

A GC3 Startup Network Webinar

**Nouryon's Startup Challenge**  
**Imagine Chemistry:**  
**Advancing Sustainability Through**  
**Collaborative Innovation**

Tuesday, December 11, 2018



# What is the GC3?

The Green Chemistry & Commerce Council (GC3) is a multi-stakeholder collaborative that drives the commercial adoption of green chemistry by catalyzing and guiding action across all industries, sectors and supply chains.



# Our Vision and Mission

**Vision:** A world where green chemistry is standard practice throughout the value chain.

**Mission:** To drive the commercial adoption of green chemistry by catalyzing and guiding action across all industries, sectors and supply chains.



# More than 130 Members Across Sectors and the Value Chain

amazon.com<sup>®</sup> EASTMAN Steelcase Johnson & Johnson Walmart\*

LOWE'S SHERWIN WILLIAMS. DOW ESTÉE LAUDER COMPANIES Apple THE HOME DEPOT hp

Chemours L'ORÉAL TARGET Kingfisher CVS Health

STAPLES vf BEHR 3M Unilever BEST BUY

LEVI STRAUSS & CO. Johnson A FAMILY COMPANY Beiersdorf BEAUTYCOUNTER

Nike BASF The Chemical Company seventh generation. NB covestro COLGATE-PALMOLIVE

GC3

# GC3 Startup Network

*Creating an innovation ecosystem for green chemistry technologies*

## Goals

- Support green chemistry start-ups
- Introduce large strategics to new chemical technologies, partnership and investment opportunities

## Main Activities:

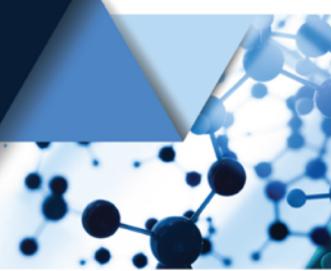
- Technology Showcases
- Strategic Connections Program
- Webinars
- **Coming:** Expansion into South America and further expansion into Canada

# Members of the GC3 Startup Network Include:



# GC3 Startup Network Technology Showcases

Second Annual  
**Green & Bio-Based Chemistry  
Technology Showcase &  
Networking Event**



April 24, 2017  
Amway Grand Plaza Hotel  
Grand Rapids, MI

**GC3 GREEN CHEMISTRY &  
COMMERCE COUNCIL**

**Green & Bio-based  
Chemistry  
Start-up Event**

May 23, 2016  
Hilton Burlington Hotel  
Burlington, VT

**GC3**  
GREEN CHEMISTRY &  
COMMERCE COUNCIL  
Business Mainstreaming Green Chemistry

**THIRD ANNUAL  
Green & Bio-Based Chemistry Technology  
Showcase & Networking Event**

Tuesday, May 8, 2018  
MeadowView Conference Resort & Convention Center, Kingsport, TN

In support of our efforts to mainstream green chemistry, the GC3 Green & Bio-Based Chemistry Startup Network is designed to foster the growth of green and bio-based chemistry startups and accelerate the market adoption of innovative green chemistry technologies. The goals of our third annual GC3 Green & Bio-Based Chemistry Technology Showcase & Networking Event are to:

1. Connect green and bio-based startups to suppliers, brands, retailers, and investors who can provide insight on their technology needs and interests, provide directional advice, and explore potential partnerships and investments for testing, development, and scale;
2. Provide an opportunity for suppliers, brands, and retailers to discover new ingredients and materials for their products, build relationships with innovative startups, and find new partnership and investment opportunities;
3. Discuss strategic needs, interests, and directions of various industry sectors to help inform startups' R&D and applications priorities.

**INVITED SPEAKERS — LARGE PRODUCT MANUFACTURERS**

**BASF** Patrick Harmon, Research Chemist  
**L'Oréal USA** Jeanne Chang, Assistant Vice President  
**Petagonia Inc.** Laura Hoch, Materials Innovation Engineer

**PRESENTING STARTUPS**

**ACTICELL GmbH**  
Joergen Jolly, Partner  
www.acticell.at | j@acticell.at  
ACTICELL develops chemical technologies for the surface treatment of cellulosic materials including denim fabrics and clothes. ACTICELL's non-toxic and environmentally friendly products can be used as dyeing enhancers or as bleaching agents to replace hazardous technologies.

**ADVONEX INTERNATIONAL**  
Michael Tkautz, Business Development Manager  
www.advonexintl.com | mtkautz@advonexintl.com  
Advonex International produces renewable hydrocarbons from biologically-derived plant oils, fats and greases through a patented electrochemical process. Advonex products provide the personal care, automotive and coating industries with a bio-based substitute to petroleum-derived ingredients including high-performance base oil, white oil, wax, gels, and alpha olefins.

**GC3 GREEN CHEMISTRY &  
COMMERCE COUNCIL**

10 | Innovators Roundtable | May 8-10, 2018

<http://greenchemistryandcommerce.org/startup-network/>



# 4<sup>th</sup> Annual GC3 Technology Showcase



Calling all innovators developing green chemicals, materials, products or manufacturing technologies!

**Application will open shortly. Deadline Feb. 1, 2019**

<http://greenchemistryandcommerce.org/startup-network/>





# Imagine Chemistry Collaborative Innovation Webinar

3rd edition 2019

December 2018

**Nouryon**

# Introduction Nouryon

Formerly known as AkzoNobel Specialty Chemicals

# A global specialty chemicals leader

- Produce essential chemicals
- Experts in highly demanding chemistry
- World-class business with strong financial performance, leadership positions, and long-term customer partnerships
- Top-tier performance in safety, sustainability, and reliability
- Leveraging nearly 400 years of experience, our global presence, and our strong company culture to unleash our full potential as an independent company

About **10,000**  
employees  
worldwide

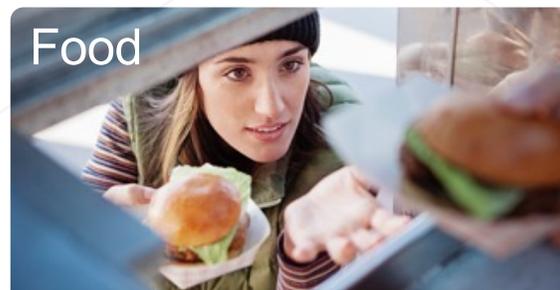
Operating in over  
**80** countries

**€5.0** billion  
revenue in 2017

**80%** of our  
revenue comes  
from #1 or #2  
positions

# Supplying essential chemistry to markets worldwide

- Experts in highly demanding chemistry
- Supplying markets with essential chemicals for manufacturing everyday products
- Our products play an essential role in everyday life



# Growth driven by innovation

- A portfolio rich with innovative products
- Investing in RD&I to drive growth, create safer and more sustainable products and processes, and improve the way we work
- Opening up to the ideas and enthusiasm of outsiders to achieve our full potential and help build a more sustainable industry
- Working closely with customers and partners to develop sustainable solutions

**700**  
employees  
in RD&I

**€100 million**  
per year  
invested  
in RD&I

Imagine Chemistry  
challenge  
generated  
**over 350 ideas**

More than  
**5,000**  
patents

# Imagine Chemistry Collaborative Innovation Challenge

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# Imagine Chemistry

Solving real business challenges and make a better world with chemistry

Collaborate as *equals*, by being *transparent, listening and learning* from each other

## Startup solutions

- Fresh ideas
- New perspectives
- Passion and energy



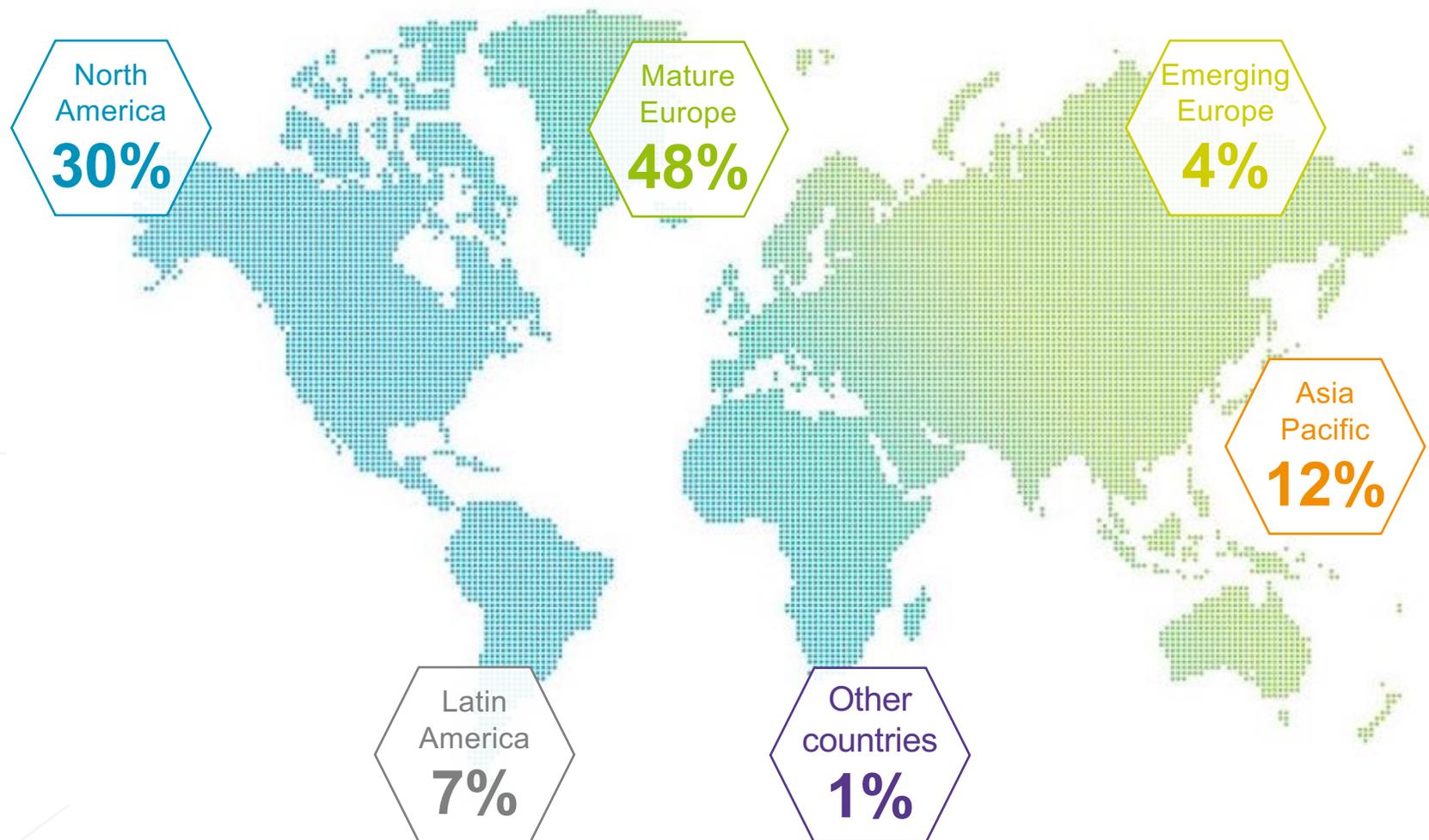
## Nouryon global capabilities

- Bring ideas from lab to production
- Safety and operational excellence
- Global footprint

*“We seek to get infected by start-up passion; in exchange offering our experience, capabilities and route-to-market”*

# Two Editions of Imagine Chemistry

350 submissions with a truly global spread



# A unique approach

Intensive collaboration for route to market

## Unique approach

From 1 year to 3 days.  
By bringing together  
all decision makers &  
decide on the spot

## Business impact

Focused on real-life  
business challenges.  
Solutions can be  
brought to market

## Collaborative approach

Not a beauty contest  
but joint development.  
No IP claims in  
advance and shared  
IP

## One-stop shop & deep screening

Cover all aspects of  
business plan in 1  
event: 70+ experts,  
decision makers and  
partners

# Thorough technology and business assessment

73 experts, 8 fields of expertise, 141 sessions during the finals



# Imagine Chemistry 2018

# 2018 finals Gothenburg

- 20 Mentors
- 40 Finalists
- 70 Experts
- 140 Individual sessions

And many, many others  
...a lot of networking

And now the real work starts...  
...form dedicated teams and bring solutions to market

# 2018 awards

Based on 7 criteria, including the value case

The AkzoNobel Chemicals  
Startup Challenge

Partner  
awards

Joint  
Development  
Agreements

AkzoNobel  
Chemical  
support

Research  
Agreement

Sourcing  
Agreements  
Launching  
Customer

Green Island Technologies  
& Dixie Chemicals

Water Knight

Fero Inds

Solugen

# We continued collaboration with 20 Finalists



## Solugen (US) – Gaurab Chakrabarti and Sean Hunt

Solugen is a venture-backed green chemicals company that uses enzymatic processes to create bio-based oxidants. Their proposed project to conduct with Nouryon is the enzymatic production of hydrogen peroxide.



## Fero Labs (US) – Berk Birand and Alp Kucukelbir

Fero is an industrial machine learning software that is powering the next wave of industrial process improvement.



## Invert Robotics (The Netherlands) – James Robertson, Robert Mandjes and Hans Prein

Invert Robotics provides non-destructive inspection services using state-of-the-art mobile climbing robots. Their robots enable precise and accurate remote inspections of surfaces which are difficult or dangerous for humans to access. In so doing, they are helping make inspections safer.

**20 Finalist and 10 different awards presented**

# Imagine Chemistry 2019

# Strong external partners

Outreach, content and win-win

Nouryon



luxresearch



Innovate UK  
Knowledge Transfer Network



Imagine **Chemistry**

# 2019 Imagine Chemistry Challenges

## Sustainable bio-based surfactants for everyone

How can we together make 100% bio-based and zero-hazard surfactants accessible worldwide?



## Sensing in demanding chemical environments

Will your innovative sensing solution help our demanding chemical processes approach 100% resource efficiency?

## From plastic waste to valuable feedstock positions

Do you have a solution to help us upcycle polyolefins?

# 2019 Imagine Chemistry Challenges

## Performance-boosting nano particles

Do you have a small particle solution to enhance the performance of our customers' products?

## Open idea challenge: Pushing the frontiers of sustainable innovation

Do you have an innovative idea on how to build a sustainable future together?

## Label-free chemistries

How can your novel label-free chemistry simultaneously control interface and fluid properties for our consumers/customers?

## Who can submit a solution?

Proof-of-principle to full product



### Startups

You have a proven concept which could be a solution for one of our business challenges.



### Scaleup

You have successfully launched your product and are ready to explore new applications and markets



### Suppliers

You have a solution working in a different market that matches one of our business challenges



### Universities

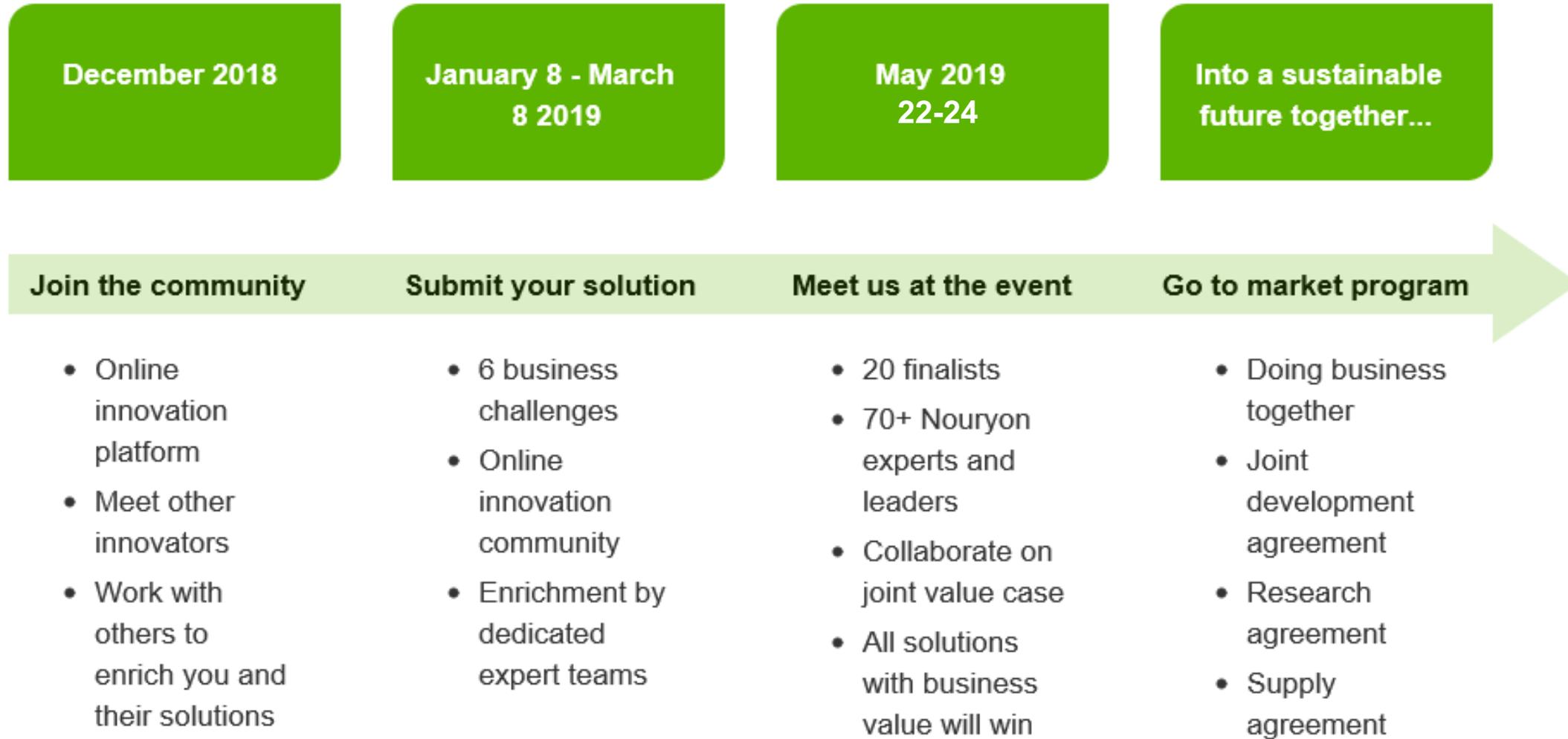
You work at a university and you have a proven concept that is ready for valorization.



### Research Center

You work at a research institute and you have a proven concept that is ready for valorization.

# How it works





## Join us



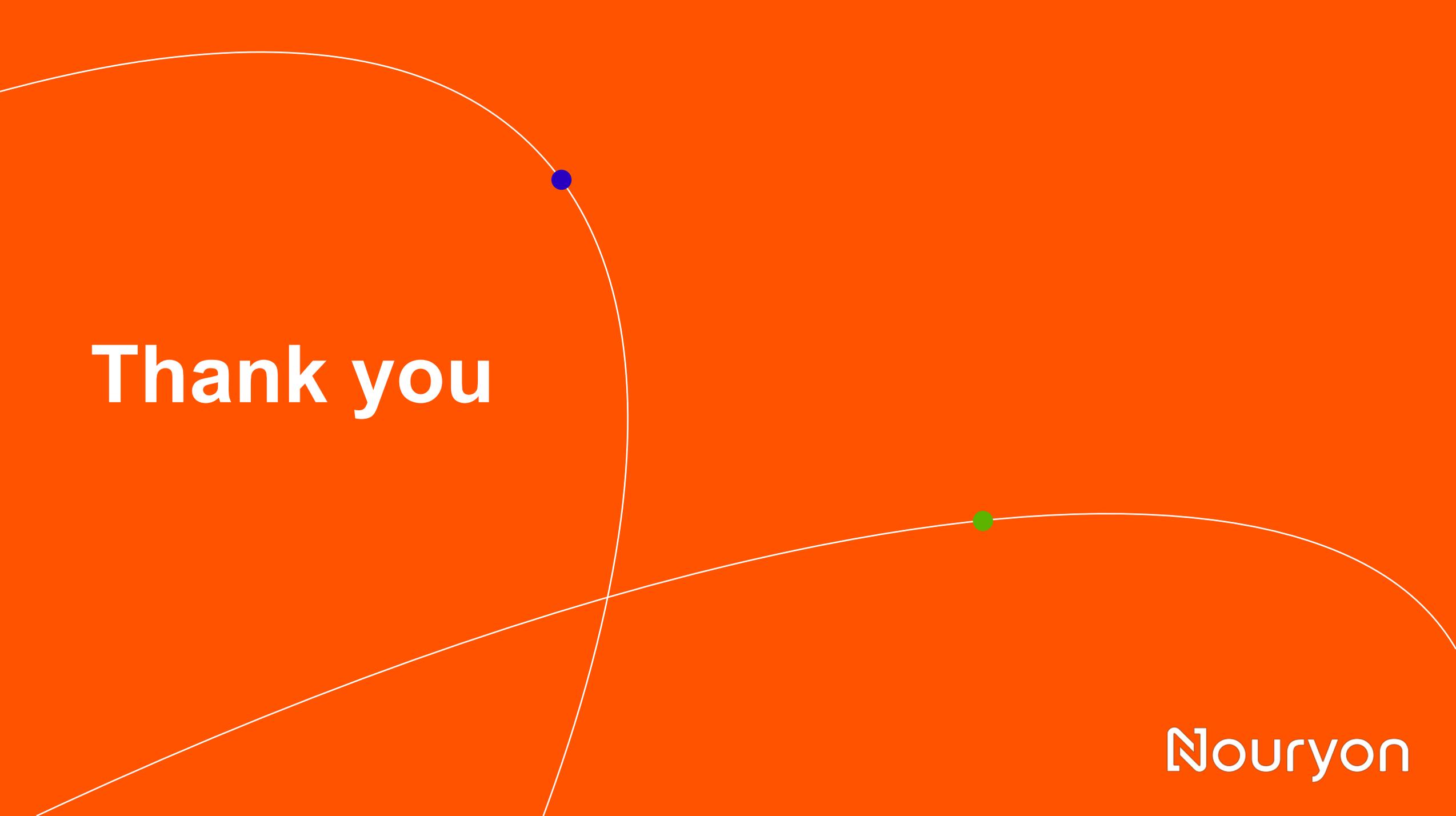
[imaginechemistry.com](http://imaginechemistry.com)



[@ImagineChem](https://twitter.com/ImagineChem)



[imaginechemistry@nouryon.com](mailto:imaginechemistry@nouryon.com)

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**Thank you**

**Nouryon**



# Upcoming Webinars

## **ChemSec Marketplace: An exchange platform for green chemistry alternatives**

Tuesday, January 22, 2019

12:00 – 1:00 PM EST

## **Championing Your Ideas with Coordinated IP Strategies**

Tuesday, February 26, 2019

12:00 PM - 1:00 PM EST



# GC3 INNOVATORS ROUNDTABLE

MAY 7-9, 2019 | HOSTED BY P&G FABRIC CARE, CINCINNATI, OHIO



**14<sup>th</sup> Annual  
GC3 Innovators Roundtable**  
May 7-9, 2019

**Check website for updates**

[www.greenchemistryandcommerce.org](http://www.greenchemistryandcommerce.org)





# **Thank you for joining us!**

For more information about the GC3, please visit  
[www.greenchemistryandcommerce.org](http://www.greenchemistryandcommerce.org)

