



GREEN PRODUCT VALUE CHAIN



**7th Annual GC3 Innovators Round Table
Supply Chain Perspectives
Bio-based Solvents for Cleaning Products**



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Cellulosic
Biomass

Segetis™

seventh
GENERATION



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Who is Segetis?



Who is Segetis?

- ***Green & Rapidly Growing Chemistry Company***
- ***Replacing petrochemicals with novel bio-based materials offering superior performance and sustainability***
- ***Secured composition of matter patents for long term business advantage***
- ***Leading-edge clean-tech investment backing from Khosla Ventures, MLSCF, DSM***

Renew. Reinvent. Sustain. Change the World.™

Segetis Supply Chain: Renewable Feedstock to High Value Chemicals

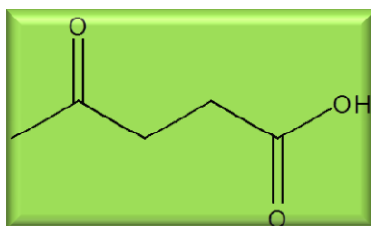
Cellulosic Biomass



Sugar

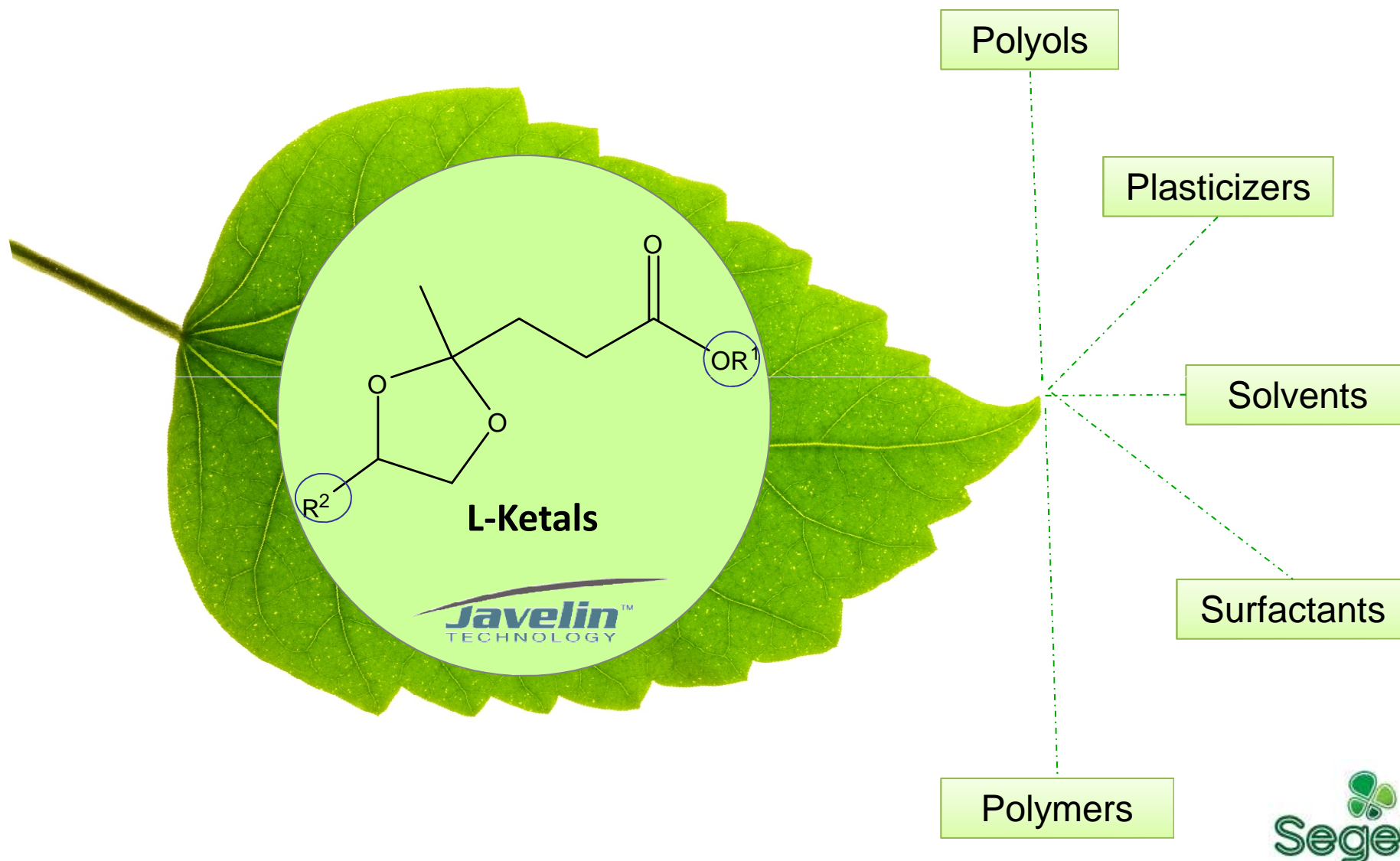


Levulinic Acid (LA)



Segetis Patented Process / Products has Created a Platform of
1,000+ Compositions with Tailored Performance based on
Javelin™ Technology

Multiple Product Lines Stem from Levulinic Ketals

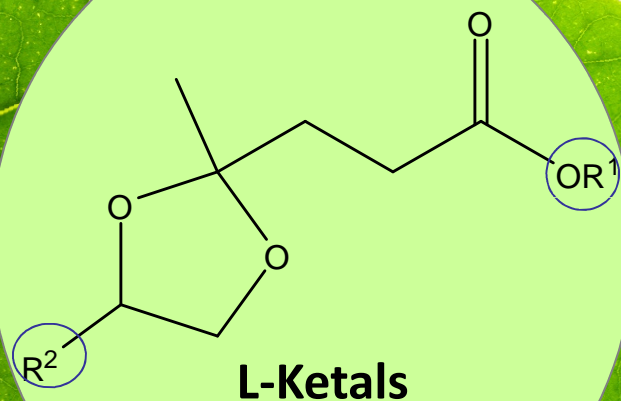


Multiple Product Lines Stem from Levulinic Ketals

Product Lines Commercial Today

Plasticizers

Solvents



L-Ketals

Javelin[™]
TECHNOLOGY


Segetis



*Sustainable Materials
Can Take on a
Leading Role For
Change*





Only if they provide ...

Performance, cost
effective economics
and a dramatically
improved health and
environmental footprint

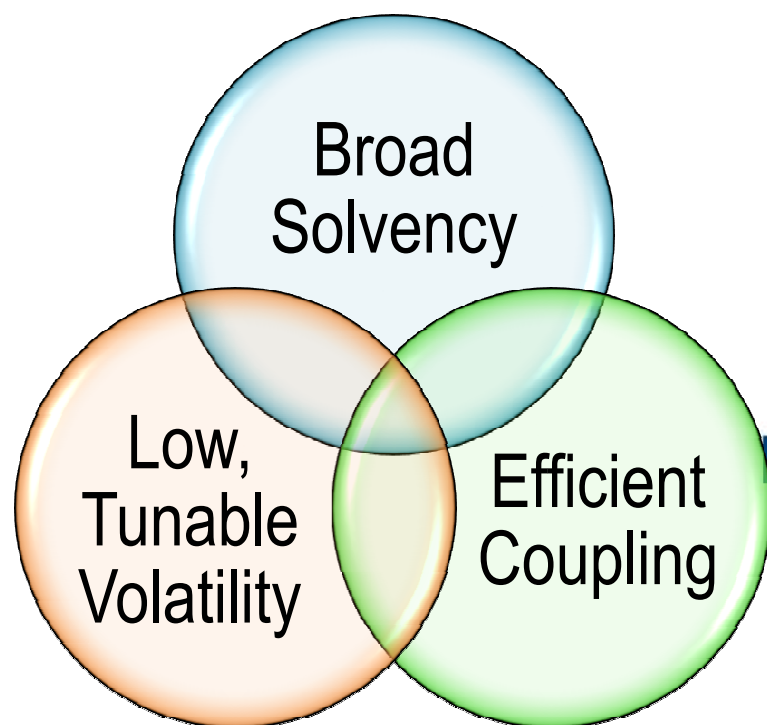


Directional Change in the Specialty Solvents Market

- Non-Toxic
- Strong Solvency & Coupling Power
- VOC Compliance in Cleaners, Coatings & Personal Care
- Low-No Odor
- New Performance



Segetis Universal Functional Solvents



Cleaners

Aircare



Personal care
& cosmetics



Laundry



Paints



Address the needs of multiple specialty solvent markets

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Consumer



Although there are drivers to
performance & safer alternatives,
the supply chain has its challenges



New Chemistry Requires New Thinking

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- What the heck is a Levulinic Ketal?
- I need to think differently?
- Not a synthetic equivalent?
- Softer pH?
- No VOCs?
- Rethink my formulations?
- Similar plus new performance?

New Thinking Requires Customer Collaboration



- Thinking differently is what has enabled Seventh Generation to bring innovative new “performance” products to the Market using Segetis Solvents
 - Wood Cleaners
 - Stainless Steel Cleaners
 - Granite Cleaners

Enhancing the Sustainability Profile



In comparison to petro-based alternatives

- Save **2 gallons of gasoline** per gallon of Segetis product
- Save **7 tons of CO₂-equivalents** per ton of Segetis product

3rd Party LCA modeled “field to product”



Dramatically Improved Health and Environmental Footprint

Segetis Solvents:

- LD50 > 5000mg/kg- Non-Toxic
- AMES testing shows no mutagenicity
- Biodegradable
- “Mild” eye irritation; no skin sensitization
- All modeling shows low risk to human health and the environment
- No restrictions from EPA for water release
- Non VOC for consumer products





Performance & Sustainability Without Compromise





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