



PORTABO

Open Data Platform for the Region of 21st Century

One Platform for all is better



INTRODUCTION

Beauty and Pain

01

SMART REGION CONCEPT

Opportunity for change

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WHY PORTABO

From coal region to region of
21st century

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EXPERIENCES

Flexibility, efficiency
independence





01

INTRODUCTION

Beauty and Pain

ÚSTÍ REGION

SOME FACTS AND FIGURES

AREA

- 5 335 km² (6,8% of Czech Rep.)

POPULATION

- 820 789 (7,7% of Czech Rep.)

NUMBER OF MUNICIPALITIES

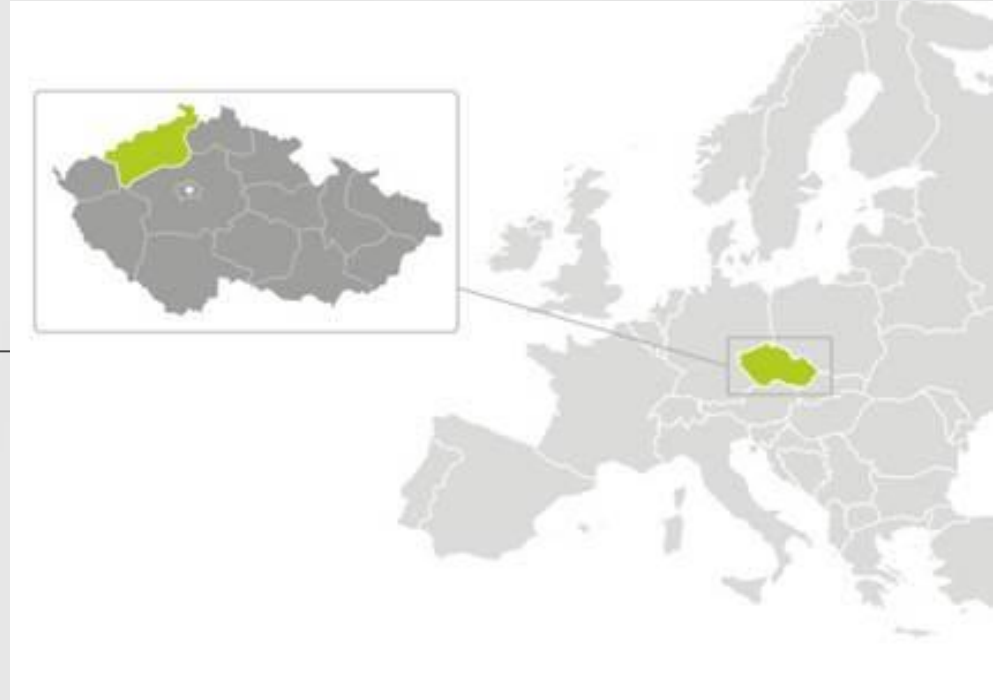
- 354 (city statute 59)

MAIN SECTORS OF INDUSTRY

- Energy, coal mining, engineering, chemical, glass industry, agriculture

2 UNIVERSITIES

- UJEP Ústí nad Labem
- CTU Faculty of Transportation Děčín





02

SMART REGION CONCEPT

Opportunity for change

SMART REGION CONCEPT

services of the region
Unified Smart Data Platform

education

- e-learning
- virtual reality
- digitalization

social services

- on-line social services
- wearable sensors

transportation

- intelligent crossroads
- intelligent parking
- integrated transport
- e-mobility
- bike sharing
- multimodal transport

security

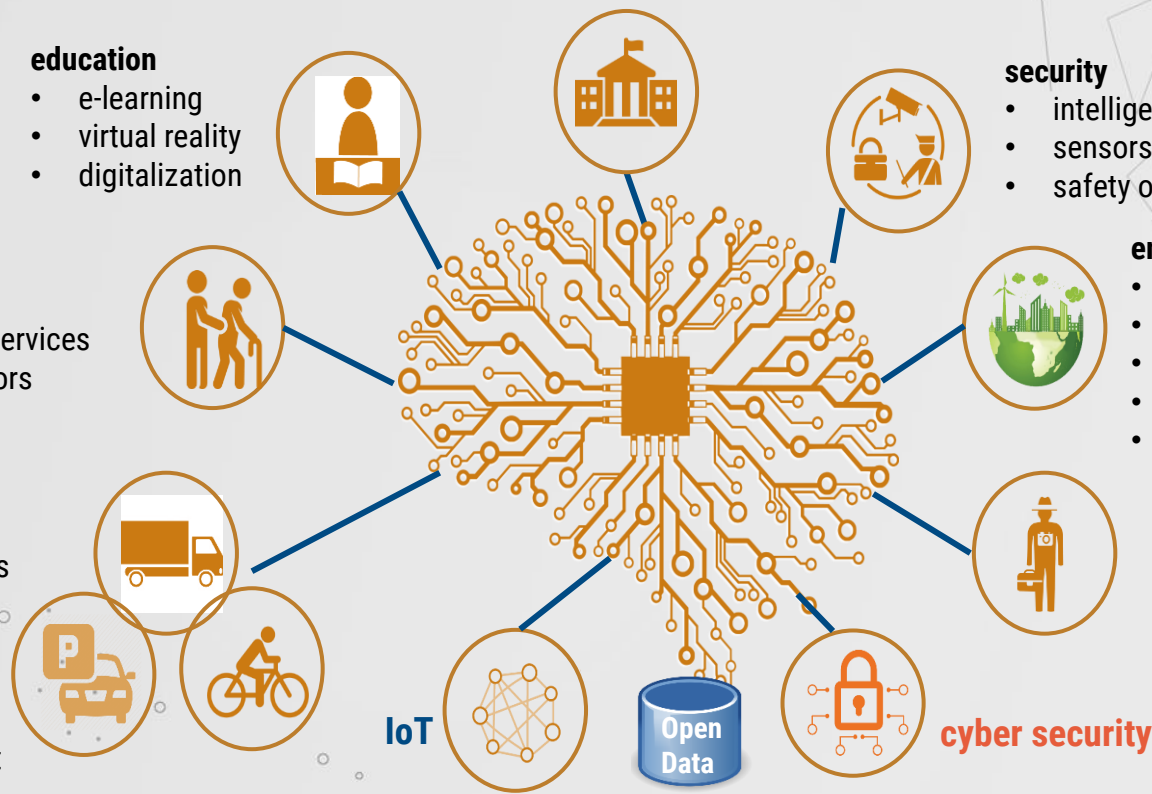
- intelligent CCTV systems
- sensors
- safety of children, seniors, women

energy

- Smart Grid
- Smart Buildings
- intelligent lighting
- renewable resources
- circular economy

tourism

- digital services
- leisure activities



IoT



cyber security

PORTABO

Unified Smart Data Platform

HOLISTIC VIEW

- Our strategy is cooperation
- The conversion of the Coal Region to the Region of the 21st Century is a multidisciplinary task
- Smart Region concept is one of the ways to improve the lives of people in the region
- PORTABO is one of the basic stones of this concept

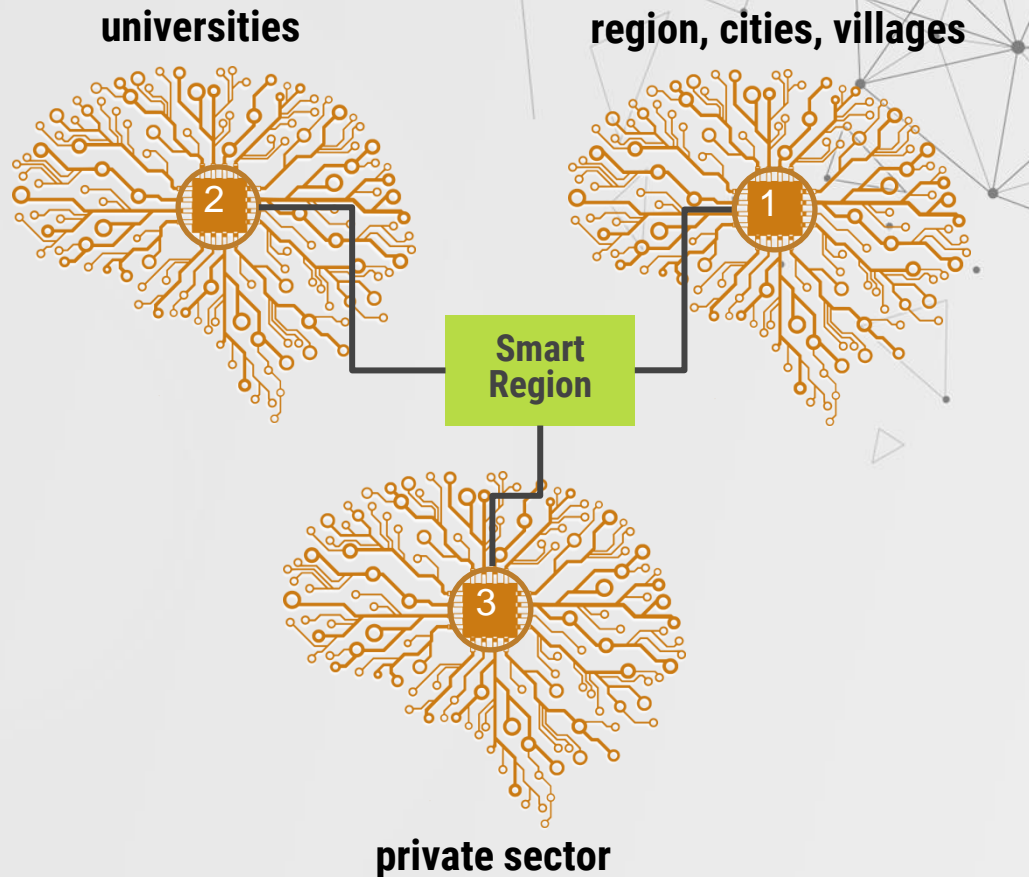
- Unique model of cooperation

Owner and sponsor – regional government

Operator and data analytics – university

Data providers are also beneficiaries

state, region, municipalities, private sector,
nonprofit sector, people





03

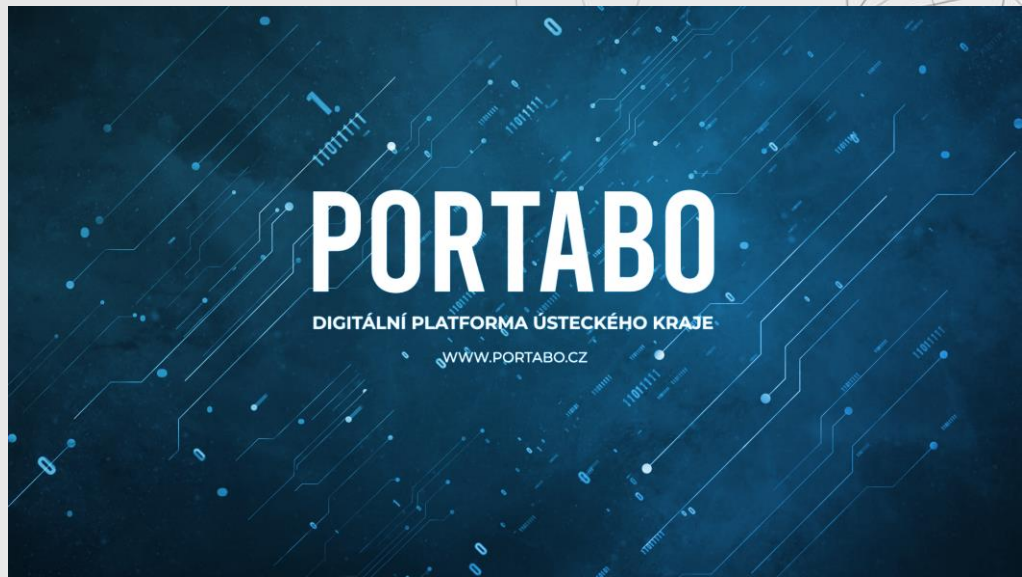
WHY PORTABO

Porta Bohemica = PORTABO

PORTABO

ONE DATA PLATFORM FOR REGION

- PORTABO - One unified data platform for regional government, cities and villages and other subjects in Ústí Region
- One unified data platform for region and 59 cities is much better than 59 cities data platform in one region
- Thanks to the interconnection of regional and municipalities' data, we can prepare new services, new information, new applications for all
- Positive impact on the quality of life in the region
- Our experience is transferable to other regions



WHAT KIND OF DATA IS AVAILABLE?

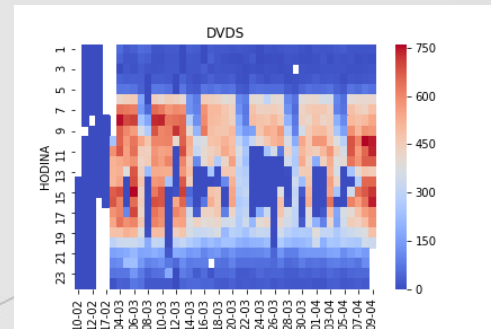
Data domains are in accordance with our Smart Region concept (1st 3 domains now)

Smart Transportation

- GPS data of buses and trains
- Detection of parking space occupancy (via senzors or cameras)
- Data from traffic light controllers
- Data from WAZE navigation systém
- Data about traffic (numbers of cars) from municipality traffic radars

Smart Energy

- Data from smart meters (electricity, gas, water, heating)
- Data from energy invoices
- Data about the production of rooftop PV plants
- Data on eCars charging and their operation (42 eCars now, 80 by the end of this year)



WHAT KIND OF DATA IS AVAILABLE?

Environment

- Meteo data from CHMU and from cities meteostations
- Monitoring the condition of rivers levels – flood risk analysis
- Air quality monitoring (CO_x, NO_x, dust particles, etc.)
- Smog prediction
- Monitoring water quality in swimming pools and reservoirs

Analytical outputs

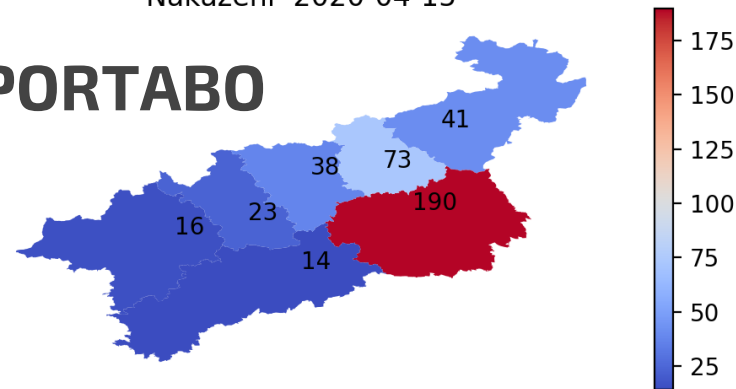
- Heat maps
- Predictions
- Statistics
- Open Data sets
- Ad hoc outputs



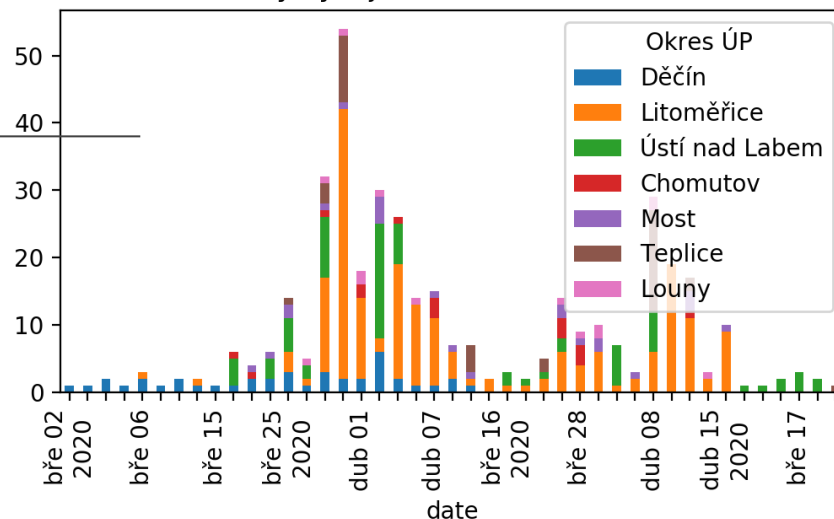
Nakažení 2020-04-15

COVID 19 AND PORTABO

- During the work on the first three domains COVID 19 crisis erupted
- Based on data from the regional hygiene station, we created a heat map of the spread of COVID19 in the region
- We have offered the use of PORTABO to the crisis staff of the region - now we are arranging the necessary scenarios
- We are preparing analytical data for SWOT analysis of procedures in a crisis situation
- The possibility of a quick response is one of the biggest benefits



Časový vývoj v okresech - Nakažení



04

EXPERIENCES

Flexibility, efficiency, independence



FIRST EXPERIENCES

- Bet on Open Source was the right decision
- Cooperation with the university has proved its worth
- The initial costs were about 3 million CZK (117 000,- € approx.)
- The annual costs for basic functionalities will be about 5 million CZK (200 000,- € approx.)
- Considered business model
 - 59 cities – 50 000,- CZK per year = 2 950 000,- CZK
 - 295 villages – 15 000,- CZK per year = 4 425 000,- CZK
 - regional government = 3 000 000,- CZK
 - Total: 10 375 000,- CZK (407 000,- €)**
- We want to connect most of the region's municipalities to the PORTABO within two years



RECOMMENDATIONS AND LESSONS LEARNED

- Be brave – they will tell you it won't work
- Communicate with all – everyone in region must find benefits for themselves
- Convince municipalities – municipalities creates a region, without municipalities, you will only create a regional government platform
- Collaborate with universities
 - will teach you to work with your data
 - will teach students to work with your data
 - will suggest what can be done with your data
 - will prepare great data analysts for your region
- Solve the basic dilemma – Open Source or Vendor solution
- Open Source – freedom, flexibility, cost effective, greater control over outputs – but more work for internal team, necessary competencies
- Vendor solution – delegated responsibility for the result, less work for internal team – but no freedom, no flexibility, the strategy is determined by someone else



THANK YOU FOR YOUR ATTENTION



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Smart Region
Member of expert team
Coal Region in Transition

