Wildfire Early Detection System in the Czech Republic (W E D S)

Funding Program: UCPM-2024-TRACK1 – Technical Assistance for Disaster Risk Management

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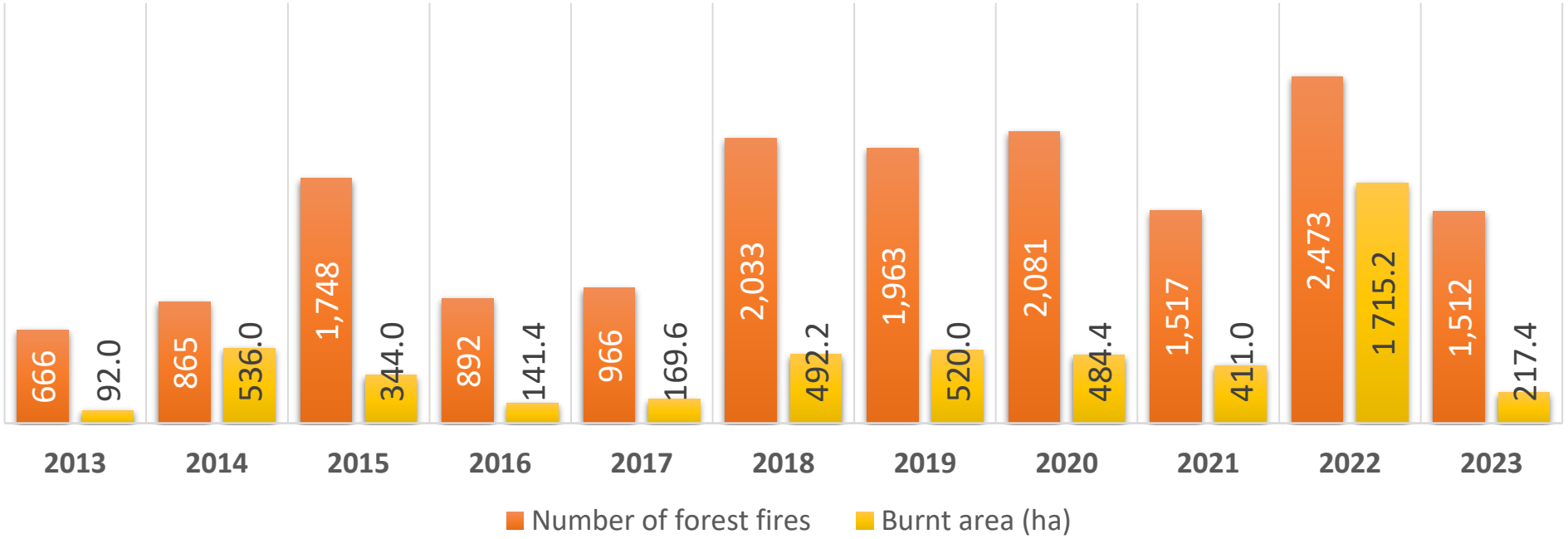
Background & Rationale

- Increasing wildfire risks due to climate change
- Current wildfire detection relies on human observations
- No national / no regional early detection system for wildfires in place
- Need for advanced technology integration
- Alignment with EU Wildfire Prevention Action Plan

Basic Statistics – Forest Fires in the Czech Republic

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Number of forest fires	666	865	1 748	892	966	2 033	1 963	2 081	1 517	2 473	1 512
Direct losses (mil. EUR)	0.20	0.25	0.76	0.22	0.26	0.61	0.71	0.76	0.33	2.02	0.58
Salvaged values (mil. EUR)	3.09	3.36	25.17	7.97	3.47	11.07	13.04	10.48	6.73	12.17	7.84
Fatalities	0	2	1	0	2	0	0	2	0	0	0
Injuries	7	10	33	6	9	35	31	21	15	63	22
Burnt area (ha)	92.0	536.0	344.0	141.4	169.6	492.2	520.0	484.4	411.0	1 715.2	217.4
Average burnt area (ha)	0.1	0.6	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.7	0.1



National Park Bohemian Switzerland – forest fire VII-VIII/2022

Stakeholders & Collaborations

- Coordinator / beneficiary
  - Directorate General of the Fire and Rescue Service of the Czech Republic
- Associated partners – key ministries
  - Ministry of Agriculture
  - Ministry of Environment
  - Ministry of Regional Development
- Associated partners - universities
  - Czech University of Life Sciences, Prague
  - VŠB – Technical University, Ostrava
- Other stakeholders
  - Research institutions, private sector partners, regional stakeholders

- Duration
  - 18 months (started on 1 January 2025)

Project Objectives

- Coordinator / beneficiary
- Conduct analysis of wildfire detection technologies
- Identify and assess applicable early detection systems
- Engage stakeholders
- Develop a national strategy
- Conduct pilot studies
- Provide policy recommendations

Key Activities & Work Packages

- WP1: Project Management & Coordination
- WP2: Analysis of Existing Technologies
- WP3: Action Plan Development
- WP4: Pilot Study & Technology Demonstration

Expected Outcomes & Impact

- Improved understanding of wildfire risk
- Identification of feasible detection system options
- Strengthened collaboration among stakeholders
- Policy recommendations
- Contribution to climate adaptation & disaster management

Sustainability

- Long-Term Sustainability by integration into national policy, ongoing research and training

Next Steps & Conclusions

- Continue research & technology evaluation
- Conduct study visits & stakeholder engagement
- Develop action plan & test selected solutions
- Final conference & dissemination of findings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