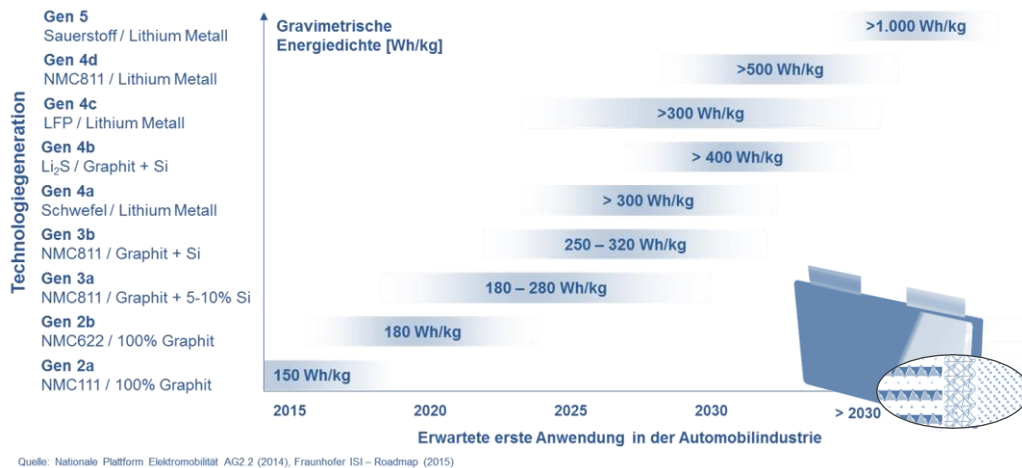


# Bachelorarbeit / Masterarbeit

## Potentials of Next Generation Batteries



### Initial situation:

Electrification of drivetrains in the automotive industry is one of the key challenges for a sustainable future mobility. The key component for environmental and commercial success is the high voltage battery. Modern Lithium-Ion batteries are relatively safe and offer high energy densities. However, to guarantee a fully electrified future mobility, safety and range of EVs must be further improved. The most promising approach in this context is the development of solid-state batteries using a lithium metal anode and a solid electrolyte. These next generation batteries promise higher energy densities and lower flammability and therefore could be another enabler for a sustainable mobility in the future.

### Your tasks:

Currently many different solid-state batteries are under investigation on lab scale. Not all of them suitable for automotive applications. Therefore, technical and economical requirements for automotive solid-state batteries must be analysed in a first step. Afterwards, existing technologies must be pointed out and assessed with regard to the requirements.

### Requirements:

- High motivation and commitment
- Interest in topics of electromobility topics
- Ideally first experiences in the field of battery technologies
- Fluent English or German language skills

### Your benefits:

- Comprehensive support
- Development of expert knowledge in the field of solid-state batteries
- Contact to experts from research and industry
- Insights into one of the most promising research topics for future mobility

### Have we caught your attention?

Please send your current transcript of records and curriculum vitae to the email address listed below.

### Your contact at PEM:

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