

**MADE
WITH**
PROCESS & PURPOSE

patheon

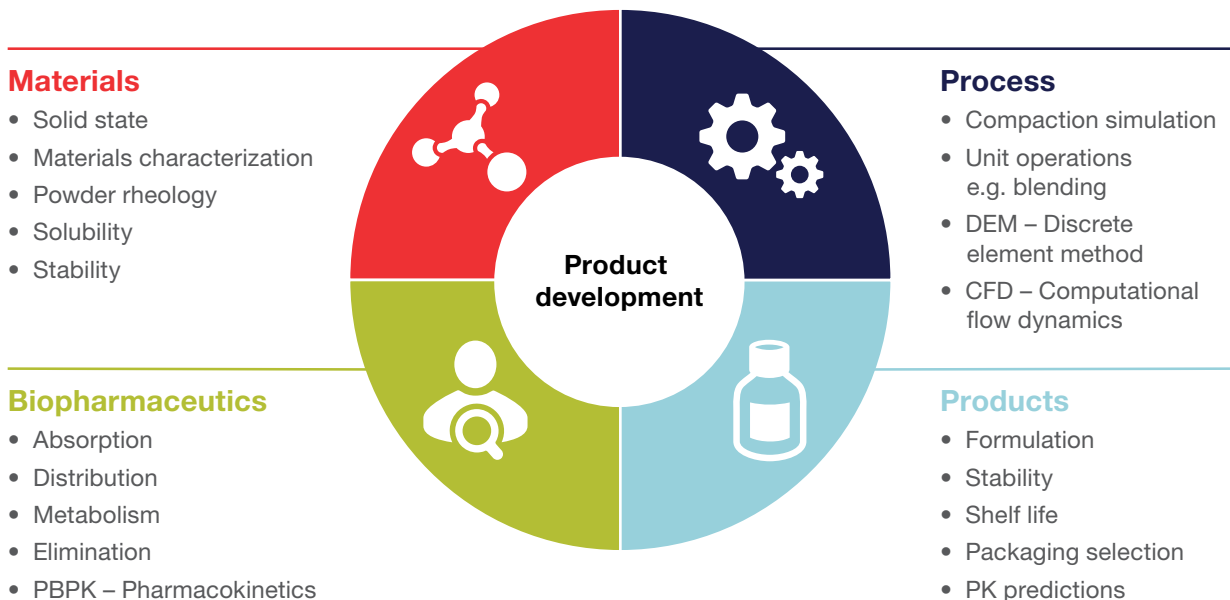
Engineered solutions support a holistic approach to drug product development

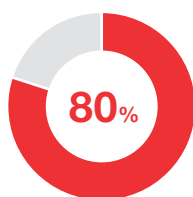
Enabling our scientific expertise with predictive tools to understand and address molecule challenges head-on

Engineered solutions adopt a comprehensive view of drug product development by looking at pharmaceutical ingredients, related manufacturing processes, products, and biopharmaceutical properties and how they are intrinsically connected and critical to the success of your product development. Using our in-silico models, engineered solutions will de-risk your development program and speed your molecule to the next milestone.

Understand molecule challenges and make smart decisions:

- ✓ Reduce risk in product development
- ✓ Shorten development timelines
- ✓ Reduce cost and avoid rework
- ✓ Reduce amount of API required
- ✓ Remove barriers in each development phase





Approximately 80% of molecules experience bioavailability challenges

Multiple in-silico model options suited to minimize experimental effort

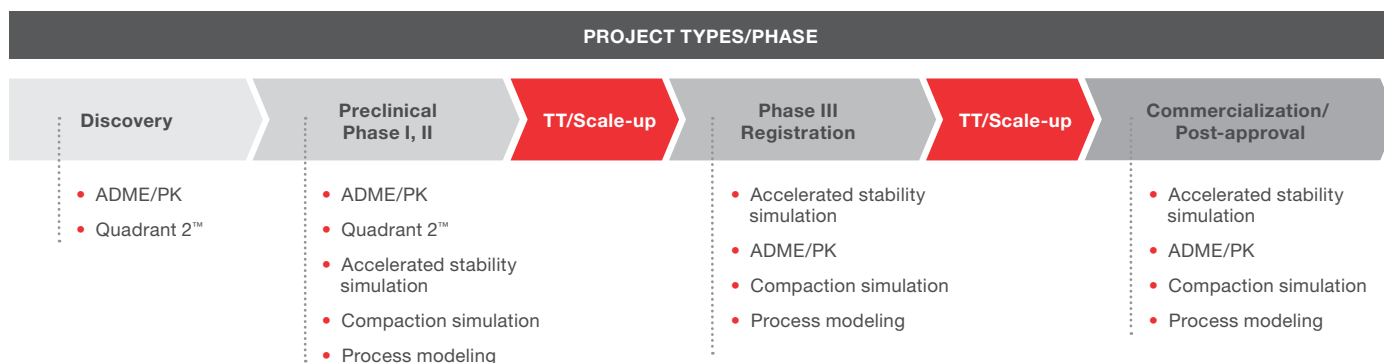
Bring your molecule and we'll bring our recommendations. We'll use the best solution suited towards your goals. Whether modeling solubility, stability, absorption, or other pertinent components that are essential to an oral solid dose drug, we'll choose the model(s) required to minimize experimental effort. Coupled with the breadth of expertise of our scientists, you'll save time and costs by avoiding empirical, trial-and-error approaches that are typical in product development.

Offering a suite of in-silico model options:

Quadrant 2™	Accelerated stability modeling	Process modeling	Pharmacokinetics
Selects the best technology to enhance solubility	For product shelf life and component compatibility	Understand material behavior and impact on process development	Gain an early understanding of how your product is metabolized

Understand molecule challenges early on for optimal efficiency, with continuation through commercialization

Utilize in-silico models in early development for reduced risk and optimized efficiency. From discovery through commercialization, various solutions can be applied to your molecule to ensure you take a smarter approach to product development.



Contact your local Thermo Fisher Scientific representative to learn more.