EXELIS

Visual Information Solutions

Case Study:
ENVI helps Czech scientists compile national inventory of contaminated sites

CUSTOMER CHALLENGE

Despite considerable work being carried out to rectify some of the Czech Republic's environmental issues since the political reforms of the 1990s, agricultural activity still poses a threat to the environment and human health – particularly as productivity increases, which can lead to a higher output of pollutants.

In response, the Czech Environmental Information Agency (CENIA) has undertaken a project focused on the creation of an inventory of contaminated, and potentially contaminated areas in order to begin the process of rehabilitating the affected areas.

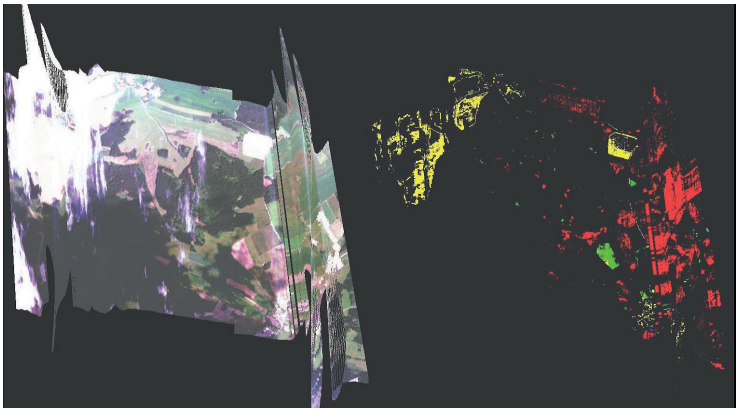
SOLUTION ACHIEVED

The first phase of the National Inventory of Contaminated Sites (NiKM) project has recently been completed (2009-2013), and following the completion of the second phase (2013-2015), the project will contribute to the eventual elimination of all water and soil pollution in the Czech Republic.

Phase one of the NiKM project focused on obtaining an overview of all contaminated locations, using ENVI to interpret multispectral satellite imagery in order to test and identify the affected areas. This involved creating training sets for the selected sites and verifying them within ENVI for their spectral seperability.

CENIA had to ensure the inventory was as accurate and effective as possible for the agencies carrying out the remediation work. It had to verify the possibility of using hyperspectral data to detect the contaminated sites by testing satellite, aerial and laboratory-measured data – all carried out using ENVI's built-in tools.

The NiKM project used ENVI to interpret multispectral satellite imagery to test and identify the affected areas.

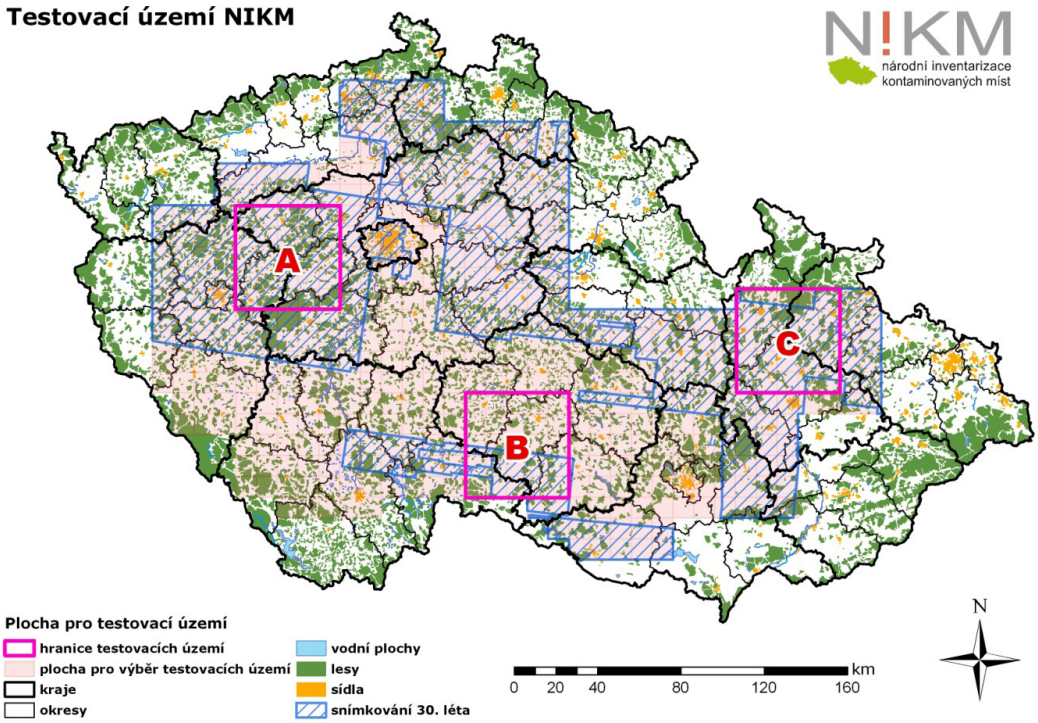


ENVI

The National Inventory of Contaminated Sites has been made more accurate, compiled quicker and used fewer resources thanks to the inclusion of ENVI.

ENVI played an important role in not only in assessing the suitability of multispectral data to identify different areas, but also in the preparation of data. ENVI's Atmospheric Correction module enabled the team at CENIA to remove the atmospheric effects and image noise in measured data.

With a land mass of 78,866 km², the creation of a National Inventory of Contaminated Sites has been made more accurate, compiled quicker and used fewer resources thanks to the inclusion of ENVI, supplying all the relevant information to facilitate the remediation of contaminated sites and improve the quality of water and soil of the Czech Republic.



To find out more about ENVI visit www.exelisvis.eu

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