

IDEAS FOR A NEW TYPE OF BARRIER LAYER FOR RAILWAY TRACKS

Innovation project to develop new solutions for the implementation of the barrier layer under the rails. Railway tracks are exposed to high dynamic loads and must provide safe operation for years. To achieve this, one important function of the substructure under the permeable ballast bed is water drainage which is made possible by the installation of a barrier layer.

The SBB Infrastructure worked with konplan to define a project for generating and evaluating solutions for the construction and installation of a new type of barrier layer. Various SBB stakeholders as well as external experts were involved.

Broad search for ideas in collaboration with the customer and specialists

As the foundation for the subsequent ideation process, the project employees prepared the relevant use cases and gathered the specific know-how. Next, the interdisciplinary team generated a wide range of solution approaches in an internal konplan ideation workshop. The results were incorporated into a workshop at SBB with participants from various areas of expertise. The cooperative evaluation and development of the ideas and rough concepts were a key component of the workshop. konplan was then tasked to prepare and add detail to the rough concepts together with specialists from the relevant areas by conducting further research to solidify the approaches. Finally, the project team selected the most promising ideas for further development and included plans for implementation.

Concrete solutions with potential

In a workshop with persons responsible for SBB infrastructure, konplan presented the final results which could then be used for making decisions about the concrete measures for implementation. For example, an asphalt mixture that is already being used in the renovation of airport runways, and asphalt logistic solutions which handle the special temperature control requirements.

Result

- Documentation of use cases
- Evaluated collection of ideas
- Rough concepts with implementation plan


Methodology & Technologies


- Coordination with stakeholders
- Design Thinking & Visualization

Scope of Services

- Coordination with stakeholders
- Experts from the konplan network
- Interdisciplinary search for ideas
- Preparation and detailing of rough concepts for workshops

 9 months

 2 employees – konplan
1-2 employees – customer

 Analysis & Idea Generation,
Conception

Customer

 **SBB CFF FFS**

