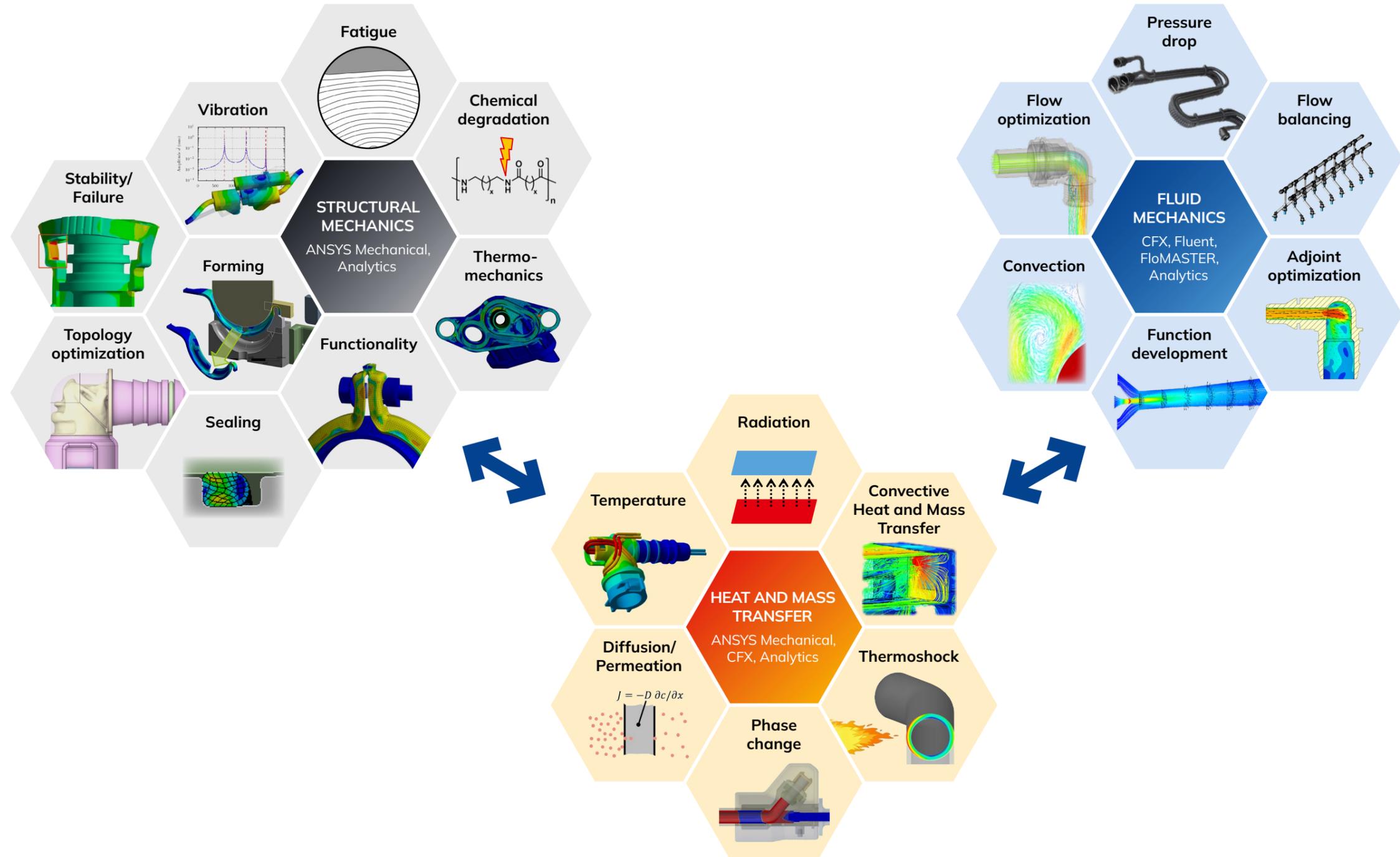


NORMA Group Simulation Competences: Empowering Engineering Excellence



Simulation capabilities at NORMA Group



Simulation makes a difference. And we can prove it.

This is what you will love!

- ✓ **Understand the physics to unlock innovation:**
Simulation reveals the science behind our products, enabling breakthroughs through deeper insight.
- ✓ **Smarter decisions, faster validation:**
Simulation enables early design optimization and virtual testing – reducing reliance on physical prototypes, supporting regulatory compliance, and minimizing costly late-stage changes.
- ✓ **Reduced development time and cost:**
Accelerate product cycles and cut costs through simulation-driven design and virtual testing.

Exemplary success stories:

- **Optimizing thermal management system performance:**
Quick Connector redesign **cut pressure loss by 46%***; new dry-break valve design reduced pressure loss by **64%***.
- **Optimizing components:**
eM Twist Quick Connector **strength improved by 400%** during development phase – maximizing material utilization.
- **Developing products from scratch:**
Jet pump developed based on simulation - proving even complex systems can be developed efficiently and quickly.
- **Reducing development time and cost:**
Lifetime simulations **predict polymer aging and fatigue**, while virtual testing reduces the need for physical prototypes.
- **Making the invisible visible:**
Simulation enables insights and new perspectives otherwise inaccessible, e.g. permeation, complex fluid flow, or advanced non-linear mechanics.

*Depending on volume flow, fluid, fluid temperature (Reynolds Number), flow direction and products used as reference.



Do you have questions or require a personal consultation?

Feel free to contact us: info@normagroup.com

Or visit our website for more information about our solutions: www.normagroup.com



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