

Microscopic analysis of fluid-porous surface interaction



Business need

The analysis of interaction phenomena between fluids and surfaces is moving towards ever smaller dimensions (microscale). It is often microscopic defects that determine the success or failure of industrial processes: this aspect determines the need to analyse and measure microscopic phenomena, right from the initial research and design activities.



Solution overview

The solution, based on the detailed processing of X-ray microtomography (microCT) results, can be thought of as an 'eye' that enables the interaction phenomena between fluids and porous material surfaces to be analysed at a microscopic level. Using specialised equipment, it is possible to reconstruct digitised objects in 3D, which can then be analysed with very high resolution (down to 1 micron).



Key benefit

- Multidisciplinarity and versatility of application
- Possibility of gaining a significant competitive advantage
- Extreme visualisation accuracy

Contacts

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Target

Automotive	Food
Construction	Pharmaceutic
Aerospace	...

Development phase

0. Pre-seed
1. Research
2. MVP Testing
3. Patent request
4. Industrial scale-up

5. Ready for market launch

Thermodynamics: furnaces
and heat exchangers

Fluids

Microscale

Porous materials

Keywords



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