

The German Funding Measure LURCH

“Sustainable Groundwater Management”



Facts and Figures

- A funding measure of the Federal Ministry of Research, Technology and Space
- 10 Research Projects and 1 Networking and Transfer Project
- 63 Partner
- Duration: 12/2022 - 05/2026



Goals

- Safeguarding sustainable groundwater management in Germany
 - Achieving good qualitative and quantitative groundwater status
- Safeguarding our drinking water resource and protecting and preserving the groundwater ecosystem**



Networking- and Transferproject LURCHplus

- Support and cross-thematic networking of the 10 joint projects internally and with external stakeholders
- Supporting the transfer of results and implementation in practice by establishing networks and collaborations

Research Projects



Study locations of the research projects



1



CHARMANT

Characterization, assessment and management of urban aquifers

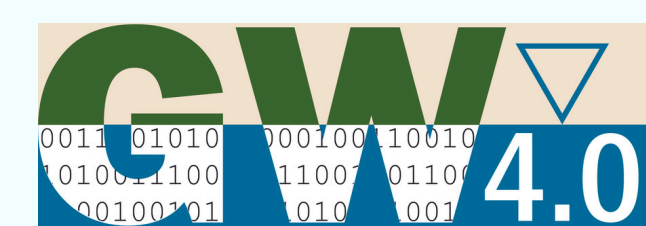
2



gwTriade

Ecological and ecotoxicological groundwater quality monitoring based on an integrative triad approach

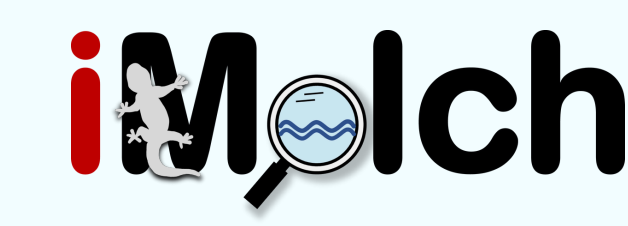
3



GW_4.0

Climate-adapted groundwater management through real-time planning tools and model-based future scenarios

4



iMolch

Sustainable water management concepts for Germany by using innovative monitoring strategies

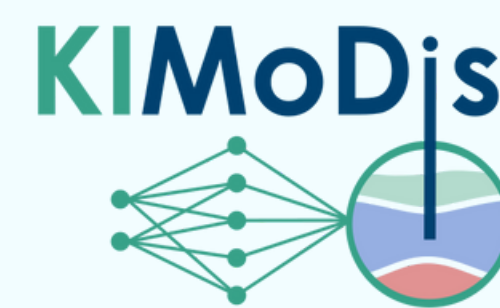
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IsoGW

Groundwater Isoscapes for Germany: Water Isotopes as an Innovative Tool for Sustainable Water Management

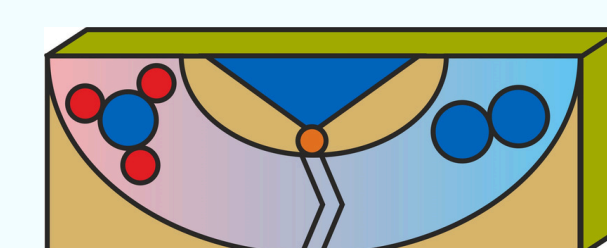
6



KIMoDIs

AI-based monitoring, data management and information system for coupled forecasting and early warning of low groundwater levels and salinisation

7



NitratLurch

Stimulation of H₂/CH₄ oxidizing bacteria in pore aquifers for purification of nitrate-polluted drinking water and process water

8



PFClean

Innovative modular system for sustainable remediation of PFAS contaminants from soil and groundwater

9



StressRES

Monitoring and modelling system for the assessment of stress on groundwater resources and public water supply

10



WaRM

Sustainable, flexible groundwater management in metropolitan areas based on a water system model using the example of the Frankfurt/Rhine-Main metropolitan region - Modeling, measures, governance

Key Challenges



- Rigid water rights (decades-long, not climate-adaptive)
- Data fragmentation & low digitisation (Heterogeneity due to conveyoralism)
- Water Decision Support Tools not User friendly enough
- Poor chemical status: 36% of groundwater bodies in Germany fail EU standards

What we need



- Better system understanding
- Standardised, efficient monitoring
- Improved data access & sharing
- Region-specific easy access decision-support tools for End-Users



www.bmbf-lurch.de

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