Dynamic Polymers Group

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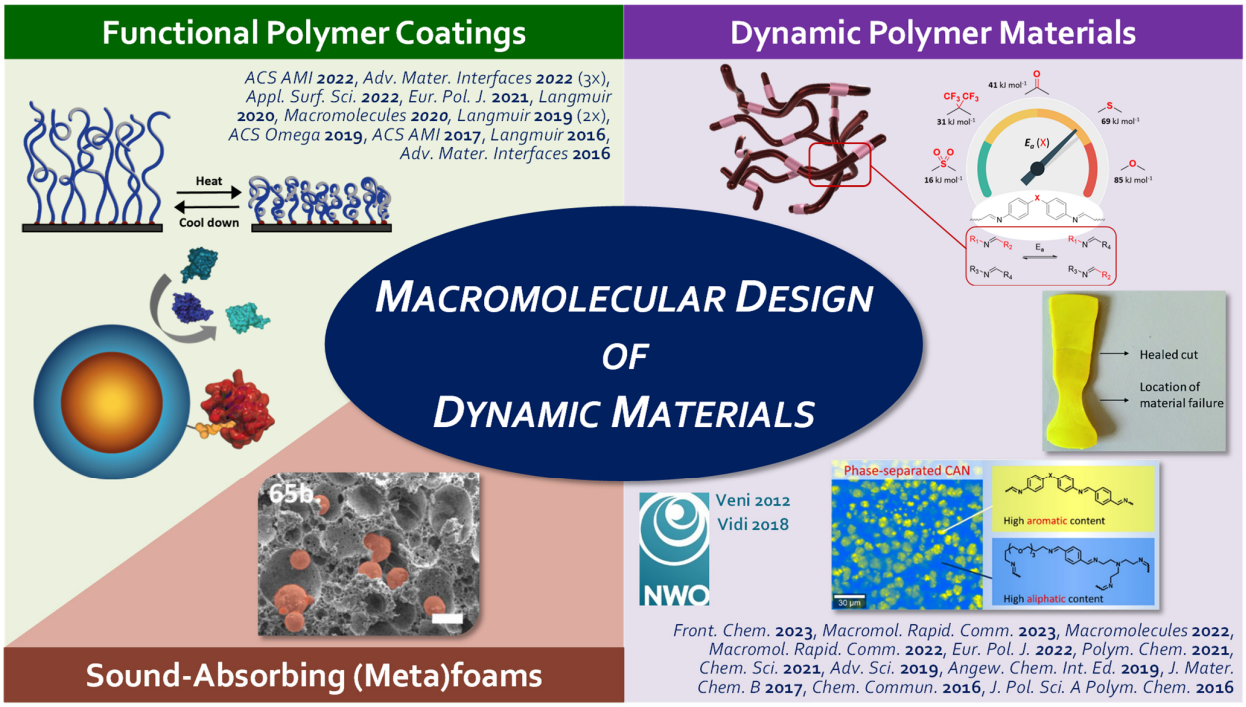
What we do: The research interest in my group combines organic and polymer chemistry to create 'smart', adaptive polymer-based materials, that can find applications in areas such as self-healing materials and surfaces, sensors, or adaptive materials.



The figure above gives a brief overview of the kind of research my group undertakes. Current projects in my group include the following topics:

- Robust, yet self-healing polymers based on imines.
- New dynamic-covalent chemistry for recyclable network polymers.
- Reprocessable, polyurethane-based networks.
- 3D printing of network polymers.
- Thermoresponsive coatings.
- Antifouling coatings.
- Surface modification for use in *in-vivo* sensors.
- Imine-based covalent organic frameworks for sensing.

Opportunities: As a member of my group, you have the opportunity to get involved in various areas of research involving different experimental techniques, ranging from organic synthesis of new building blocks to materials chemistry to characterize newly prepared polymer materials, and from rheometry studies on the self-healing materials to physical-organic studies to better understand the material behavior in response to certain stimuli.

Interested? If you want to find out more about the research going on in my group or if you are interested to do a project on this exciting research, please feel free to come by our Laboratory of Organic Chemistry or contact me directly (maarten.smulders@wur.nl; 0317–480485).