From geodata to dialogue

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A data foundation for the INTERESH Regional Action Plan

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CCSS: the role defined in the proposal

T2.5: prepare the data	Identify Apulian sources and resolve feasibility, access and interoperability.
T3.4: Experimental Action 4	Combine LLMs, regional GIS and regulatory evidence for the Regional Action Plan.
D3.4 and Policy Lab	Produce the plan and transferable framework. T5.2 provides stakeholder validation.

Source: INTERESH proposal, T2.5, T3.4 and T5.2.

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Data are the fuel for AI

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“The fuel is data.
And only data.”

Regional answers require regional evidence.

Coverage, quality, dates and provenance define what we can conclude.
AI cannot replace missing measurements or local validation.

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What is GeoAI?

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Artificial intelligence combined with geographic data and spatial analysis

Geographic context

Where something happens, how places relate and how conditions change over time.

Agricultural applications

Land-cover classification, change detection and spatial assessment of agricultural conditions.

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What is JackDaw?

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A GeoAI platform for asking questions and working with geographic data

Conversational interface

Users describe their question in ordinary language and inspect the spatial response.

GIS and analytical tools

JackDaw connects the question to available datasets and operations, building on PoliRuralPlus.

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How JackDaw connects a question to a map

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1. Ask a spatial question

Specify the place, topic and relevant constraints.

2. Connect data and tools

Interpret the request and use the available geographic data and analysis functions.

3. Inspect the result

Review the map or summary and check the source, method and limitations.

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Yesterday, today and the next step

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Yesterday / today	Browse the geoportal, select layers and interpret the map.
Our current position	Explore Apulian land use and demonstrate questions linked to spatial analysis.
The direction	Discuss the data, inspect the evidence and develop regional planning options.

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Today: Hub4Everybody in Apulia

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LIVE DEMONSTRATION

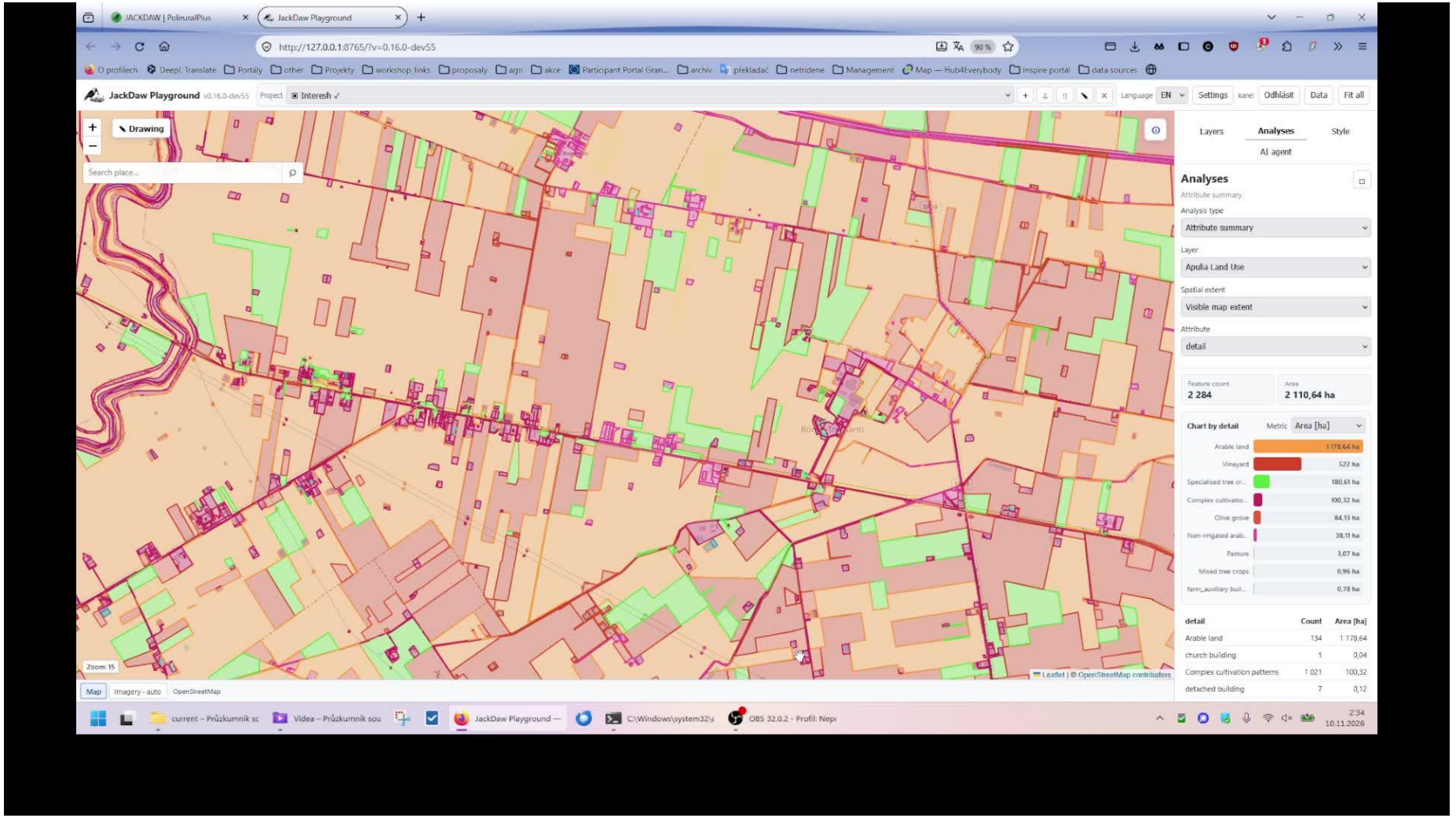
The data we can already explore in a conventional geoportal

[Open the Apulia map in Hub4Everybody]

Select a layer. Inspect its attributes. Explain its meaning.

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Current demonstration: Apulian land use



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The next interaction: discuss the data

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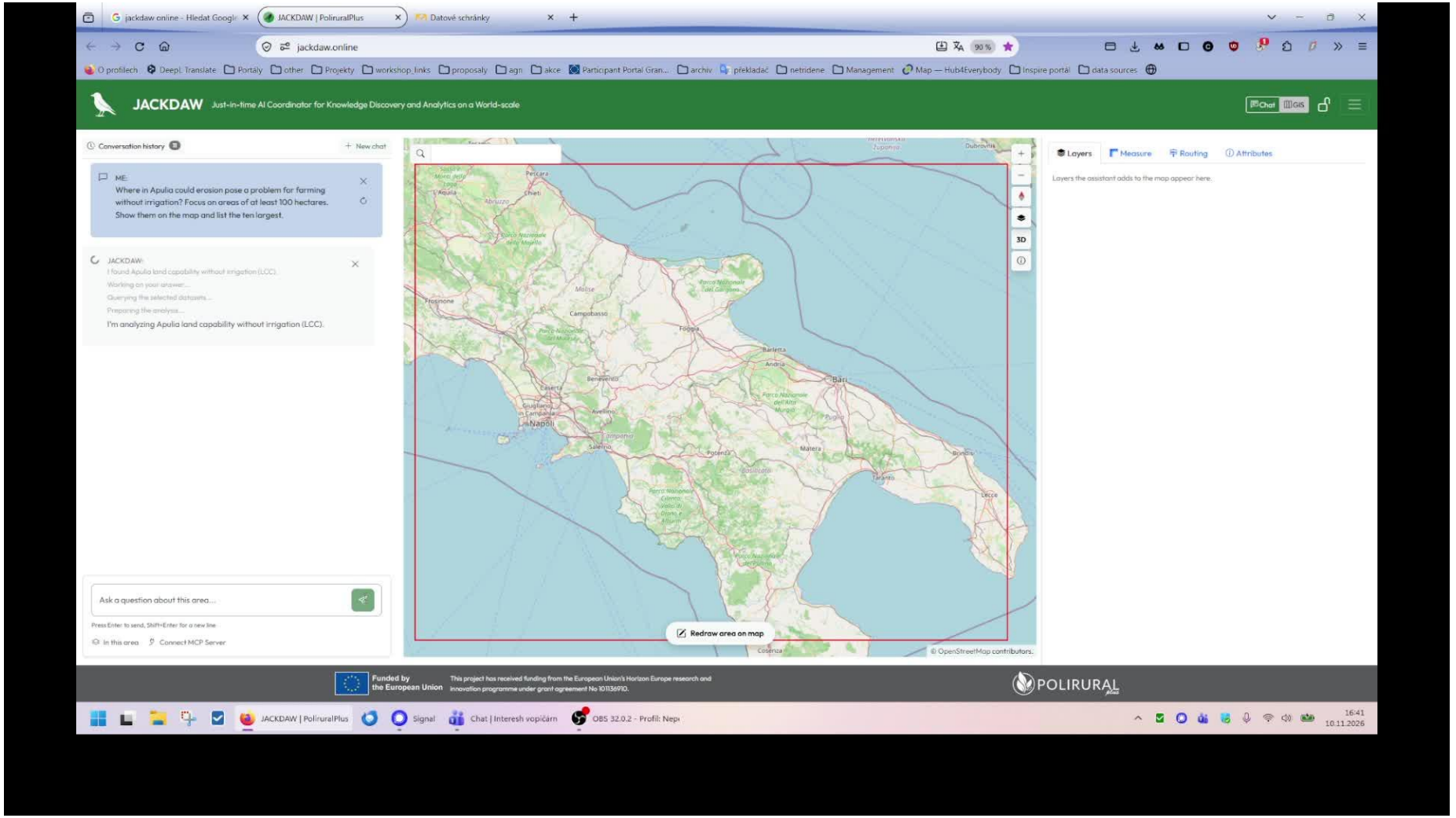
“Where in Apulia could erosion pose a problem for farming without irrigation?”

Focus on areas of at least 100 hectares.
Show them on the map and list the ten largest.

A useful answer must expose its dataset, method and limitations.

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Current demonstration: a question to JackDaw



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We are halfway: the regional evidence is incomplete

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What we can show

A regional map interface
Land-use exploration and summaries
An example of dialogue linked to GIS

What needs regional partners

Soil observations and validation data
Management and irrigation information
Experiment results and local context
Relevant policies and data permissions

“Halfway” describes our position, not a quantified completion rate.

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The data agenda follows the proposal

Regional spatial evidence	Land use, LPIS and relevant soil or land-capability layers.
Observations over time	Satellite imagery, IoT and drone observations, linked to field measurements.
Practices and experiments	Management context and evidence from the experimental actions.
Policy and provenance	Regional, national and EU rules, source ownership, dates and access conditions.

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From a question to evidence for the plan

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Question and scope	Define the area, time period and planning decision.
Data and analysis	Record sources and methods. Map results and uncertainty.
Expert and regional review	Check interpretation, local feasibility and economic implications.
Regional Action Plan	Translate reviewed evidence into options for Policy Lab validation.

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The next step needs a shared regional effort

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Regional partners	Identify data owners, access conditions and a suitable validation dataset.
Joint scoping	Agree one priority soil-health question and one test area.
Joint demonstration	Review maps and traceable answers before extending the workflow.

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The direction is clear

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Today we explore the map.
Next we discuss the evidence.

More regional data will determine
how far we can move towards the Action Plan.

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