

The Clariant Portfolio Value Program System:

How a Leading Specialty Chemical Company has
Developed a Systematic Approach for Improving
the Sustainability Performance of its Products

June 17, 2016



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GC3

The logo features the letters 'GC3' in a bold, dark blue font. A green leaf icon is positioned inside the number '3'. The logo is set against a background of two horizontal bars: a top bar in olive green and a bottom bar in dark blue.

What is the GC3?

- Cross-sectoral, B2B network of 99 companies and other organizations
- Formed in 2005
- Collaboratively advances green chemistry across sectors and supply chains



Today's Speakers

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Clariant International Ltd

Ground Rules

- Due to the number of participants in the webinar, all lines will be muted
- If you have a question or comment, please type in the Q&A box located in the drop-down control panel at the top of the screen
- Questions will be answered at the end of the presentation

The Clariant Portfolio Value Program

**A SYSTEMATIC APPROACH
FOR IMPROVING THE
SUSTAINABILITY
PERFORMANCE OF THE
CLARIANT PRODUCT
PORTFOLIO**

Lynette Chung
Corporate Sustainability & Regulatory
Affairs
Strategic Issues
17.06.2015

what is precious to you?

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Sustainability@Clariant

COMPANY INTRODUCTION AND SUSTAINABILITY VISION

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what is precious to you?

A globally leading company in specialty chemicals



Historical milestones

Clariant has come a long way – now we are going beyond what has already been achieved



Four Business Areas

THE RIGHT PORTFOLIO FOR FUTURE GROWTH

SALES BY BUSINESS AREA

in CHF m, total 2014: 6 116

CARE
CHEMICALS

1 511



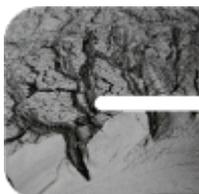
CATALYSIS &
ENERGY

729



NATURAL
RESOURCES

1 297



PLASTICS &
COATINGS

2 579



CLARIANT'S FOCUSED PORTFOLIO

After the successfully executed portfolio optimization in the 2014 reporting year,

Clariant possesses a focused portfolio that distinguishes itself by:

- an above-average growth rate
- promising future prospects
- high profitability with upside potential

SALES BY REGION

in CHF m, total 2014: 6 116

NORTH AMERICA

1 006

EUROPE

2 232

ASIA/PACIFIC

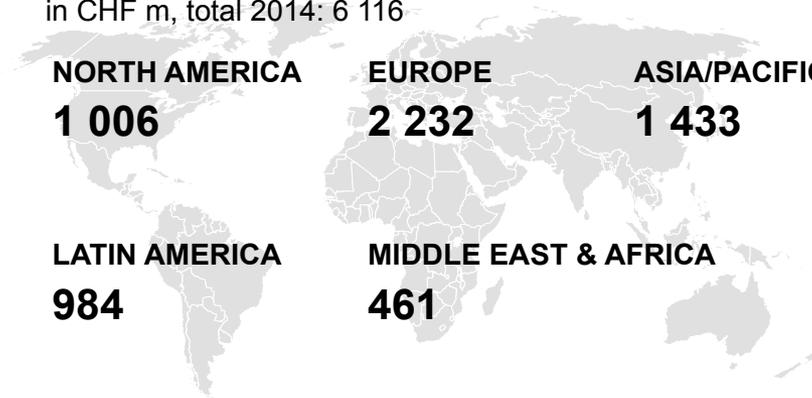
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LATIN AMERICA

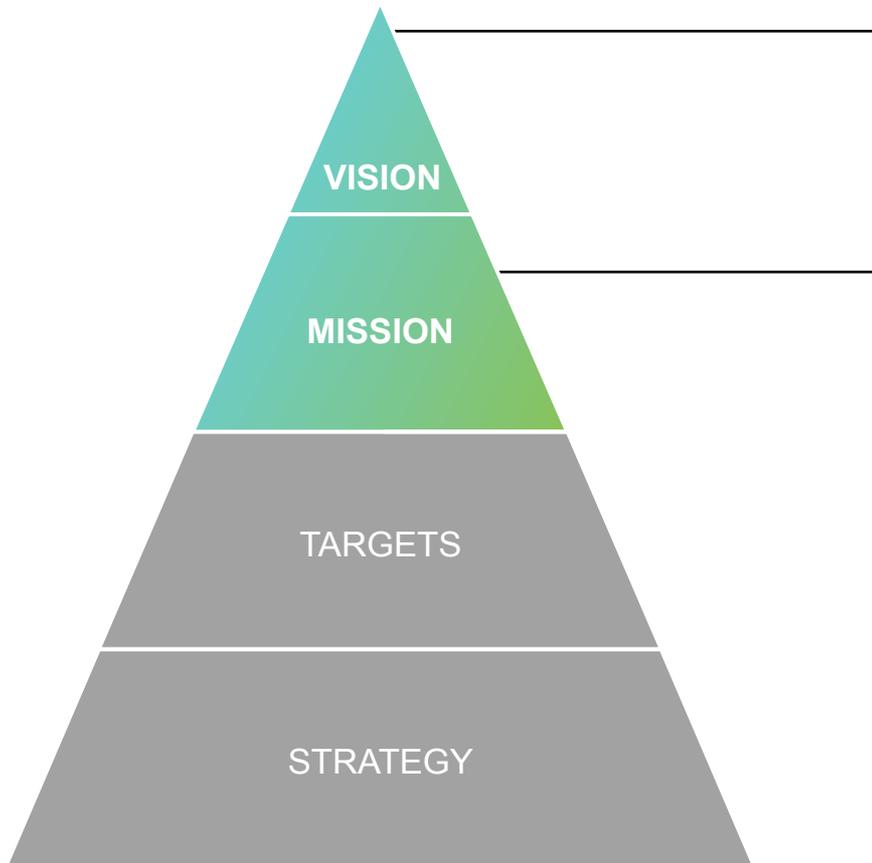
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MIDDLE EAST & AFRICA

461



The Goal of a Long Journey: **CLARIANT AS THE GLOBAL LEADING COMPANY FOR SPECIALTY CHEMICALS**



We aim to be the globally leading company for specialty chemicals and to stand out for above-average value creation for all of our stakeholders

We create value through appreciation of the needs

- of our **customers** by providing competitive and innovative solutions
- of our **employees** by adhering to our corporate values
- of our **shareholders** by achieving above-average returns
- of our **environment** by acting sustainably

Sustainability is anchored in Clariant's strategy and values

Sustainability is a pillar of our corporate strategy and an important driver of the company's profitable growth strategy. Sustainability fuels Clariant's innovation pipeline and creates value for all stakeholders.

5 PILLARS STRATEGY



Sustainability is a key success factor and an integral part of Clariant's business strategy

Why we adopt sustainability as integral part of the corporate strategy:



Position the company in the sustainable market



Build a competitive advantage through differentiation



Support profitable growth



Create added value for stakeholders



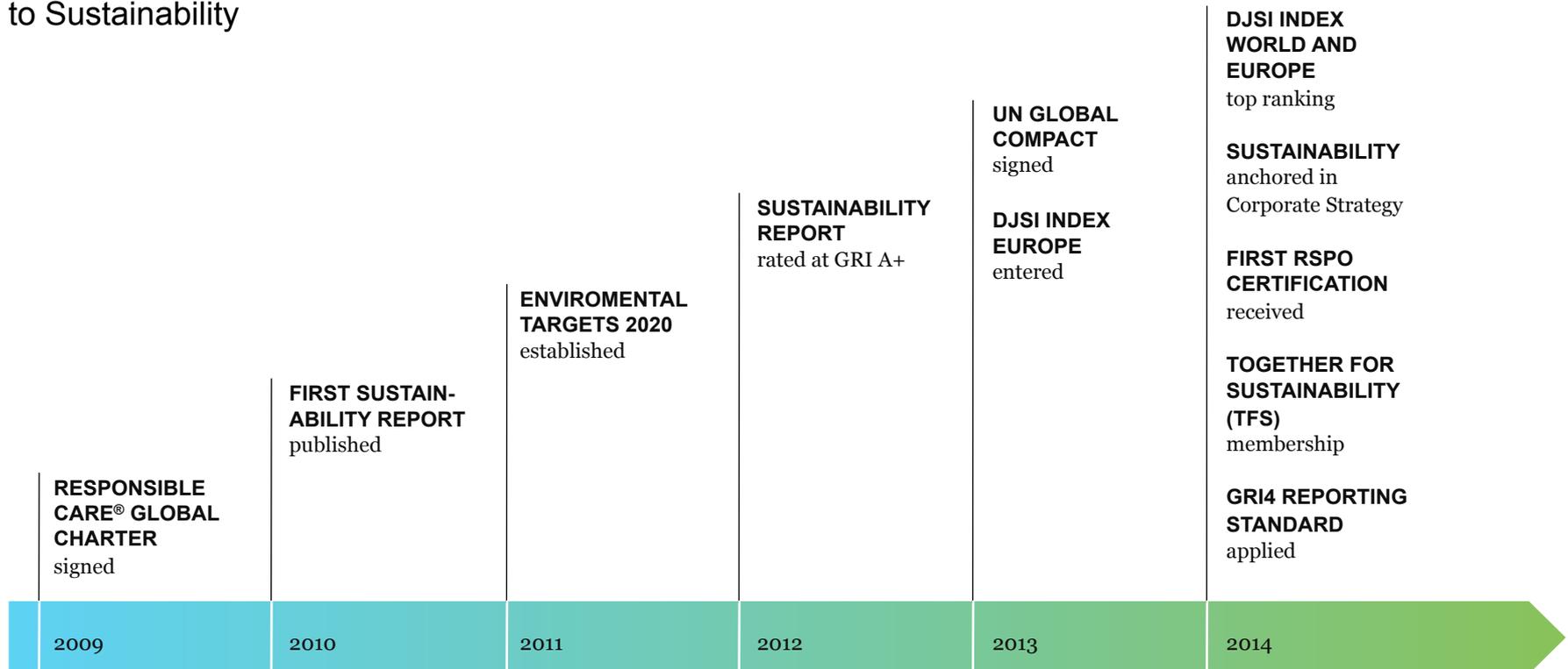
Build brand image and reputation



Anticipate and mitigate risk

Clariant's sustainability performance is noteworthy and well recognized

MILESTONES OF CLARIANT'S COMMITMENT to Sustainability



Clariant is committed to corporate responsibility and supports renowned initiatives



Responsible Care[®]
OUR COMMITMENT TO SUSTAINABILITY



WE SUPPORT

MEMBER OF

**Dow Jones
Sustainability Indices**

In Collaboration with RobecoSAM 

Sustainability@Clariant Portfolio Value Program AN INTRODUCTION TO THE PVP

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Sustainability@Clariant Portfolio Value Program

A flagship program for steering the Clariant product portfolio towards increasing sustainability.



- The world is changing. Sustainability is a must for addressing megatrends, global challenges and opportunities.
- Customers and markets are increasingly aware and sensitive to sustainability. Policy-makers and other stakeholders promote sustainability initiatives.
- Anticipating and understanding where sustainability plays a role in our markets is key. Thereby, sustainability is built in our value proposition, and customer and stakeholder engagement.

Sustainability@Clariant Portfolio Value Program

Key streams – a tailor-made approach

The PVP is developed with the Collaborating Centre for Sustainable Consumption and Production (CSCP), founded by the UNEP and the Wuppertal Institute



Assess comprised understanding the status quo and identifying needs and innovation opportunities through benchmarking of product and portfolio sustainability tools.



Involve aimed at engaging stakeholders and harnessing their diverse input and contributions for a shared vision and deployment of sustainable value creation.



Innovate involved creatively responding to society's current and future trends and demands, as well as further improving existing product and portfolio

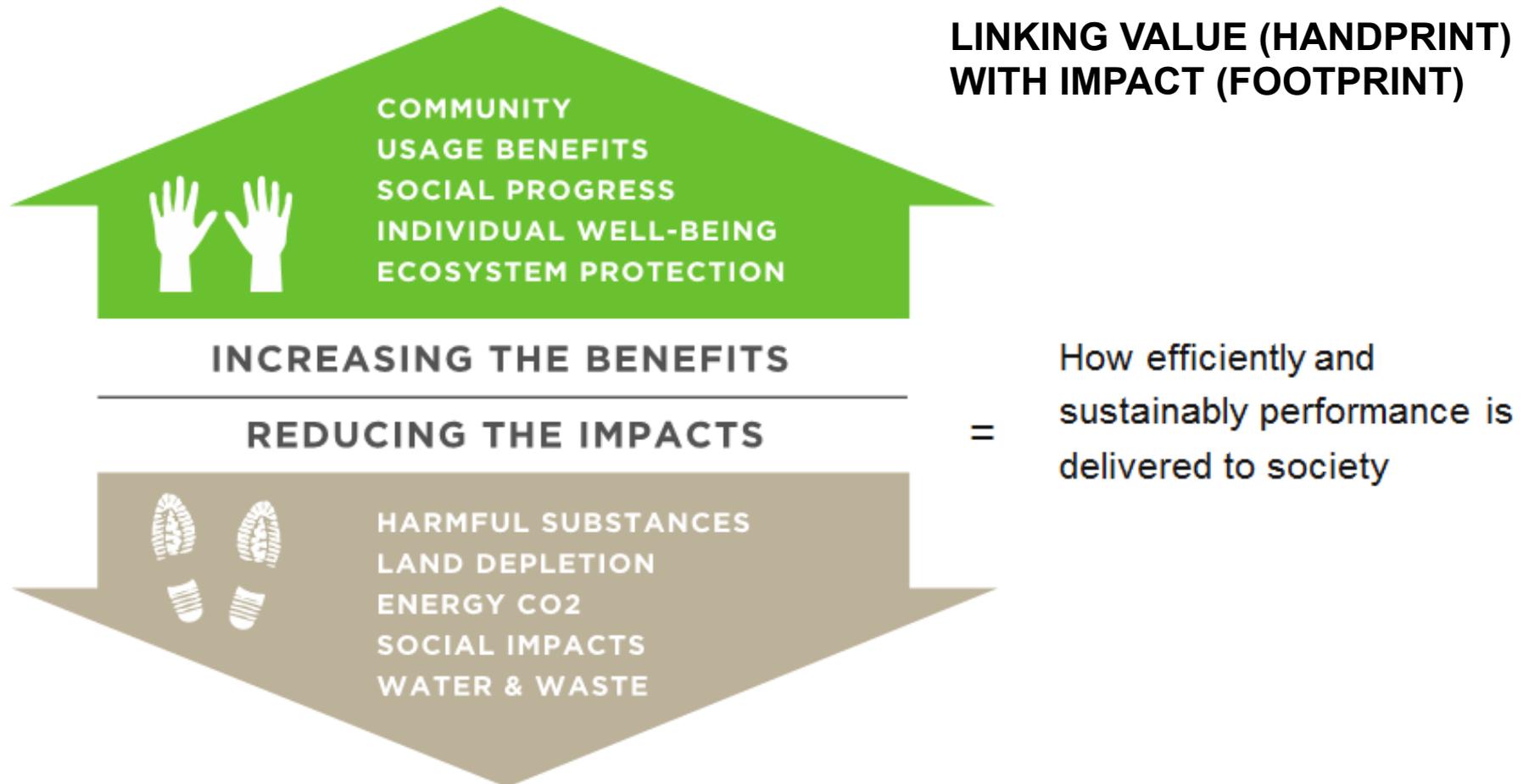
The PVP System

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Creating Sustainable Value at Clariant

Seizing full opportunities throughout product life cycles



Combination of perspectives to assess product sustainability

A TWO SIDED ASSESSMENT USES TWO LENSES TO LOOK AT PRODUCT SUSTAINABILITY



Sustainability Performance against the Market

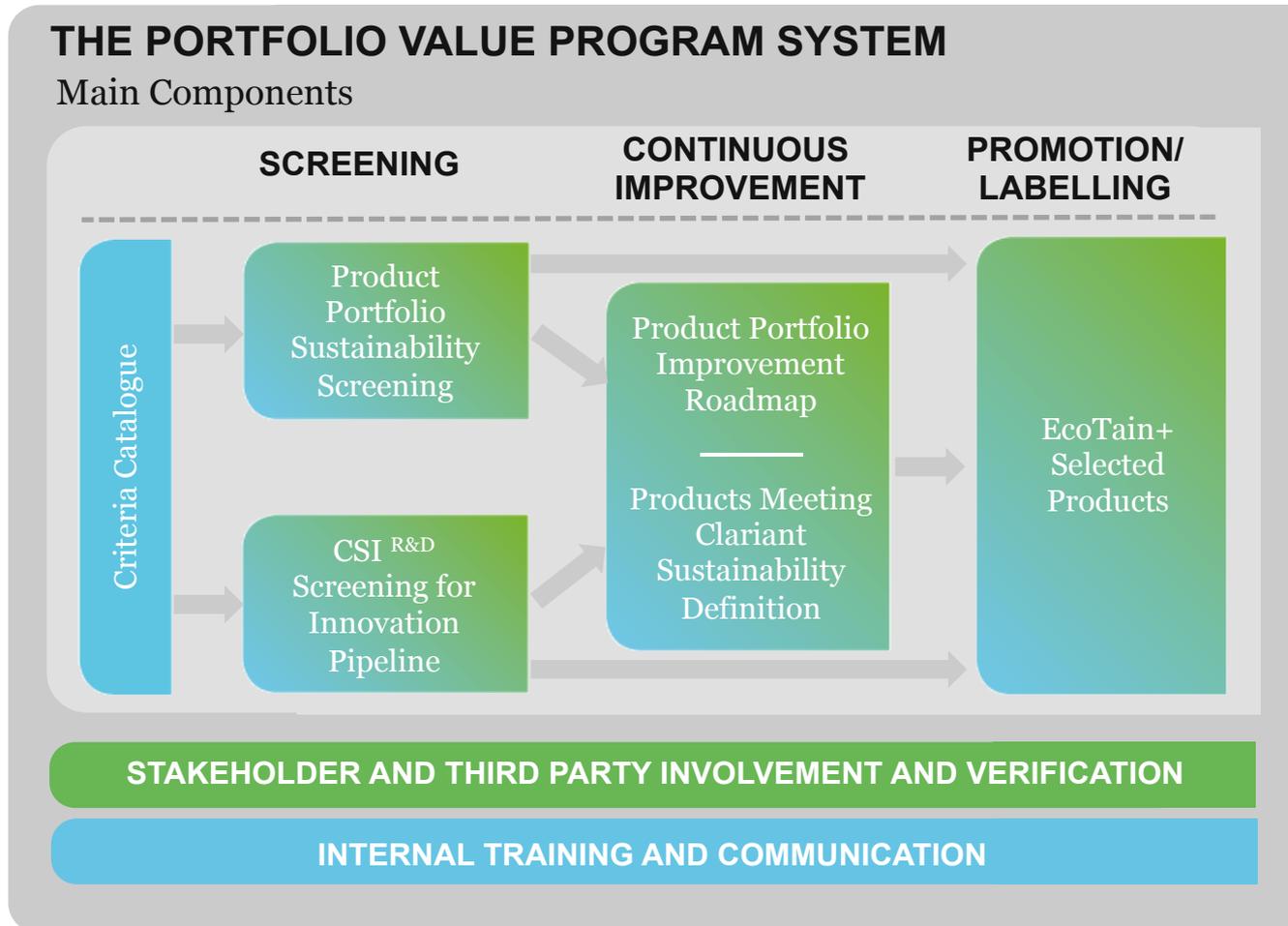
Is the sustainability performance of Clariant's products helping to raise the market standard?

Sustainability Risks & Benefits

(absolute nature of issue)
Assessing direct and indirect added value and impact specific to each criterion.

The PVP System

Scope and components of the system



The 36 criteria used for product screening



RAW MATERIALS AND SUSTAINABLE SOURCING

- Material use efficiency in the production
- Material efficiency in the use phase
- Raw material scarcity
- Use of renewable raw materials
- Use of non-food competing renewable raw materials
- Sustainability certification of renewable raw materials
- Use of recycled material in the production
- Support of recycling opportunities in the value chain
- Impact on biodiversity



ENVIRONMENTAL PROTECTION

- Water Consumption (3):
raw materials/ production/ use phase
- Energy consumption (3):
raw materials/ production/ use phase
- GHG emissions (3)
raw materials/ production/ use phase
- Emissions in the use phase
- Hazardous waste classification in the production
- Hazardous waste classification in the use phase
- Waste generation in the production
- Waste generation in the use phase
- Biodegradability/Compostability of product
- Effect on aquatic environment
- Waste water formation at use phase



Planet

The 36 criteria used for product screening



People



SAFE USE, TRANSPARENCY AND INFORMATION

- SVHC substance profile
- CMR substance profile
- Hazard classification level
- Level of solvents and VOCs in the use phase
- Available information on performance and impacts across the life-cycle



ADDRESSING MEGATRENDS AND SOCIETAL NEEDS

- Solutions meeting societal / environmental needs or megatrends:
 - *Food and Nutrition,*
 - *Health and Safety of People,*
 - *Environmental Issues, Societal Challenges,*
 - *Green and Sustainable Living, and Climate Change*



Performance



INTEGRATED SUSTAINABLE BUSINESS

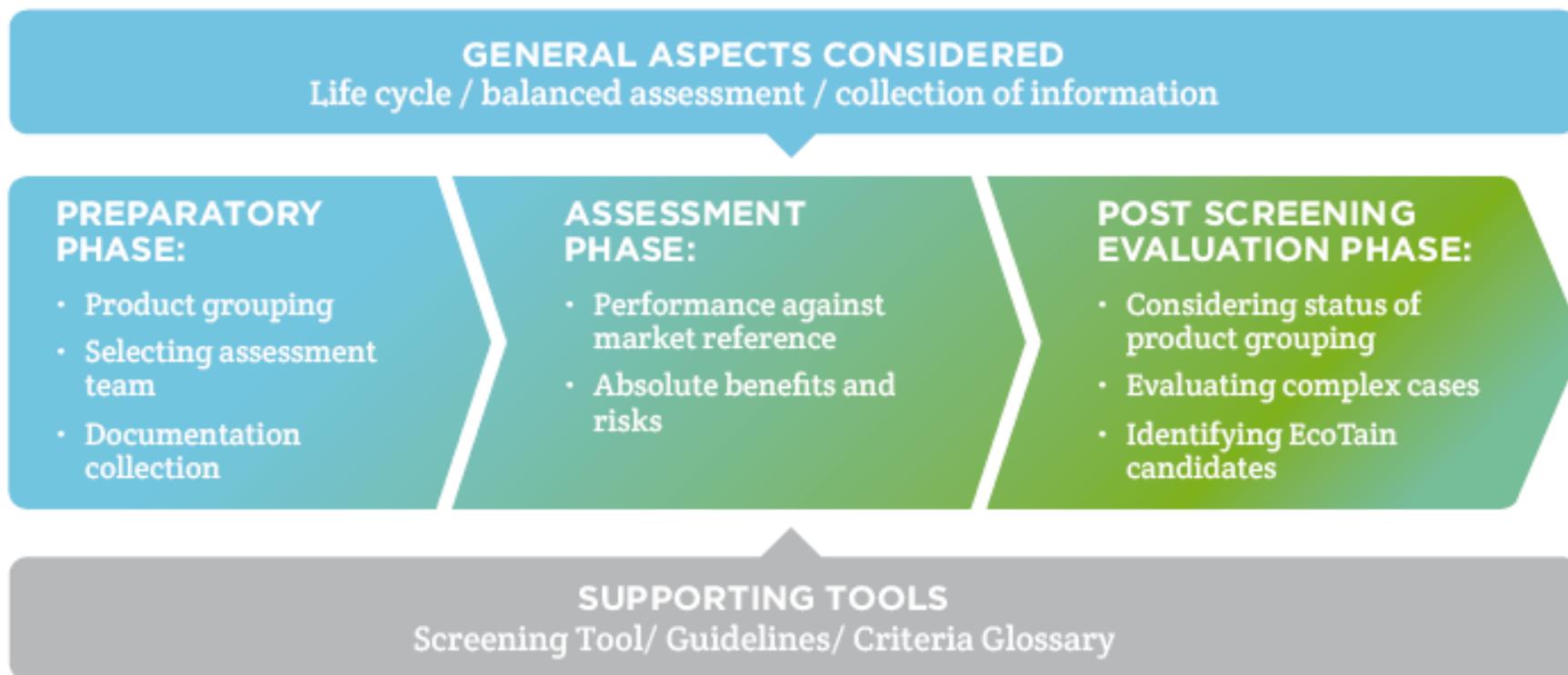
- Value chain collaboration
- Value adding product related services and product service systems



PERFORMANCE ADVANTAGES

- Additional performance features and benefits to the customer
- Third party certification of product

Key components of the portfolio screening process



The standard PVP system screening scale

PERFORMANCE OF PRODUCT GROUPING (relative to market standards)	SUSTAINABILITY BENEFITS AND RISKS OF PRODUCT GROUPING (in relation to the absolute nature of issue)
 Best-in-class performer	Sustainability Benefit 
 Higher than market standard/average	Neutral 
 Average	Medium/potential risk 
 Lower than market standard/average	High risk 
Not applicable	Not applicable
Data insufficient for assessment	Data insufficient for assessment

Example of a screening case – Nipaguard SCE

NIPAGUARD SCE

Product description

This is an antimicrobial agent designed for the preservation of cosmetic products and toiletries. It exhibits microbial activity against a wide range of bacteria, yeast and molds.

Distinctive feature

Nipaguard SCE is a paraben-free solution for personal care products, based on renewable raw materials. Parabens have been under public scrutiny due to potential negative impacts on health associated to their oestrogen-like properties, besides concerns around the negative impacts of certain parabens to the aquatic environment.

Benchmark for market performance assessment

Paraben-based preservatives, as the mainstream market solution, are the benchmark against which Nipaguard SCE is consistently assessed across all criteria in terms of market performance. Although consisting of two different technologies, Nipaguard SCE and parabens have the same market application.



Example of a screening case – key results

Nipaguard SCE

CRITERIA	PERFORMANCE AGAINST THE MARKET BENCHMARK	SUSTAINABILITY RISKS AND BENEFITS
Use of renewable raw materials	 Zero renewable content in benchmark	 85% renewable based
Use of non-food competing renewable raw materials	Not applicable as no renewable content in reference group	 Palm kernel oil content
Sustainability certification of renewable raw materials	Not applicable as no renewable content in reference group	 Palm kernel oil mass balance RSPO certified
Effect on aquatic environment	 Benchmark present chronic aquatic toxicity	 Paraben-free
Third party certification of product	 Benchmark presents no certification	 Ecocert certified
Hazard classification level	 Some benchmark variations under regulation	 Precautionary flag of a classified ingredient
Solutions meeting societal / environmental needs or megatrends:	Not applicable as this criterion is not assessed against the market	 Health protection and green living

Excerpt from screening profile

Experience gained from pilot screenings

Key findings:

- **Tangible**: Creates a common understanding of what sustainability means (across market segments, functional departments, across regions). Increases awareness for sustainability in the whole organization (top down & bottom up).
- **Transparent**: Increases transparency by providing a comprehensive overview on product profile in one single document. Good basis for discussion.
- **Improve & Innovate**: Eases the identification of gaps and/or areas for improvement. This helps to define the action plan (e.g. for missing data) and/or to define the profile for next generation products.

Portfolio management and screening evaluation

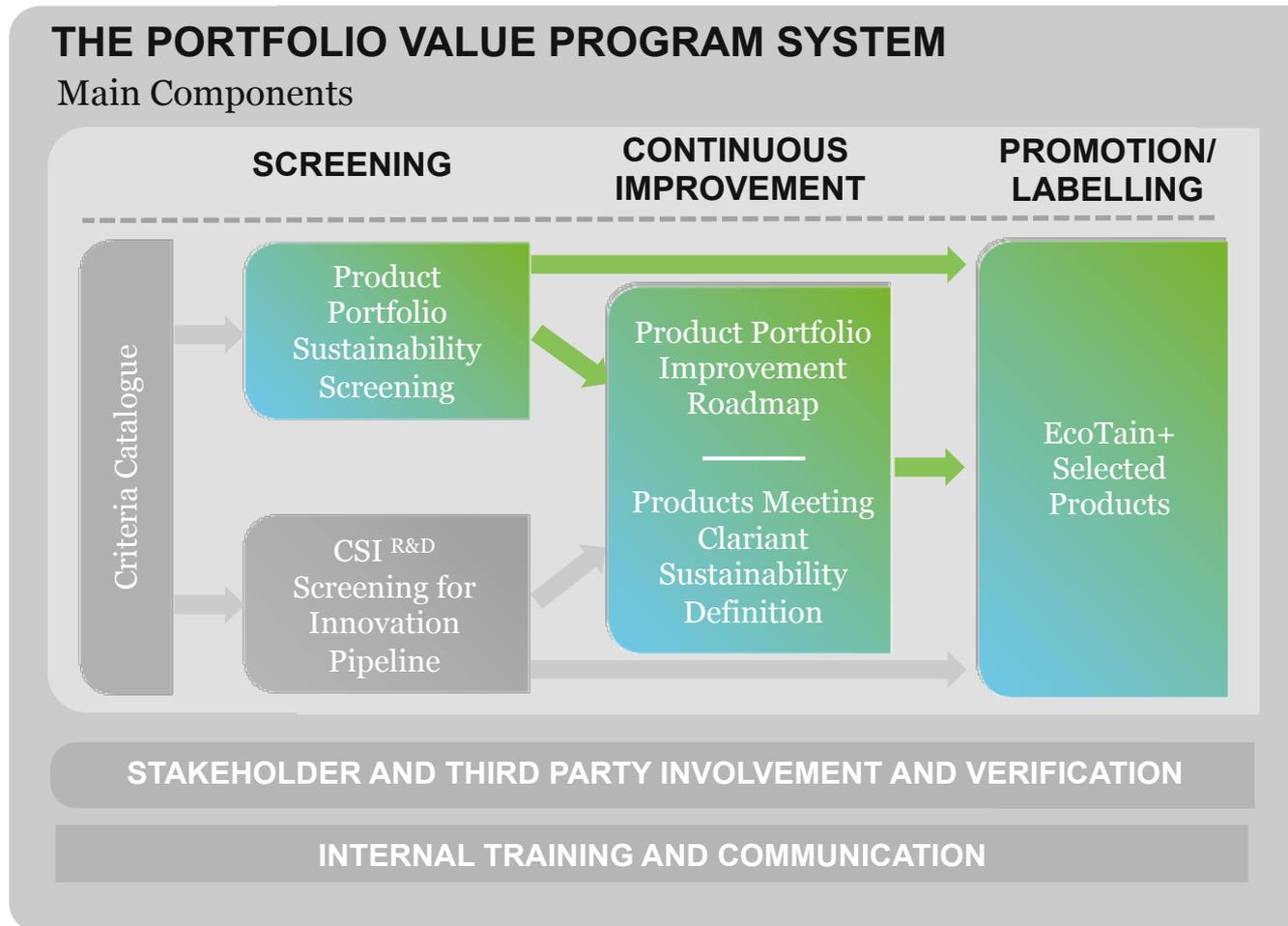
ACTING ON SCREENING RESULTS

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Portfolio Sustainability Screening

Screening outcomes and how they are dealt with



A basis for categorization to support decision-making and enabling different handling

ALLOWING FOR CONSIDERING ACTIONS NORMALLY BASED ON THREE BROAD CATEGORIES:



Products standing out for their sustainability

- Products representing excellence, or best-in-class-solutions, with a positive contribution to the sustainability of the industry.
- Differentiated through the 'EcoTain' Label.

Products meeting a set benchmark by the organisation or externally

- Products representing a standard considered an acceptable level of sustainability.
- Comparison against a set of requirements based on at least reaching market standards, providing some benefits and justifications, where relevant, for any risks.
- Not a static benchmark, but a continuously reviewed standard reflected by the periodical update of the criteria assessment scale.

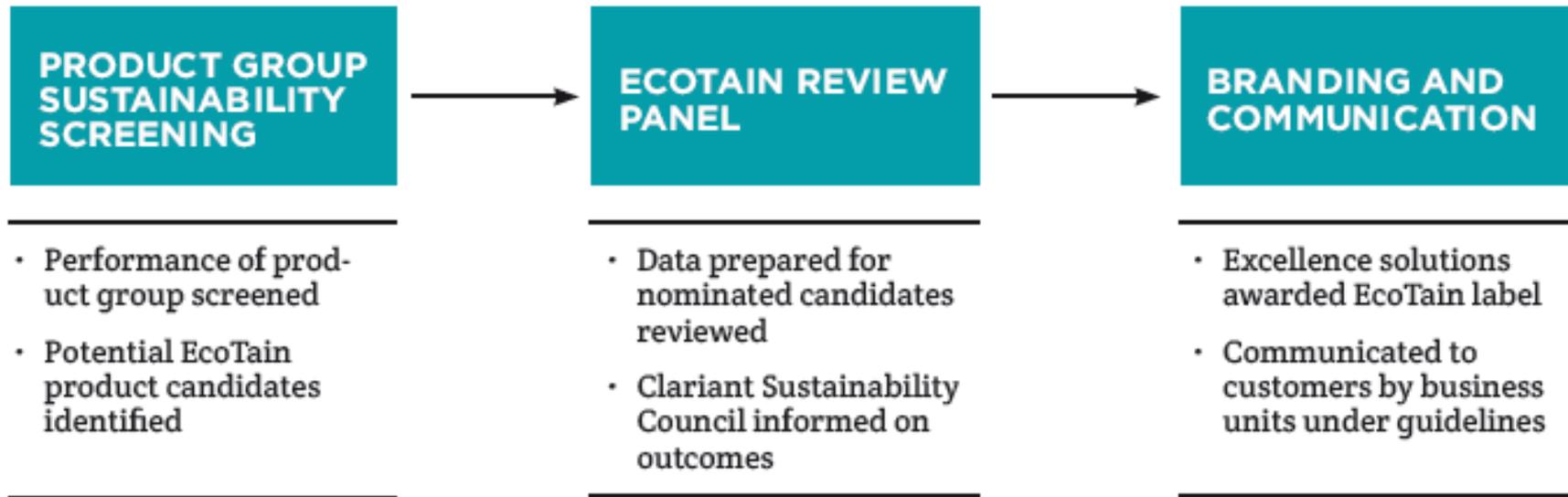
Products falling below the acceptable sustainability standard

- Products requiring most focus for action, either through improvement, replacement or discontinuation.
- Dealt with by the portfolio improvement road mapping process.

Promoting sustainable choice: The EcoTain label

Clariant's sustainability excellence solutions

THE PROCESS OF BECOMING AN ECOTAIN PRODUCT



Driving Portfolio Improvement and Sustainable Innovation

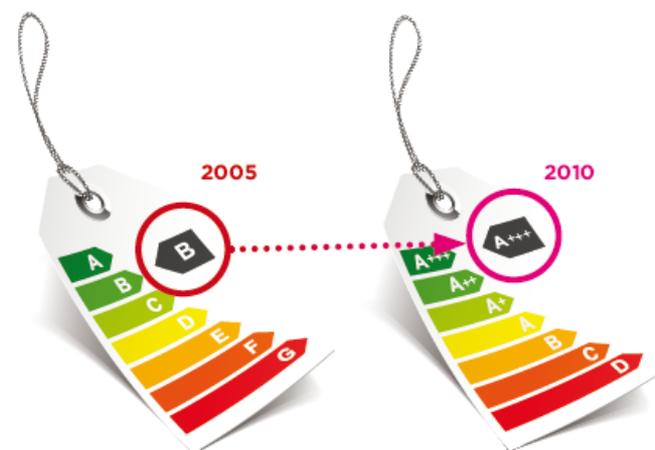
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The Product Portfolio Improvement Roadmap

PRODUCT SUSTAINABILITY IS A MOVING BENCHMARK

- **Proactivity and progress viewed as important as actual performance**
- A structured process or roadmap is being developed based on the key outcomes
- Outcomes are consolidated at the business unit and corporate levels for review, ensuring that identified risks and opportunities are screened for possible improvement
- Short, mid and long-term perspectives to be considered



EU Energy rating introduced for appliances: 90% reach energy efficiency class A by 2010

Corporate Sustainability Index for R&D Projects

CSI^{R&D}

SCREENING THE INNOVATION PIPELINE

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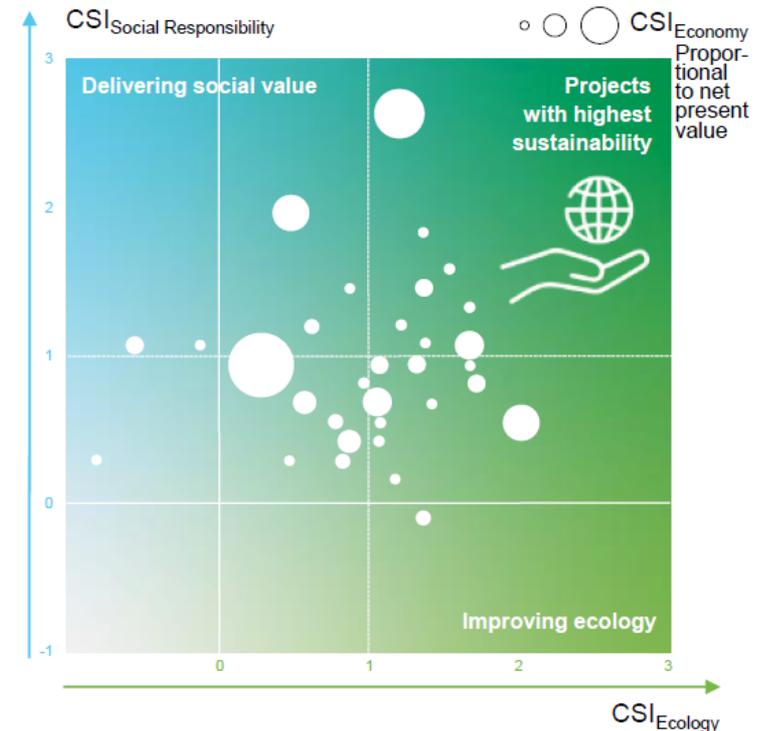
Corporate Sustainability Index (CSI) for R&D projects

VALUE CREATION THROUGH SUSTAINABILITY

Proprietary index (CSIR&D) → Linking innovation to sustainability

Holistic and life-cycle thinking
Established on the »Triple Bottom Line«
Performance, People, Planet

Indicates relative sustainability of products



Innovation Pipeline – Product optimization with CSIR&D

SUPPORTING THE INNOVATION PIPELINE



CSIR&D project assessment is mandatory at stage gate from scope to execute phase for all major R&D projects

- Indicates relative sustainability of the products to be developed
- Helping to optimize innovation project portfolio in the long-run
- Raise awareness of sustainability aspects already in early stages

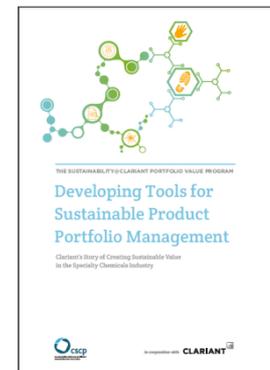


Thank you!

For further information, see: <http://www.clariant.com/ecotain>

For information on our EcoTain product uncovered so far, see:
<http://www.clariant.com/en/Solutions/EcoTain-Products>

Our EcoTain product are also featured in Clariant “Discover Value” stories: <http://www.clariant.com/en/Company/DiscoverValue>



Upcoming Events

**GC3 Green Chemistry Education Webinar Series:
Introduction to Life Cycle & Alternatives Assessment**

Thursday, June 18, 2015 | 2:00 PM EDT

**Advancing Green Chemistry: Barriers to Adoption &
Ways to Accelerate Green Chemistry in Supply Chains**

Thursday, July 23, 2015 | 12:00 PM EDT

11th Annual GC3 Innovators Roundtable

May 24-26, 2016 | Burlington, VT



Thanks for joining us!

For more information about the GC3:
www.greenchemistryandcommerce.org

