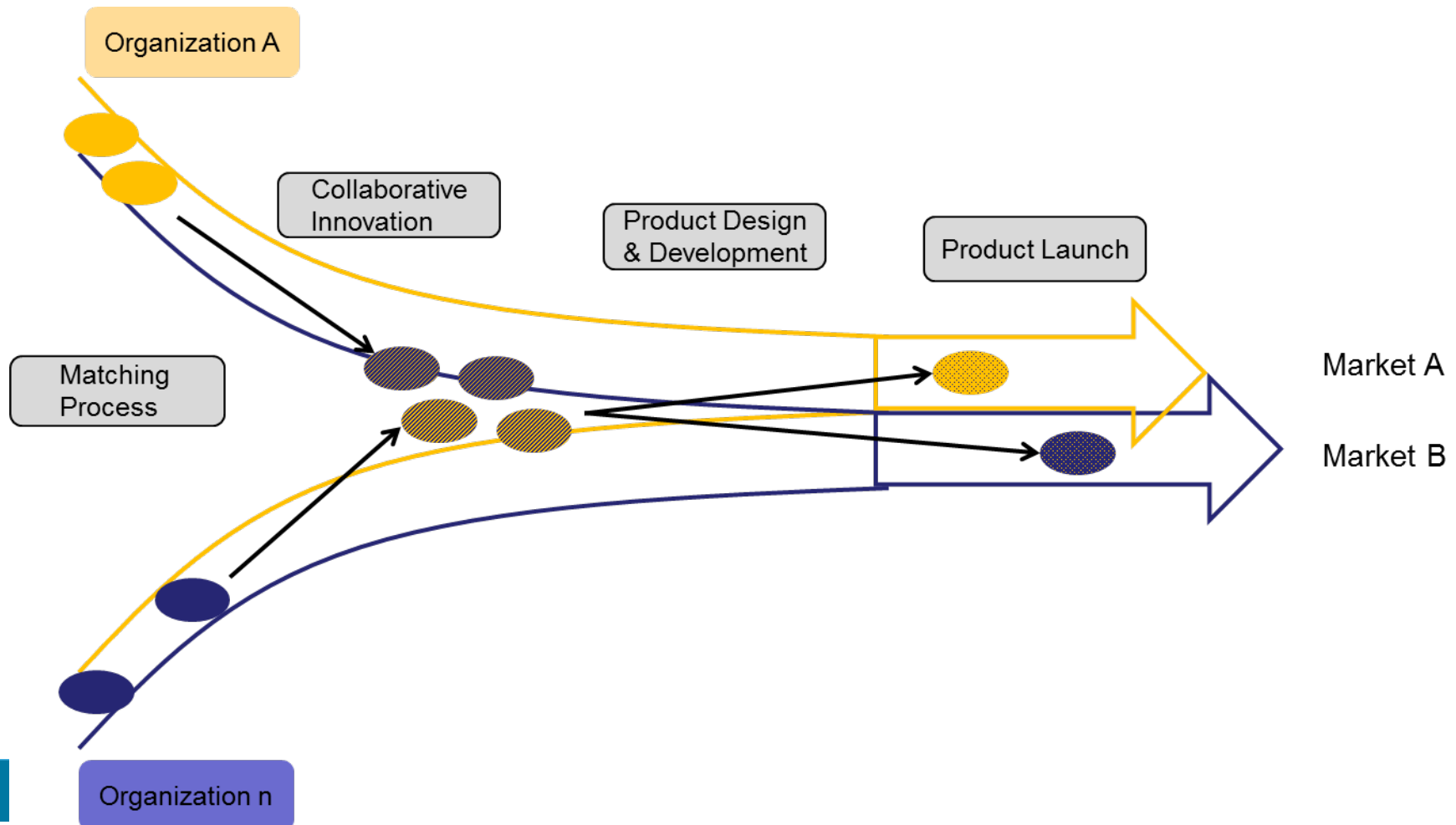


## Innovation across Borders: Challenges

- How can we organize mutually beneficial collaboration across the globe?
  - Trust
  - Knowledge sharing vs knowledge protection
  - Closed vs open vs collaborative innovation
- What are the key competences for innovative people and organizations?
- How can we utilize e-learning to improve peoples' innovation competences?

# The Process: Born Global Innovation

- Mixing open, invitational & frugal innovation
- Starting innovation from the first idea
- Creating global partnerships
- Non-competing markets
- Enabling SMEs to create high impact





# Play4Guidance

- Objectives
  - Play4Guidance aims to bring the world of **education and training in close contact with the job market**, in order to match school and university curricula to the market's real needs.
  - Furthermore, the project aims **to boost entrepreneurial culture** in young Europeans and help young Europeans acquire the skills needed to create new businesses. This will potentially contribute to a reduction in EU unemployment.
  - In addition, P4G aims to **identify essential business skills** among target groups and target countries and collect them in the Great Common Denominator Matrix.
  - Play4Guidance produces an effective European tool able to **support students and unemployed in developing basic math, economic, digital and entrepreneurial transversal skills** with a strong focus on problem solving and leadership and will support various institutions such as guidance centres, job centres, SMEs, companies and universities in evaluating participant skills and guiding them through training and skill-building.
- Key Outcomes
  - Greatest Common Denominator Skills Matrix („Innovation Competences“)
  - P4G Business Game & Scenarios

# Findings: Play4Guidance Innovation Competences

Nº	Category	Description of the competence	Nº	Category	Description of the competence	Nº	Category	Description of the competence
01	Analytical Thinking	The ability to analyze problems systematically.	10	Expertise	The ability to perform professional jobs.	19	Results Orientation	The ability to set performance objectives, resulting targets and measures.
02	Business Acumen	The ability to discover opportunities and transform resources into performance	11	Flexibility	The ability to effectively adapt to a variety of situations	20	Self-Confidence	The ability to express oneself in a different / hostile situations.
03	Client / Service Orientation	The ability to meet the needs of both internal and external customers.	12	Influence	The ability to influence thoughts and actions of others.	21	Self-Control	The ability to manage one's emotions under pressure or temptation.
04	Commitment to Learning	The ability to actively pursue learning and develop competitiveness	13	Information Seeking	The ability to find and capture information to increase knowledge or find solutions.	22	Team Leadership	The ability to create a favorable environment and mobilize people to succeed.
05	Communication	The ability to effectively receive and express information or feelings.	14	Initiative	The ability to be a self-starter and to meet the challenge of higher level objectives.	23	Basic competences	Ability to apply basic knowledge needed for running a business.
06	Conceptual Thinking	The ability to recognize patterns or trends in a problem	15	Innovation	The ability to make something new and to improve performance.	24	Decision making	Ability to make decisions.
07	Order and Quality	The ability to reduce uncertainty and to control quality.	16	Organizational Awareness	The ability to recognize the power relationships in organizations.	25	Personal determination	Ability and attitude to reach given objectives.
08	Developing Others	The ability to help others make progress	17	Personal Motivation	The will to succeed.			
09	Empathy	The ability to understand and respond to the concerns of others	18	Relationship Building	The ability to build and maintain personal networks.			



## JANP (MONTH 1)

- START GAME
- MANUAL
- QUICK START
- COMMUNITY
- PLAY4GUIDANCE.EU

### Market Analysis

- CURRENT SITUATION
- GENERAL VIEW
- PARAMETERS



### Decision Making

- SUPPLY MANAGEMENT
- PRODUCTION MANAGEMENT
- MARKETING AND SALES MANAGEMENT

## MARKET SITUATION AT MONTH 1 (JANP - GAME OPEN)

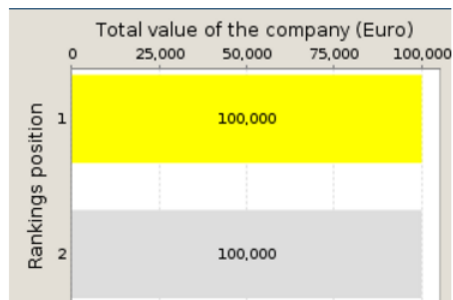
- START GAME
- MANUAL
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- Game
- Current situation**
- General View
- Parameters

- SUPPLY MANAGEMENT**
- PRODUCTION MANAGEMENT**
- MARKETING AND SALES MANAGEMENT**
- OVERALL RESULTS OF MANAGEMENT**
- MARKET RESEARCH**

Supply Management	
Results	
Raw material purchased from local supplier (kg) ?	650
Raw material purchased from foreign supplier (kg) ?	0
Total purchase cost of the raw material (Euro) ?	9,750
Stock inventory of raw material (kg) ?	1,020
Weighted average cost per unit of raw material (Euro/kg) ?	15
Purchase cost of packaging (Euro) ?	8,250
Stock inventory of packaging (number of packaging) ?	7,000
Market data	
Minimum price of the raw material accepted by the local supplier (Euro) ?	14
Exchange rate US Dollars/Euro (Dollars US/Euro) ?	1.25
Indicative price for the rental of a container (Dollars US) ?	15,000
Indicative price of the raw material from overseas supplier (Dollars US/kg) ?	10
Wholesale purchase price of packaging (Euro) ?	2
Retail purchase price of packaging Unit: Euro (Euro) ?	3

### Ranking list



## MARKET SITUATION AT MONTH 1 (JANP - GAME OPEN)

[START GAME](#) | 
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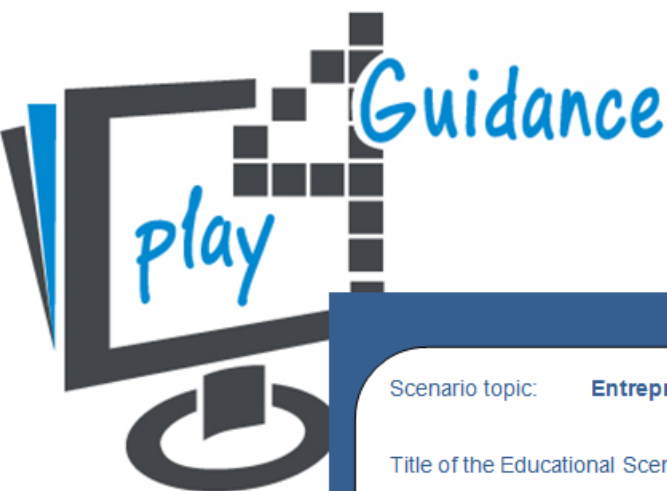
[Game](#) | 
 [Current situation](#) | 
 [General View](#) | 
 **[Parameters](#)**

- SUPPLY MANAGEMENT
- PRODUCTION MANAGEMENT
- MARKETING AND SALES MANAGEMENT
- OVERALL RESULTS OF MANAGEMENT
- MARKET RESEARCH

Parameter name	Parameter value
Active interest rate (percentage)	0
Additional charge for post-pay payment of machines (percentage)	0.05
Expenditure on technology that is necessary for efficiency (Euro)	25,000
Annual expenditure on training (Euro)	10,000
Purchase cost of a machine (Euro)	30,000
Expenditure on technology that is necessary for effectiveness (Euro)	25,000
Interest rate liabilities (percentage)	0
Maximum number of products per unit of raw material (number of products/kg)	9
Minimum number of products per unit of raw material (number of products/kg)	7
Number of workers for a machine (number of workers)	2
Manual capacity (kg)	10
Capacity with machines (kg)	50

## PLAY4GUIDANCE

A European Business Game to train and guide students and young unemployed on entrepreneurial, transversal and mathematical skills



Scenario topic: **Entrepreneurship**

Title of the Educational Scenario: **“Making ends meet”**

SCENARIO STRUCTURE: **3 Sessions**

TIME: **10 hours**

AUTHORS: **Zacharoula Smyrniou, Michael Kostoglou, Evangelia Petropoulou**

The scenario was designed and developed in the context of the ‘P4G PLAY FOR GUIDANCE’ European project

<http://play4guidance.eu/p4g-resources/>

## Scenario Topic Entrepreneurship

### “Making ends meet” Business Operation Road Map

#### AUTHORS:

NKUA  
Zacharoula Smyrniou,  
Michael Kostoglou,  
Evangelia Petropoulou

#### SCENARIO STRUCTURE:

3 Sessions

#### TIME:

10 hours

#### OUTCOMES:

- Understanding what a business is and how it operates
- Developing strategic plans to enable decision making
- Identifying the components of a business plan.
- Developing competences
- Identifying the components of business operation
- Identifying the resources of information for each part of business operation.
- Marketing of manufacturing products
- Making decisions based on constraints

#### INTRODUCTION:

The scenario is intended for both unemployed and university students who want to train how to start and manage a new business. The scenario addresses the authentic situation of the current difficult financial state of several European countries and aims to train and guide users in managing a start-up business throughout an economic crisis.



## Training Innovation Competences: Findings

- Business Game + OER + Scenarios
  - <http://play4guidance.eu/p4g-business-game/>
- Business Games must be enriched by meaningful OER and scenarios
  - Trainer Guide: <http://play4guidance.eu/wp/wp-content/uploads/2016/02/Trainers-guide-reviewed-final.pdf>
- Innovation competences are needed in many target groups but very different depending on the national / regional context
- Attitudes play a crucial role for innovators
- The Business Game could serve as a starting point for international entrepreneurs

# Creating a Generation of Cross Border Entrepreneurs

- Joint Simulation Games
- Globally shared and local OER
- Common Cross-Continent Scenarios
  - Connecting students
  - Connecting cultures
  - Creating initial trust
  - Performing cross border idea development (“born global innovation”)
- Creating a generation of collaborative innovators by
  - Building a common innovation environment (e.g. Slush)
  - Building a common virtual environment (e.g. [www.idea-space.eu](http://www.idea-space.eu))
  - Building OER and Scenarios / OEP around innovation

## Summary

- Innovation is the key success factors for individuals, organizations and countries
  - Innovation competences
  - Innovation attitudes
- Business Games can be meaningfully used for innovation training / education
- OER and OEP / Scenarios are necessary
- Basis for cross-border innovation
- Processes, competences and OER are available
- An ASEM Innovation Space could train, prepare and guide young innovators from Asia and Europe!



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Thank you for listening!

*Questions? Comments?*



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Web:

<http://en.hochschule-ruhr-west.de/research/computer-science/institute-members/professor-jan-pawlowski.html>

<http://play4guidance.eu/>

<http://www.idea-space.eu/>

E-Mail: [jan.pawlowski@hs-ruhrwest.de](mailto:jan.pawlowski@hs-ruhrwest.de)