



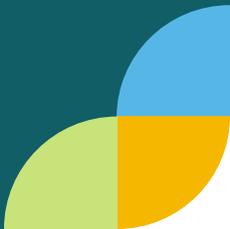
Fibers for Life.



# JRS Company Presentation

WELCOME

Rosenberg-Holzmühle – October 27, 2023



# At a Glance – the JRS Company Group

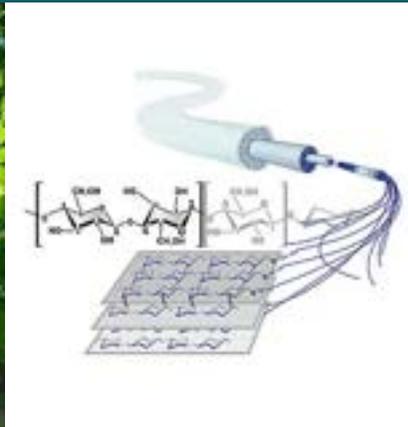
- › **145 Years** of Experience and Special Know-how.
- › Worldwide active, **Owner-managed Family Business** Group with dynamic growth and a sustainable approach.
- › Global Network Structures – more than **4000 Employees**, more than **90 Production and Sales Locations** worldwide.
- › An **Attractive Employer** in the region – and around the globe.

**Manufacturer,  
Solution Provider,  
System and  
Technology Partner**



JRS – Fibers for Life.

# The Innovative JRS Plant Fiber Technology



For a Better  
Tomorrow –  
with Every Fiber

# Overview JRS Plant Fiber Technology

## › Plant Based Raw Material

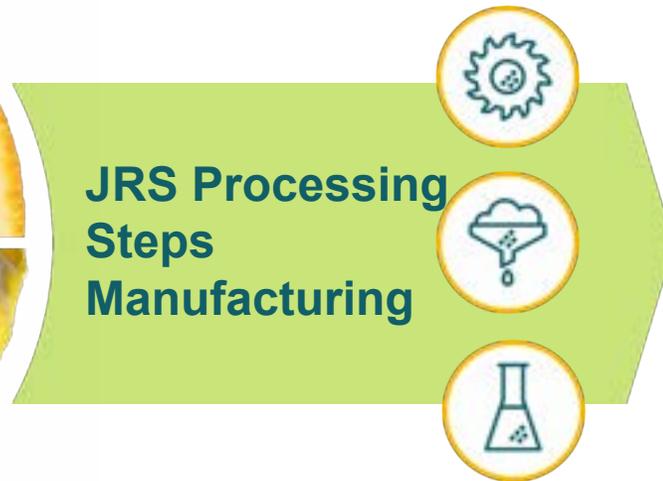
## › JRS Processing

## › JRS Products

## › Applications



Wood | One Year Plants  
 Fruit Peels | Seaweed  
 Cellulose Pulp | Recycled Cellulose



Mechanical Processes  
 Extraction  
 Chemical Basic Processes



Fibers | Powders  
 Fiber Compounds | Pellets & Granules  
 Hydrocolloids



Life Science  
 Technical Applications  
 Consumer FMCG

# FUNCTIONALITY – Created by Nature in Renewable Plant Raw Material



Film formation  
 Stabiliser  
 Thixotropizing  
 Pressing aid  
 Green strength  
 Dietary Fibers  
 Drying  
 Disintegration  
 Excipients  
 Gelling  
 Abrasion  
 Coatings  
 Pigmentation  
 Spacer  
 Absorption  
 Filling  
 Dispersing  
 Binding  
 Asbestos substitute  
**Thickener**  
**Anticaking**  
 Drainage  
 Strengthening  
 Surface degreasing  
 Flowability  
 Extrusion  
 Moisture Control  
 Separation  
 Matting  
 Drying  
 Diatomaceous earth substitute  
 Granulation



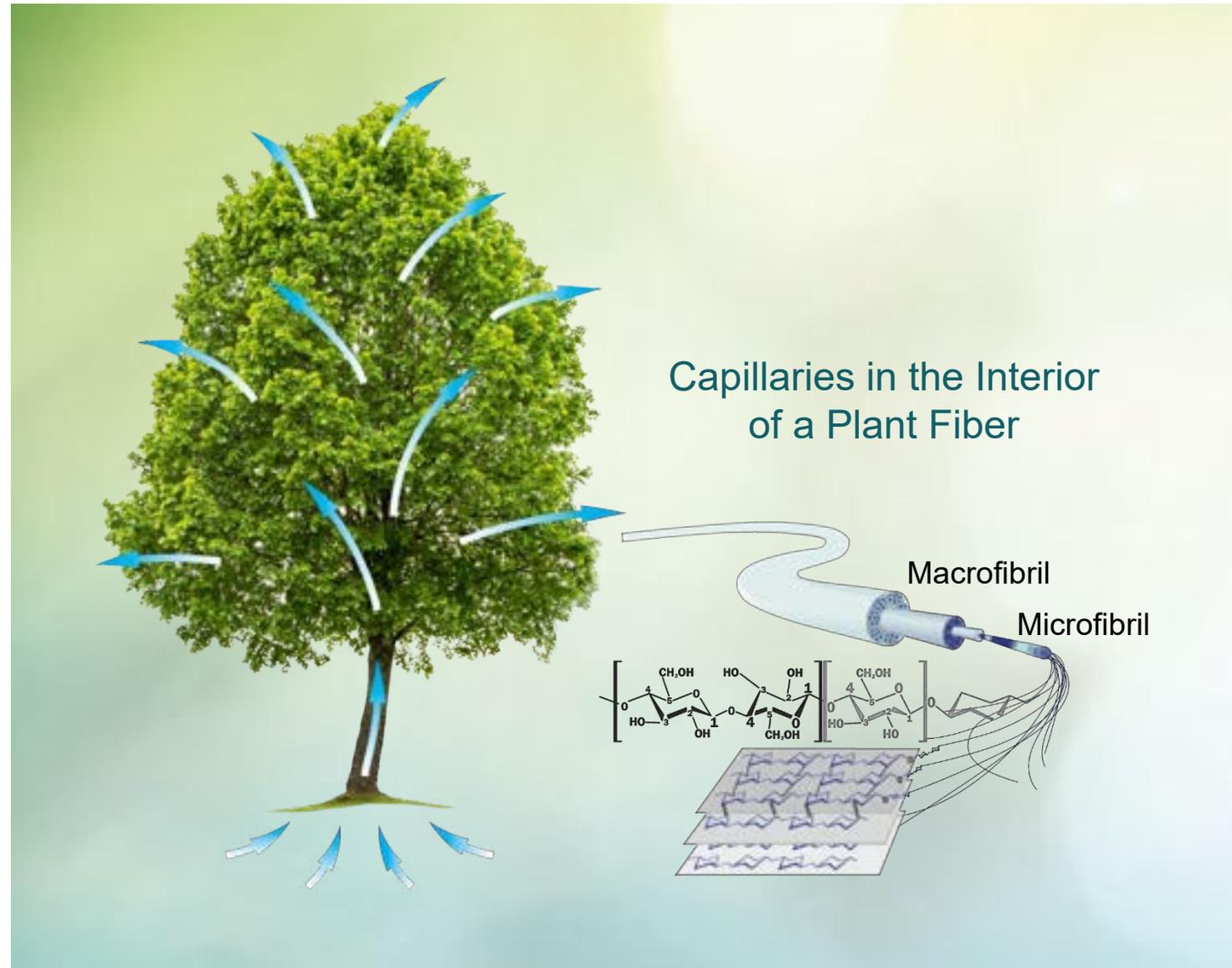
# JRS Transforms the Functionalities of Renewable Organic Raw Material into Industrially Usable Functional Additives and Semi-finished Products



# Nature Serves as a Model

## Example of FUNCTIONALITY of Plant Material:

- › **Water transportation** in a tree.
- › Derivation for industry: e.g. humidity management in production processes.



Ecological – Natural – Sustainable

# Renewable Plant Raw Material



# With a Clear Conscience for a Better Future

Our Fiber Products are created  
from natural, renewable plant  
based raw materials, such as

- › Cereal, fruit and vegetable plants
- › Seaweed
- › Many types of wood
- › Raw celluloses



# Sustainable Resource Management

## Resource-saving, Sustainable Bio-Economy:

- › Raw materials of renewable plant origin.
- › Partial use of secondary raw materials from production by-products.
- › Waste-free use of raw materials.
- › Part of energy production from biomass and water power.  
Ambitious, sustainable energy policy.



JRS Engineering Made in Germany

# Innovative Premium Manufacturer and Solution Provider



# Innovative & Functional **JRS Plant Fiber Technology**

## Our Product Portfolio:

- › Sustainable Plant Fibers
- › Functional Additives
- › Excipients & Coatings  
for Pharmaceutical Industries
- › Dietary Fibers in Food
- › Ecological Petcare Products
- › Sustainable Energy Sources



**Products for  
All Areas of  
Modern Life**

# Unique JRS Plant Fiber Production Technology

- › **JRS Process Engineering and Mechanical Construction** ensures unique, innovative product and application implementations.
- › **JRS Engineering Made in Germany** guarantees worldwide highest production, quality, efficiency and sustainability standards.



**Market leadership and  
technology advantage  
thanks to own plant and  
process development**

Since 145 Years

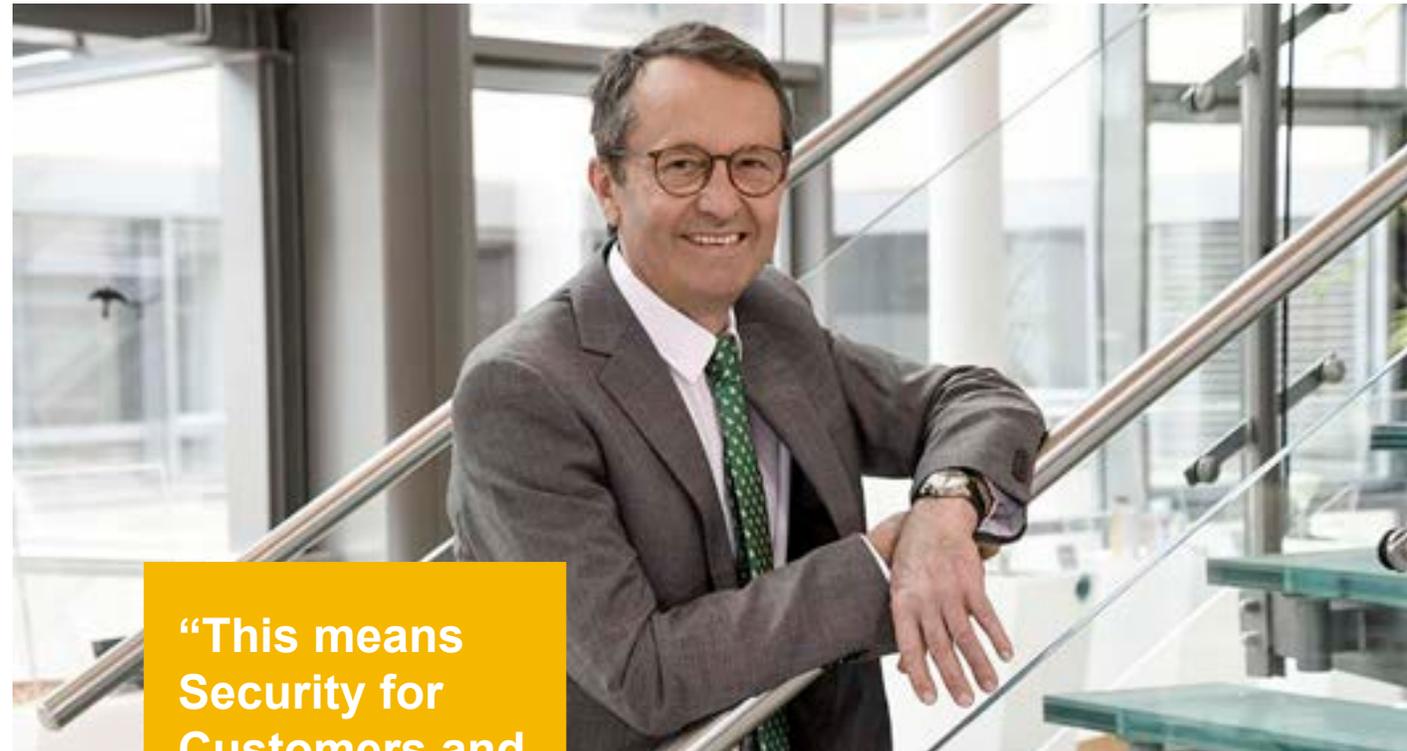
# An Independent Family Business with Dynamics, Perspective and Stability



# Long-term Perspective, Security and Reliability

## The Owner-led JRS Family Company Group

In our **Autonomy and Independence** we see the basis for a **Long-term, Future-oriented**, sustainable entrepreneurial capacity to act with maximum innovative power.



“This means  
Security for  
Customers and  
Employees”

Josef Otto Rettenmaier (CEO JRS)

Health, Nutrition, Resources

# JRS Sets the Tone for Global Problem Solutions



# For a Better Tomorrow – with Every Fiber

In times of a growing world population, we see ourselves as **Pioneers for a Modern, Livable World** that offers all people access to healthier nutrition, globally available medicine and resource-conserving, environmentally friendly industrial production.



**Our Sustainable Guiding Principle:**  
 With our work, we want to contribute to making our (surrounding) world a little bit better every day

# The 'Green Concept' of JRS

- › JRS products inherently follow the idea of the **Natural Material Cycle.**

## Renewable Plant Raw Materials – Biodegradable:

- › 'Green' Products,
- › 'Green' Technology,
- › 'Green' Functionality.

- › '**Green**' Energy Contribution via **Hydropower** and **Biomass** power/heat plants.



# Our Roots Commit us to 'Green Thinking'

JRS has lived this 'Green' Philosophy since its foundation 145 years ago as a classic oil and grain mill that processed valuable plant raw materials.



Holzmühle in about 1880

**Ecological and  
Economical Sustainability  
are always in Harmony  
for JRS.**

# Sustainable Functionality of the 'Green' JRS Products



- › Environmental protection
- › Energy and material saving
- › Exchange of hazardous substances and chemicals
- › Recycling / circulation
- › Waste reduction
- › Health occupational safety

# Application Examples of 'Green' JRS Technology

## Plant based Raw Materials Instead of Microplastics:

- › Natural **Substitute** for **Plastic Microspheres** in **Cosmetics**.

### Added Value

JRS cellulose products also offer additional functional properties.



# Application Examples of 'Green' JRS Technology

- › **Raw Fiber Concentrates** promote growth efficiency through better food utilization, help curb antibiotic use, reduce manure/slurry.



## Agricultural Animal Nutrition

## Plant Cultivation



- › **Seed Pelleting** to provide seeds with everything needed for efficient, rapid germination/growth.
- › **Growing Aids** in areas with soil problems due to climate change, support in climate improvement through city greening, etc.

# Application Examples of 'Green' JRS Technology



**Modern Food** for Better **World Nutrition**.

- › Tasty, Healthy **Dietary Fiber Concentrates** – use e.g. calorie / energy / fat reduction, metabolism support.
- › Structure and volume for **Vegan / Vegetarian Food**, (e.g. meat/fish substitutes).

- › Plant Fiber Technology in **Packaging**, disposable, consumer plastics.
- › Innovative, **Recyclable Materials** in automotive and modern living environments.
- › **Substitutes** for **Petroleum-based** chemical products.

**More Sustainable Materials:** Replace plastic packaging/disposable products or make them 'Greener'.



Holistic Problem Solver

# Competent Technology and System Partner for Modern Industries



# System and Technology Partner for Innovation Projects

- › 7 R&D and Application Centers worldwide
- › Application Consulting
- › Pilot Plants / Technical Centers
- › Production Implementation
- › Dosing / Conveying Technology
- › Certification / Documentation



**JRS supports innovation projects in all fields of application – in close cooperation with customers**



# Person to Person

Personal Partnership in Customer Relationships with Heart and Commitment



# People are at the Center of the JRS Family

## As a Customer *and* an Employee!

- › Fair, respectful interaction at eye level – across all cultures, countries, religions.
- › Perceiving and valuing all people as individuals.
- › Providing benefits, supporting, making a difference together, being authentic.



The JRS Family Includes Employees and Customers together

The JRS Group Worldwide

# Global Production and Service Network Concept



# The Global JRS Network Concept

## Security, Proximity, Reliability:

Strategically placed production sites in Europe, America, Asia for short distances and reliable, fail-safe availability.

- › More than **4000 Employees** at over **90 Production and Sales Locations** and a high level of **Regional Competence** ensure direct contact all over the world – with qualified advice and perfect services.



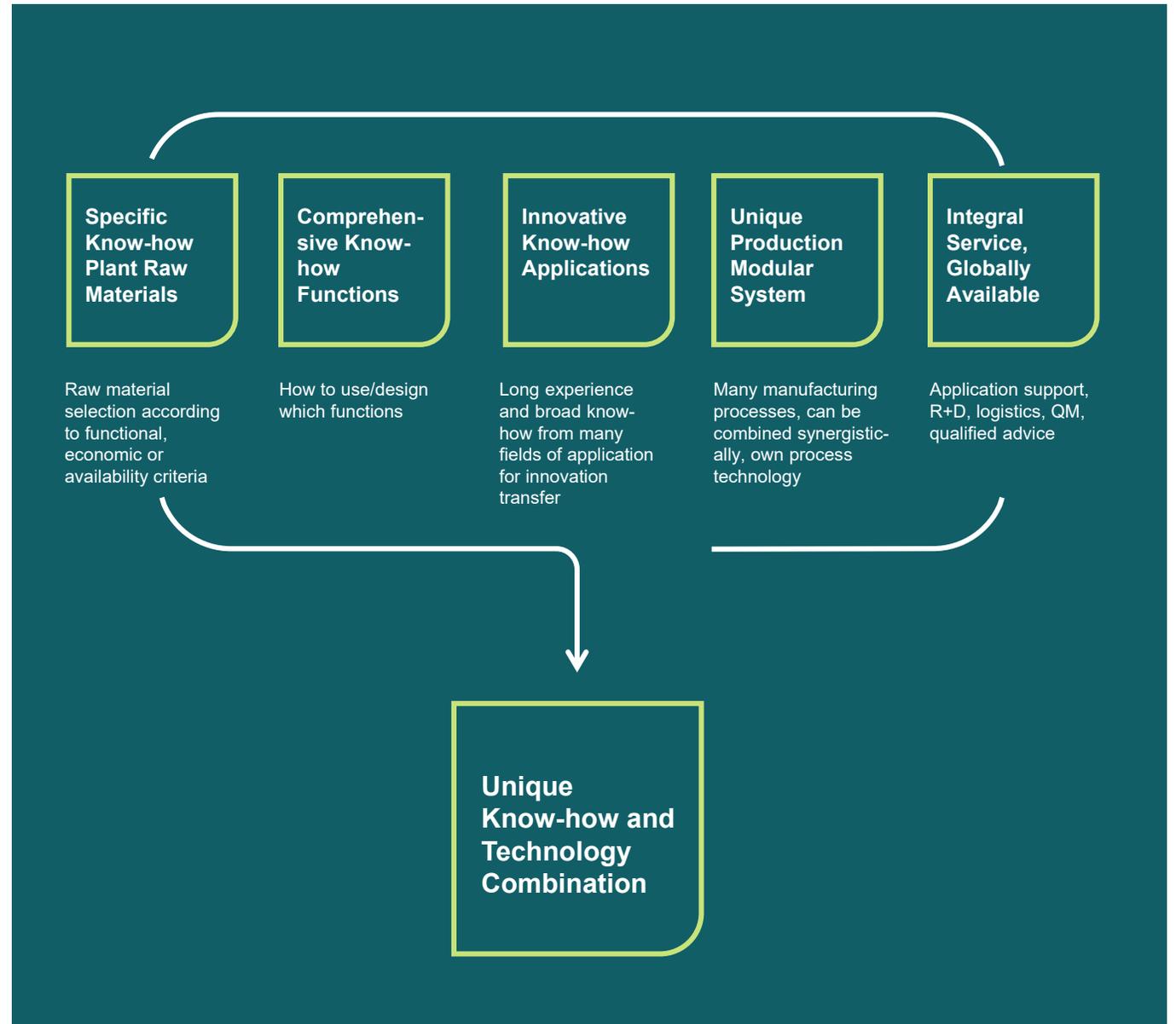
**For continuous availability  
and perfect service**

# Worldwide *Unique* Know-how and Technology Combination

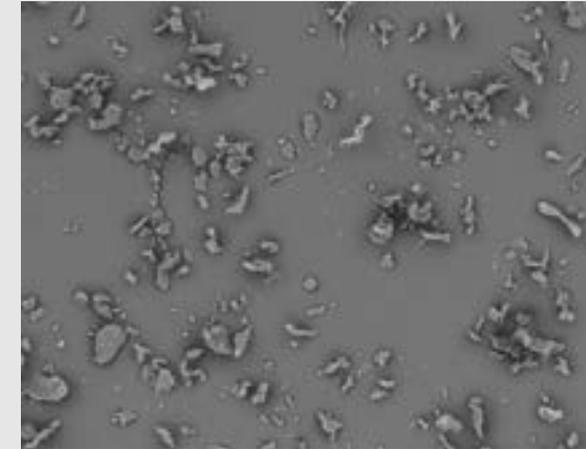
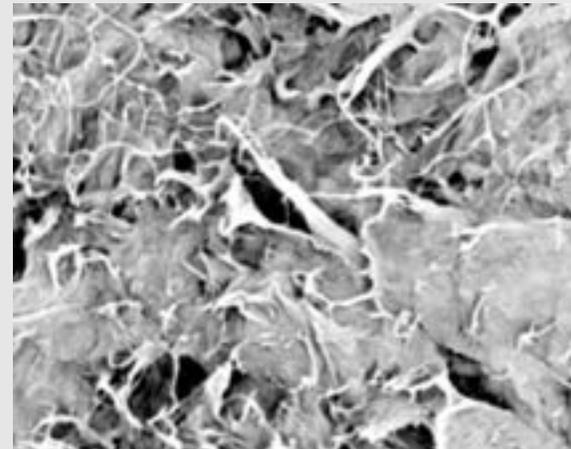
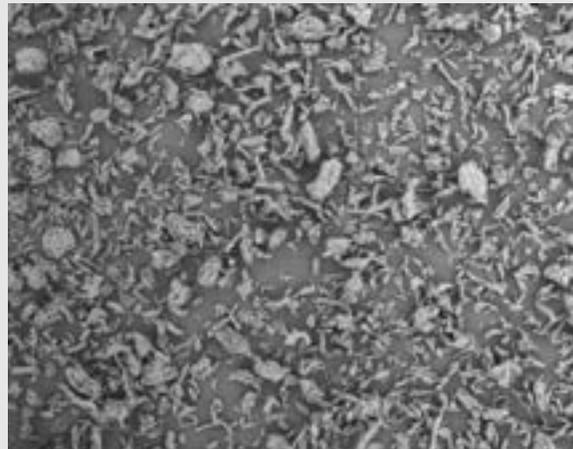
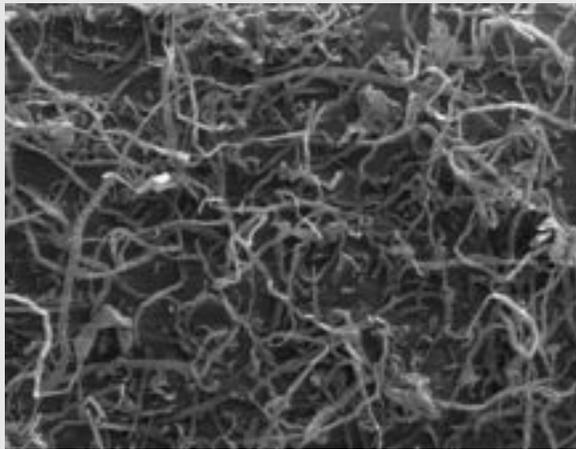


# The Unique, Special JRS Toolbox System

- › Plant Raw Material Knowledge
- › Functional Know-how
- › Innovative Application Expertise
- › Modular System of JRS Process Technology
- › Holistic Service, Globally Available



# Functional Competence



Examples of Different JRS Products under the Microscope

**Different Particle Structures lead to Specific Functions !**

# Specialization of the JRS Core Fields

## Life Science

JRS PHARMA BU Excipients  
JRS PHARMA BU Coatings  
JRS Medic  
BU Food Ingredients  
BU Petfood  
BU Home & Personal Care

## Fiber Solutions

BU Filtration  
BU Chemistry  
BU Industries  
BU Technics  
BU Livestock  
BU Functional Asphalt Additives  
BU Innovations & Contract Manufacturing

## Consumer Products

JRS PETCARE

# Career & Training at JRS

Sustainable, Value-oriented,  
Fit for the Future.

JRS – a Company with a Future:

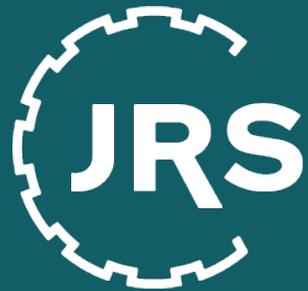
- › The innovative 'Green' future-oriented JRS Plant Fiber Technology and a committed corporate concept contribute to making tomorrow's world a better place today.
- › With sustainable, **future-oriented**, modern **workplaces**.



*We are the future!  
An Attractive Employer  
in the Region – and Around  
the Globe*



**Thank You for YOUR Interest!**



**Fibers for Life.**