RenovAIte
Boosting renovation industry with AI

FR+DE Call for projects
AI for risks prevention, crisis management and resilience

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RenovALite is supported by Germany & France

« AI for risks prevention, crisis management and resilience »

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Project RenovAIte gathers a FR+DE consortium to boost renovation industry

RenovAIte
Building skills and experience on using AI for heavy infrastructure renovation
Delivering applicable software and results for every player in the ecosystem

Environmental impact: boosting energy renovation & reducing renovation resources consumption
Economical impact: better asset management & reducing renovation costs

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AI at the core of the project

- LIDAR data segmentation and computer vision
- Classification and scoring algorithms
- Reinforcement learning for designs optimization
- Adversarial Resilience Learning

Images from AI research from: Stanford, Eurovia, VINCI Energies, Stanislas Chaillou

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Developing a chain of interoperable AI software

Public & private owners need resources saving and resilient plans

Design offices and project managers need data and tools to assess and frame environmental impact

Construction companies need software to optimize designs both economically and environmentally speaking

Asset management software

Data acquisition & performance assessment software

Designs optimization software

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### Targeted impact: competitiveness, environmental savings and resilience

#### Costs
- Projects’ financing: staff, data acquisition
- Equipment for data collection: hardware
- Data storage and computing
- Consortium staff travelling

#### Direct gains
- 1m housing lots
- **70,000km** of roads
- **4,000** building design offices
- **Energy savings** (housing heating, driving on neat roads) *Ex: 0.02% of FR by 2030*
- **Resilient projects** (housing renovation, road durability)
- **Materials impact and workforce savings** (designs)
- **Less data acquisition costs** (less inspection required)

#### Indirect gains
- **Social impact**: data, household savings
- **Heavy infra circular economy** digitalization
- **Faster administrative and design processes**
- **Competitiveness**: European leadership, civil works market transformation

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Developing solutions for France and Germany’s economical and environmental strategies
Project contacts & management

Dr. Delphine Sangodeyi
Urban Renewal Director – Action Logement Services

Dr.-Ing. Eric Weith
Manager Competence Cluster Applied AI – OFFIS
R+D Group Manager Power Systems Intelligence

Dirk Ebersbach
Managing Director – VIA IMC