

Technology concept for bioasphalt: 100% recycling @ 0% fresh fossil fuels

Initiative: Zirkularität mit recycelten und biogenen Rohstoffen

Ausschreibung: Kooperationsprojekte

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In this project a technology concept for bioasphalt will be developed as a circular material for pavement construction. This bioasphalt is an asphalt mixture which consists of 100 % reclaimed asphalt material which reduces waste streams. Since the included fossil-based bitumen is heavily aged, the addition of fresh binder components is essential during asphalt recycling. For bioasphalt the typically required fossil-fuels are replaced by sustainable biobinders. The key innovative aspect is the identification and further development of suitable sustainable materials as biobinders, which will be systematically characterized based on mechanical and chemical laboratory testing. A suitable asphalt mix for bioasphalt will be designed and validated in terms of its performance. Finally, the bioasphalt is validated in the relevant environment by being produced in a large-scale asphalt mixing plant and by constructing two test sections. A sustainability and economic assessment of the novel technology concept is used to verify the environmental and economic impacts.

Projektbeteiligte

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