

Railway Sleepers from Mixed Plastic Wastes **-RAILWASTE-**

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SUSPRISE Joint Call Evaluation Workshops with project
coordinators – September 23, 2008 – PTJ/Berlin



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Project Partners



- **Materials Sorting and Recycling Company:**
PAV GmbH & Co. KG
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- **Materials Development and Environmental Engineering R&D:**
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- **Specialized Machine Building Company for Waste Processing/Extrusion:**
Next Generation Recyclingmaschinen GmbH
Gerold Barth
Gewerbepark 22
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- **Funding Agency:** PTJ Berlin Office, Dr, Jacobi

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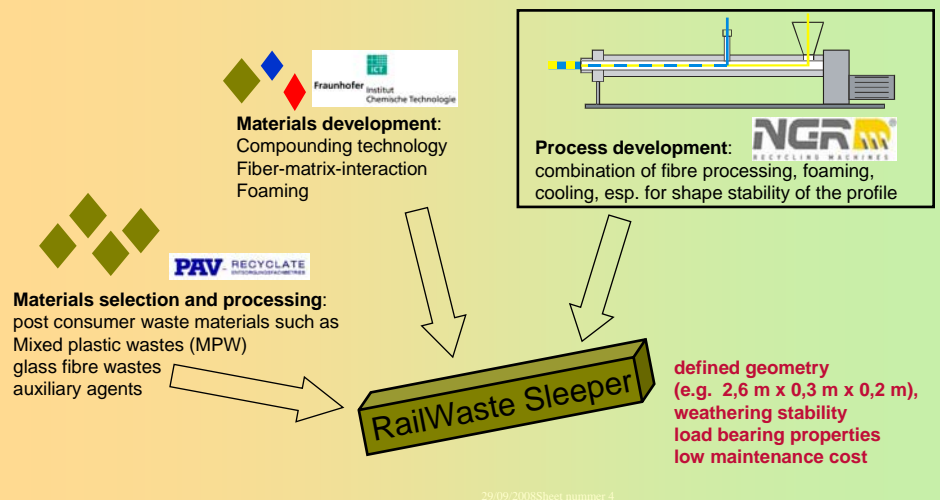
objectives

- to prove feasibility of railway cross ties (sleepers) production from mixed plastics post consumer waste
- Characteristics of polymer sleepers:
 - low weight (esp. for points sleepers)
 - damping of noise and vibrations
 - no cracking
 - no biocide requirement
 - long life span
- Sleeper replacement market size in Germany up to 11 mio units (approx. 880.000 t/a)



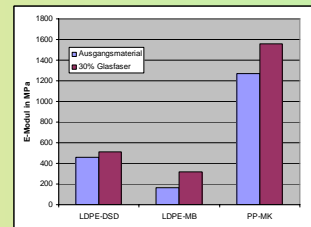
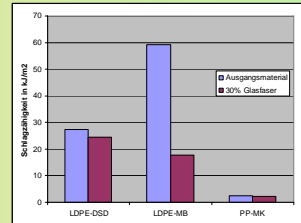
Display of Zehdenick brickworks museum

method / work plan



current project status

- **RailWaste project duration**
1.3.08 - 28.02.10
- **Formal grant agreements available**
21.5.08
- **Kickoff-meeting was held 23.07.08**
- **Cooperation agreement is signed**
12.09.08
- **materials selection and testing started**
- **first technical project meeting on Sept.**
25, 2008



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expected results

- **proof of concept for production of MPW sleepers, and the generation of samples**
- **final materials selection**
- **sorting requirements**
- **compound definition**
- **processing parameters**
- **processing equipment**



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- Mechanical Engineering Doctorate (Stuttgart University)
- Primary Investigator at Fraunhofer-Institute for Chemical Technology (ICT, Pfinztal near Karlsruhe/Germany) since 1994
- Director of the Fraunhofer Center for Energy and Environment (Pittsburgh/Pennsylvania) 1999-2000
- Deputy head of the Environmental Engineering Department of Fraunhofer ICT since 2006
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