

# Czech-German-Cross-Border Situational Awareness for Critical Infrastructures

Project manager: Prof. Dr. Markus Bresinsky (OTH)

Project assistant: Johanna Schröder (B.A.) (OTH)

Project partner: doc. Dr. Ing. Jan Voráček, CSc. (College of Polytechnics Jihlava)



## **University of Applied Sciences Regensburg (OTH)**

- Approximately 11.500 students, 225 professors and 530 employees
- active network of around 150 partners in industry
- 200 partnerships with universities





# **Project details**

| Title             | Czech-German-Cross-Border Situational Awareness for Critical Infrastructures               |
|-------------------|--|
| Project manager   | Prof. Markus Bresinsky   |
| Project assistant | Johanna Schröder (B.A.)  |
| Project partner   | doc. Dr. Ing. CSc. Jan Voráček (College of Polytechnics Jihlava)                           |
| Topics            | Critical Infrastructures, Cross-border situational awareness, Cybersecurity                |
| Region            | Easzern Bavaria, Czech Border region   |
| Duration          | 1st of October 2019 to 31st of December 2012   |
| Funding body      | Bayerisch-Tschechische Hochschulagentur (BTHA) (Bavarian-Czech agency of higher education) |



## 3. Thematic overview

### **Focus**

- Critical infrastructures, cyber security
- Dependencies, especially peripheral areas
- Creation of a shared problem understanding and situational awareness
- Preparedness, resilience

#### Characteristics:

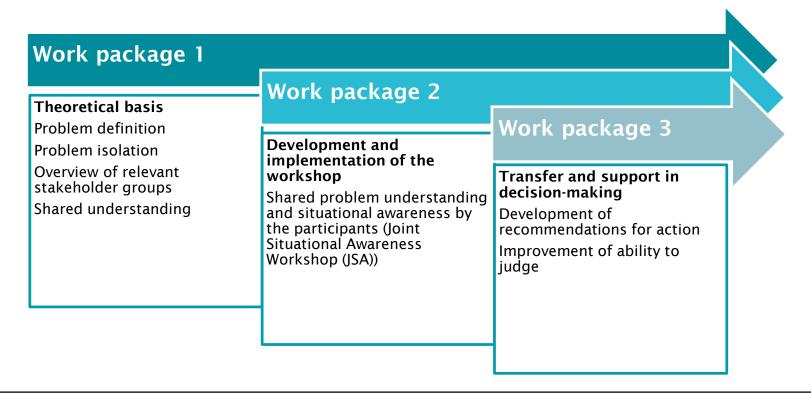
- System-of-Systems Approach
- Cross-border (Eastern Bavaria Czech Republic)







## Work packages





**Project timeline** 

|   | !         |      |            |    |           |     |            |    |           |
|---|-----------|------|------------|----|-----------|-----|------------|----|-----------|
|   | 2019      | 2020 |            |    | 2021      |     |            |    |           |
|   | Q4        | Q1   | Q2         | Q3 | Q4        | Q1  | Q2         | Q3 | Q4        |
| WP 1<br>(Problem definition,<br>collection of stakeholders) |           |      |            |    |           |     |            |    |           |
| WP 2 (Development and implementation of the workshop)       |           |      |            |    |           | JSA |            |    |           |
| WP 3<br>(Transfer and support in decision-making)           |           |      |            |    |           |     |            |    |           |
| Project report BTHA   |           |      |            |    |           |     |            |    |           |
| Project meetings  | 1<br>(CZ) |      | 2<br>(GER) |    | 3<br>(CZ) |     | 4<br>(GER) |    | 5<br>(CZ) |
| Publications  |           |      |            |    |           |     |            |    |           |

December 2019



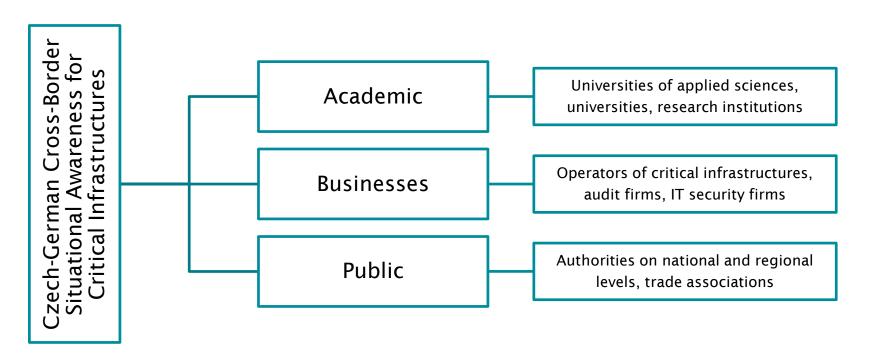
## **Work hypothesis**

Critical Infrastructures are more and more connected to information systems which increases their vulnerability towards cyber attacks. In order to achieve a high level of protection of Critical Infrastructures, not only single systems should be analyzed but also the bigger system in which they act. This means that the effects a disruption or a failure might have on other bodies need to be considered when developing measures to protect those infrastructures. This approach is called **Systems-of-systems Approach (SoS-Approach)**.

In order to implement this approach, therefore, operators of critical infrastructures have to be connected with actors affected by a disruption or failure and those who have knowledge to develop approaches to increase protection of Critical Infrastructures. Thus, solutions can be jointly developed.



## Stakeholder fields





# **Potential stakeholders Czech Republic**

#### Academic field

| University                             | Department   | Field/Position                                |
|--|--|---|
| University of West Bohemia             | Technology Transfer Office<br>Pilsen                                 | Chairman of the<br>Technology Transfer Office |
| Charles University Prag                | Institute of Political<br>Studies, Department of<br>Security Studies | Professor for Security<br>Studies             |
| Masarysk University Brno               | Faculty of Social Studies  | International Institute of Political Science  |
| Brno University of<br>Technology (BUT) | Business and Management<br>- Institute of Informatics                | Cyber criminology, cyber kinetics             |



# **Potential stakeholders Germany**

#### Trade associations

| Institution                                     | Position   | Field                                  |
|---|--|--|
| Europa Region Bayerischer<br>Wald - Böhmer Wald | Networking manager<br>Bavaria  | Connecting businesses and universities |
| Europaregion Donau-<br>Moldau                   | Contact person for univeristy cooperation in the Danube and Moldova regoin | Connecting universities                |



# **Potential stakeholders Czech Republic**

#### Trade associations

| Institution                                | Position  | Field  |
|--|---|--|
| German/Czech chamber of commerce in Prague | Chairman of the<br>Competence Center for<br>future technologies | Connecting, network of Czech companies   |
| Industrial chamber of commerce in Pilsen   | Working at the chamber of commerce                              | Connecting with companies in the field of cybersecurity and critical infrastructures |



## **Next steps**

- Common problem definition and linguistic framework
- Overview of relevant stakeholder groups