Von der Stadt der Zukunft zu konkreten Wachstumsfeldern in der Chemie –
Corporate Foresight @ Evonik

VCW Konferenz
"Von Megatrends zu strategischen Wachstumsfeldern"

28. Februar 2013
Industriepark Höchst
Dr. Bernhard Schleich
Evonik is structured in a modern way

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<th>Business Units</th>
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<td>Resource Efficiency</td>
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<td>Consumer Specialties</td>
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Our focus: Geared to megatrends

Megatrend = a significant, far-reaching, and sustained trend.

Megatrends:
- are long-term
- are all-encompassing
- send out signals in many areas of life
- are generally global in scope

Significant global megatrends for Evonik:
- Health, Nutrition
- Resource efficiency
- Globalization
In a constantly changing world, one needs to be prepared.

Corporate Foresight

• includes methods, processes, and instruments to recognize and interpret environmental changes and

• enables to prepare for them
What exactly is Corporate Foresight and how does it work?
There are three characteristics about Corporate Foresight to be stressed

**Long-Term Perspective:**
10 – 15 years ahead

**360 Degree View:**
scanning the complete business environment

**Unique Methods:**
Scenario technique and innovative workshop tools
Evonik Track Record of Future Activities

1996
Dedicated Team for Screening Out-of-Portfolio Opportunities

1998
Foundation of Creavis Technologies & Innovation

1998 – 2004
Innovation Monitoring

2009/2010
Foresight Project „Daedalus“

2010

2011
Creavis Foresight Core Team Established

2015
E-Mobility

Example
Membranes

Separion

Lithium-Ion Technology
The Innovation Foresight Process is supported by all Business Units

Steering Committee
Chair: P. Wohlhauser (Member of the Executive Board)

Evonik Foresight Team

Support by external experts

Foresight Core Team
Interdisciplinary team of 5 full-time foresighters

Representatives of all six business units

Process Techn. & Engineering

Innovation Management
Corporate Foresight at Evonik supports medium- and long-term oriented innovation and strategy processes.

Corporate Foresight @ Evonik

Innovation Foresight

Identifying new business potential for Evonik

Strategic Foresight

Preparing for future challenges
Corporate Foresight at Evonik:
Strategic Foresight

Corporate Foresight @ Evonik

Innovation Foresight
Identifying new business potential for Evonik

Strategic Foresight
Preparing for future challenges
Challenge current strategies and support the design of new strategies by conducting **scenario processes** for central / business units

**The scenario technique allows**

- to picture plausible futures in a constantly changing environment,
- to systematically anticipate future chances and risks at an early stage and
- to adapt to changes in time and to shape future developments.
Corporate Foresight at Evonik: Innovation Foresight

Corporate Foresight @ Evonik

Innovation Foresight

Identifying new business potential for Evonik

Strategic Foresight

Preparing for future challenges
Megacities – The “focus theme” of the Process in 2011/2012

Why a focus theme?
• There is no way of dealing with everything every year – it is essential to focus.

Why megacities?
• Megacities are the hotspots of economic growth.
• They reveal the future problems of mankind concentrated in a confined area.
• Urbanization is a major global megatrend: Since the millennium, more than half of the population lives in urban areas; in 2050 it will be 70%.
• The number of urban agglomerations will rise from today’s 19 to 29 in 2025. 1950 it was only 1.
Trend Focus Megacities
Examples for identified Growth Fields

Trend Focus 2011/2012
Megacities

Global Urbanization Trend:
Megacities on the rise

Huge Challenges:
Food, Health, Housing,
Energy, Infrastructure,
Mobility

New Growth Fields for Evonik

- Potable Water
- Advanced Food Ingredients
- Thermal Management
- Urban Technologies
Megacities and business opportunities
Trends within Building & Living

- Smartness
- Noise reduction
- Energy saving
- Comfort & Quality
- Water purification
- Social gathering
- Safety
- Healthy environment
- Green image
- Transportation
- Insulation
- Easy to install
- Working speed
- Durability
- Sustainability

Trends in living

Trends in building
A city quarter of the future…

… comes with self-sustaining energy management

… positively influences the health of the residents

… is an effective protection against the environment

… combines living and working

… provides self-contained facility management

… is perfectly linked to the city’s transportation system
Calculation model for megacities in 2025

- World population ≈ 7,892 M
- Population in MC ≈ 15 M inhabitants
- Megacities ≈ 29
Calculation model:
Megacities consist of city blocks

[Map showing city blocks with dimensions 120 m x 50 m]
75 city blocks result in one city quarter with 15,000 residents

city quarter
1 km²
Megacities contain 1,000 city quarters with different building heights.
Based on our model we can calculate most building-parts within one city quarter:

- **Number of blocks**: 75 units
- **Number of windows**: 174,400 units
- **Basement area**: 450,000 m²
- **Window surface**: 441,000 m²
- **Traffic zone**: 442,000 m²
- **Total facade area**: 1,600,000 m²
- **Roof area**: 346,320 m²
- **Green area**: 138,000 m²
Thermal insulation

A city quarter and its needs for specialty chemical system solutions
A city quarter and its needs for specialty chemical system solutions
A city quarter and its needs for specialty chemical system solutions

Smart materials for facades
Want to create the Future City?
Let’s make it work!

As a global leader in specialty chemicals, we believe that it is not a question of how things are, but how they could be. Do you think so too? Then be part of our international team. Learn more about the countless opportunities at: evonik.com/careers


Evonik. Power to create.
Thank You!