

# Silica

**Tom Benner** 

Growth through innovation for sustainable mobility





### Solvay is the leader in Highly Dispersible Silica (HDS) for tires



#### Highly Dispersible Silica (HDS) delivers value to the tire industry



Enables a 5-7% improvement in efficiency

... growing across a number of applications

In passenger car and light trucks

- Energy-efficient tires
- Winter tires
- Sport tires

In heavy trucks

 Commercial emergence of tires using a majority of silica vs. carbon black

#### HDS, a significant enabler of performance, a minor portion of overall tire production cost (<3%)



#### HDS growth drivers: Energy efficiency regulation on auto original equipment



Source: Roland Berger



#### HDS growth drivers: Labeling regulation significantly impacts the tire aftermarket

Tire labeling scope

Countries <sup>[1]</sup>	Japan	Korea	EU	Brazil	US	China
Rolling Resistance	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	<b>√</b>	$\checkmark$
Wet grip	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Wear					$\checkmark$	
Implementation	2012	2012	2012	2014	Draft legislation	Under review













[1] Australia, New Zealand, Israel also adopting an EU style labeling scheme by 2016



#### Performance and regulatory drivers result in strong growth for HDS





Contribution to overall growth

\* Includes Russia



Source: Roland Berger, Solvay estimates

#### **Capacity investments to meet market growth opportunities**





#### **Delivering value from innovation**

## ZEOSIL" PREMIUM

- Better rolling resistance
- Improved wear
- Better dynamic properties

#### **New generation HDS for performance**

- Improved label
- Lighter or longer life tire
- Increase sport handling for UHP tires

#### Z E S I L<sup>o</sup> 1085 GR Specifically engineered for performance in winter and Nordic conditions



efficium<sup>®</sup> Breakthrough silica coming in 2014, increasing productivity for HDS tire manufacturing

- Cuts processing gap for tire makers vs. carbon black by 40-60% in passenger car, and 60-80% in truck formulations
- Enhanced productivity, combined with tire performance gains, leads to a significant adoption potential.





#### A successful growth strategy

- Double digit growth in line with the HDS market, driven by energy-efficient tire demand
- Maintain leadership in HDS for tires, through capacity increases & innovation
- Long-term contracts at pricing supporting appropriate return on investments



