

Seeq

Juliana Fidalgo Automation Scientist









Part 2 | Empowering Transformation: From Site & Regional Level (The SAR Region)

Juliana Lima Guerhard Fidalgo

Indorama Ventures PLC



Driving Global Success | Advanced Analytics & Change Management Strategies

Part 2 | Empowering Transformation: From Site & Regional Level (The SAR Region)



Juliana Lima Guerhard Fidalgo



From Champion to Regional Lead: Transforming a Region by Prioritizing People Over Projects

Indorama Ventures: Who we are

OUR PURPOSE

Reimagining chemistry together to create a better world.

OUR VISION

To be a world-class sustainable chemical company producing indispensable chemistry that touches billions of lives every day.



Presence in 32 countries



Consolidated revenues of \$15.4 billion

(FY2024)



Manufacturing facilities

114



Employees

~25,000

Business segments







(CPET)

Combined PET

Indovinya

Fibers



rPET producer globally



ethoxylation company globally

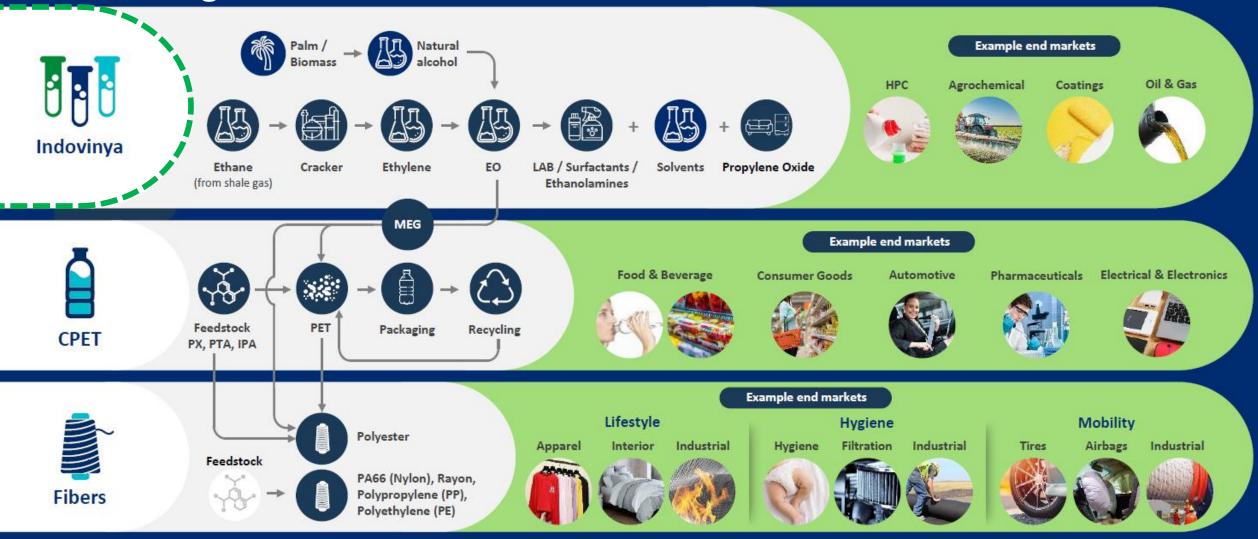


in PET staple fiber production in ASEAN



in airbag yarn

3 Main Segments of the Indorama Business



Indovinya chemistry touches our lives every day

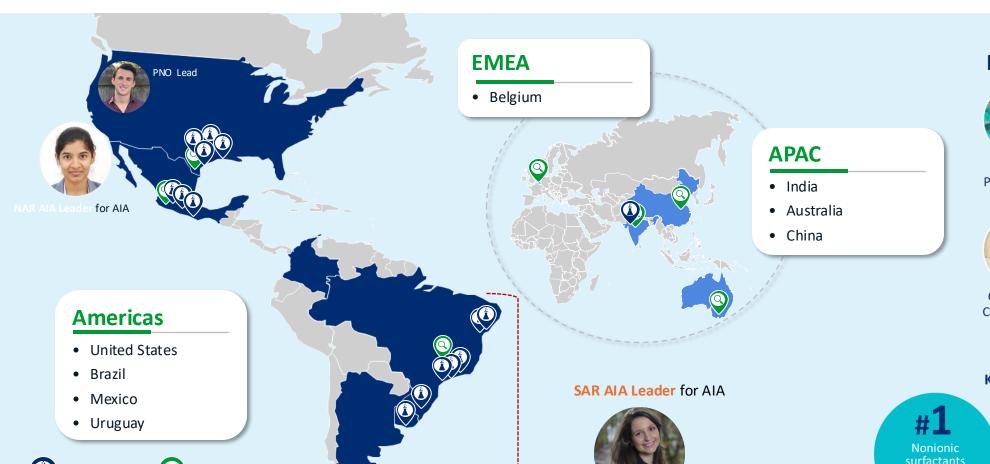




R&D & Tech Centers

Denotes Sales Presence

15 manufacturing sites 7 R&D & Tech centers Presence in 10 countries $\approx 3,000$ employees



MAIN MARKETS



Home & Personal Care



Crop Solutions



Coatings & Construction



Energy & Resources

Key factors of relevance

surfactants producer in

the Americas

Supplier of Homecare **Ingredients**

Leading supplier in crop solutions in the



Highlights





Ph.D. candidate on Modeling and Process Control



Digital & Automation Engineer

Experience – 9 Years

Chemical Engineering, M.Sc.

SAR AIA Leader (1 yr)

Digital and Automation Engineer - Engineering and

Maintenance (2 yrs)

Data Scientist (4 yrs)

Chemical Engineer Researcher (3 yrs)

Juliana Lima Guerhard Fidalgo

I'm passionate about data analytics and disruptive technologies, and I truly believe that engaging, sharing, and empowering people through knowledge is the path to transformation.

Advanced Industrial Analytics (Or AIA) For Everyone



Industrial analytics early adopter

Year 1 – Indorama Champion Program

15 Months Seeq - User



Visionary leader

Accelerating value through strategic execution, innovation, and early success sharing of the AIA Movement



Tech. Anchor to scale capabilities

Currently supporting addition of AIA across IVL sites across the Globe

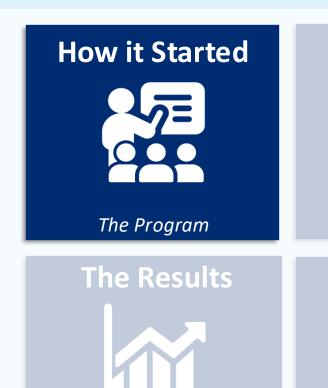


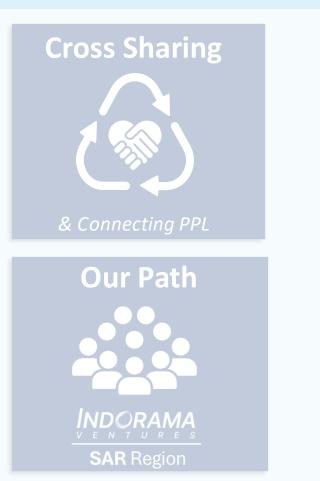














Indorama AIA Program Goal: Empowering our Process/Equip SME's & DS Communities



Enabling **OUR** people

- Creating cross functional collaboration groups to improve operational excellence across different sites (9)
- Providing Best in class Advanced Industrial Analytics (AIA) training & ML tools to all in the #Seeg Community



SpecializedAssistance

- Technical assistance on demand for sites that are using AIA Tools
- Additional support integration to facilitate speed up problem solving in specific core processes with help of Machine learning tools



- Machine learning app development to facilitate "No-code" gaining the insights quickly from ML Models
- Sharing globally add-ons & solved use cases (How to's step by step)
- Training on No-code ML add-on tools



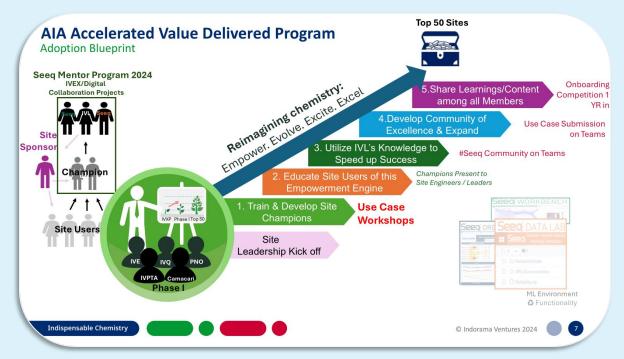
Leadership **Support**

- Transformation initiative was enabled by the transformation vision.
- Providing the Resources to continue to support at a broader scale



How it started | SAR's first 9 Month Journey

- AIA Accelerated Value Delivery Program
 - (Indorama's Champion Program)



5 Step Program

Champion in Program | Phase I CAM





The Results of Year 1

Phase I and Phase II | CAM & MAU

Digital x **IVEX** COMPETITION 2024



8 Sites

Scaling Across Indorama Ventures: Aims to onboard 15-20 sites by 2025 and the top 50 by 2026, leveraging the successes of phase one sites.

Formation of a community to develop AI models and custom solutions tailored to Indorama Ventures specific needs. **Future of Data Analytics:**

The Camaçari Team

Was declared the Winner

for their outstanding achievements in operational improvements and cost savings, setting a benchmark for continuous improvement within Indorama Ventures.

Your support makes a difference

Digital x IVEX

Camacari Team WINS the Indorama's AIA (Seeg) Competition!



Was declared the Winner

for their outstanding achievements in operational improvements and cost savings, setting a benchmark for continuous improvement within Indorama Ventures.











Culture Change + Scaling Success + Our people = Better Decisions Faster



Through Digital Deployment and IVEX Methodology, we have empowered our site teams to achieve outstanding results and spread AIA across their sites.



Empowering Teams

The real value lies in the cultural shift at our sites. Teams are adopting and supporting Seeq, making better decisions faster, and expedite value creation.



Cultivating Excellence

Seeg to drive cultural change, empower their teams, and achieve significant results.



Go Live - Project Operation Launch + Site Actions + Post-Audit

Checkpoints - Meetings between developers, rollout users and OT Digital member for issue resolution.

Copy & Paste - Replicate Seeq configuration and make adjustments to improve the solution with support from an OT Digital member.

Team & Value Strategy - Form a team with IVEX and the Key Champion to standardize value capture across sites.

Solling Stranger of the Strang Collaboration - Connect developers with new users to explain the project and share how-to documentation.

Cross-Sharing - Exchange"Top VC contributors" Use Cases in "Seeg Day".

Y2 Global Modified Deployment



Anneke McCabe, **SeeQ** CS Manager



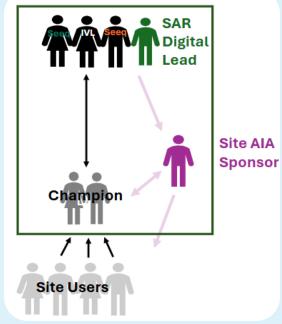
Amanda Thomas, **Global Seeq Lead**



Teddy Turfitt, See0 AF



Juliana Fidalgo, SAR AIA Leader for AIA





A Day in the Life: Regional Lead for SAR's Region

CULTURAL importance of Regional Leads

From Champion



Hands-on experience with AIA/ML

By adopting circular economy principles, maximizing resource.



Deep Commitment

Demonstrated strong commitment to mastering the system through ongoing learning.



Invested significant time in Seeq

in developing and refining practical solutions. Collaborated with colleagues to troubleshoot, support and scale results.



Project Delivery Focus in 2024

addressing real operational challenges.

For team engagement and inspiration at Pearson





to Regional Lead



Communication & Engagement

Promote the AIA Program by articulating its value, sparking engagement, celebrating wins, and positioning it as a catalyst for cultural transformation.



Site Presence & Customization

Foster trust through in-person collaboration, providing tailored support to enable long-term adoption and cultural change.



Training & Support

Support new users with technical guidance, sharing knowledge and promoting effective use of Seeq through strong governance.



Governance & Strategic Focus 2025

Bridge the gap between strategic goals and operational reality at industrial sites.



Step 3 Connecting People: Face to Face workshops across Brazil



















The SAR Program Results

Global Track & Communicate "Deliver"



Tech adoption & Communication

V2V@Scale & Utilize other's Success

A: Charter Updates Monthly B: CTOs Updates Monthly

C: AIA Progress Live Automated Dashboard

Partnering with IVEX, Digital, CPET Charters

15 Months deployed, & Over 5000 hrs. in Seeq!







Building Complexity and Value delivery | Batch Units Applications

Velocity of Value @ Scale

Phase III

SHARED KNOWLEDGE drives faster value – each batch build future readiness

Phase III **SUZ** Phase II · More production hours available **MAU TBE** Phase I DMAIC Methodology Increase the unit OEE **CAM** Find a minimum reproducible cycle time · Remove inefficient operations · Speed up all possible steps Monitoring Reactor Cycle Time Asset Tree building Foundation

Indispensable Chemistry

< 4 Months Champions

Increased Complexity



= Deeper Technical Growth

Gains

- Cycle time tracking
- Process variable trending
- Failure detection
- Batch vs. gold profile comparison



G.B. Ref. Profile was implemented

Expanding to the Ops Board for enhanced oversight.

Operational Excellence at Scale | Steam Consumption

LEAN Monitor, Optimize, Save!

+4500tCO₂/year GHG reduction

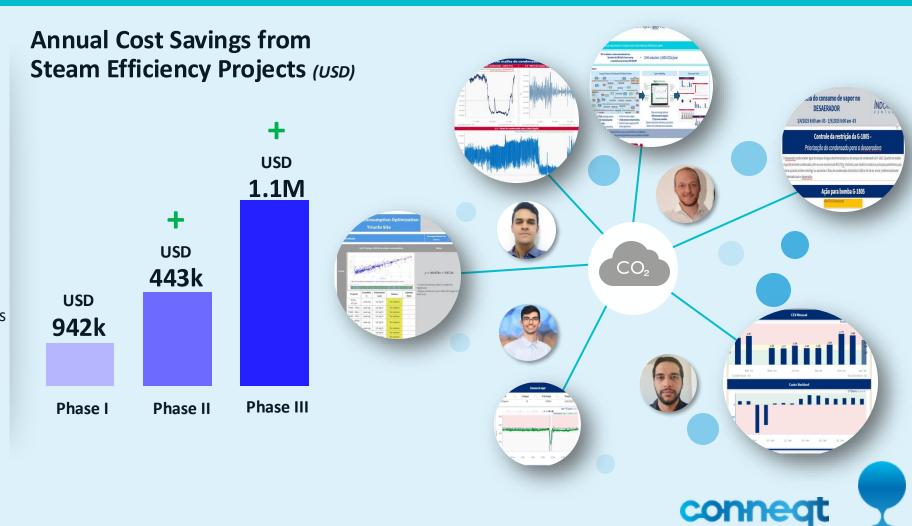
Scaling Value at Speed to driving efficiency in #1 VC

0.4 Decrease in Technical Metric driving strategic optimization

Operational control of CEV monitoring in petrochemical units

Asset monitoring to optimize condensate splitting pattern

Monitoring 180+ process variables to enabling data-driven decision-making



Connected Expertise, Amplified Results | Predictive Maintenance



IE & Control Systems

- ON-OFF Control Valve
- Monitoring Faulty Instrumentation



Rotating Equipment

- Track motor runtime to optimize lubrication & bearing replacement
- Vibration Analysis





Static Equipment

- Control Charts for IOW Analysis (AP 584 Standards)
- HX Monitoring & Prediction



Gains:

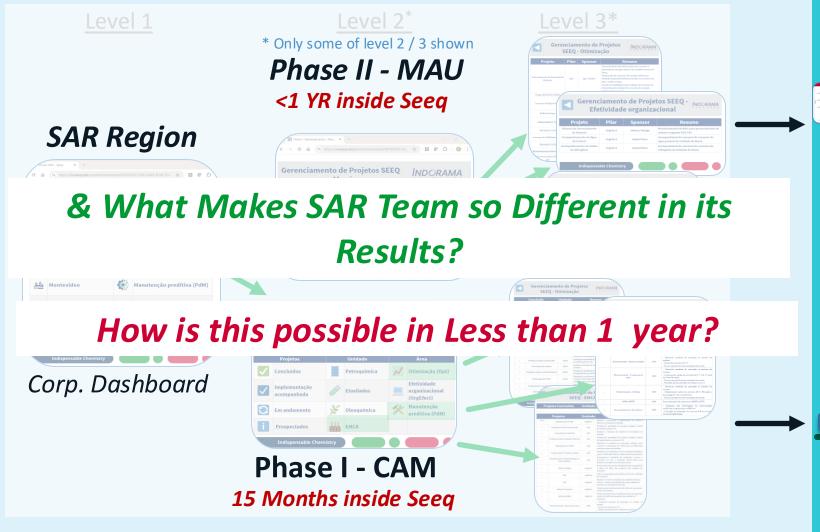
Boosts equipment availability & reliability
Scheduled maintenance & fault diagnosis
Minimizes unexpected downtime
Extends asset lifespan

Cuts corrective/preventive maintenance costs Improves planning for resources & spare parts



From Early Adoption to Maturity

SAR's Region has accelerated its Seeq journey through....



Strong governance, collaborative teams, and impactful project delivery.

From 0 to 1 Year & Only 2 Sites! الأنتنانيناأا Operational Excellence Mindset Readiness & Sustainable Future



SAR Region



How can this be done in a short period?

Ready.... SET SCALE!

Celebrate!!!

Velocity of Value @ Scale



Culture Transformation:

The V.A.L.U.E. Program



Language & Onboarding Challenges

Vision – Inspiring a Clear path towards Transformation

Action – Taking Deliberate Steps to create change

Learning – Continuously growing through experiences

Unity - Collaborating to achieve shared goals

Empowerment – Elevating people to unlock their potential





Culture Focus EMPOWERING & Connecting our Great Assets >> Our People



Vision – Inspiring a Clear path towards Transformation
Action – Taking Deliberate Steps to create change
Learning – Continuously growing through experiences
Unity - Collaborating to achieve shared goals
Empowerment – Elevating people to unlock their potential

Maximize engagement and drive
impactful results with clear
communication, inspired
teamwork, commitment and a
clear path to success



Language Focus Scaling success is made possible by supporting Language Support



Portuguese training & platform





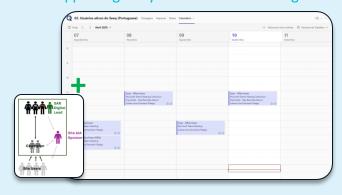
Al Support

Prompt to return in Portuguese





Supporting Daily office hours in Portuguese



Voices of Our Champions Ai Response:

Ai supported formula creation based on user insights in Portuguese; adjustments were needed depending on complexity. By William Bariviera

Ai was crucial to clear doubts about formulas and suggest alternative solutions during project difficulties; used in Portuguese. By Felipe Previtale

Ai helped select correct formulas, with some modifications needed; used in Portuguese and understood questions well. By Leandro Mendes

Ai automated complex calculations like mass balances and molar flow rates, reducing time and improving accuracy; all interactions in Portuguese. By Fabricio Gusmão

Ai was important but required very

Champion Program Response:

Weekly workshops with experts made project development more productive and helped achieve objectives. By Leandro Mendes

The Champion Program supported users from troubleshooting to deep Seeq understanding; workshops made steps clear and fast. By William Bariviera

The program united skilled professionals from different units, trained them in Seeq, and offered mentorship to accelerate results. By Felipe Previtale

The program fostered collaboration, leadership, and problem-solving, improving process stability and generating cost savings. By Fabricio Gusmão

The program built an expert network.

1 YEAR AIA Program

A CELEBRATION!

IVL SAR'S Region
AIA Workshop

pril 2025







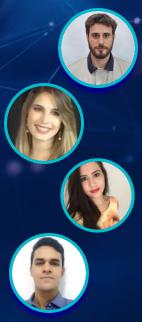






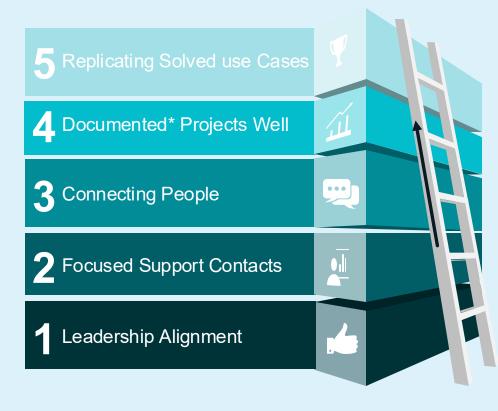






Summary of Success | Made Possible by Our Leaders by Prioritizing PPL Development for a lasting Impact







SA Chief Technology Officer



Director of Project Management & Implementation, Operational **Technology & Asset Care**



Operational Technology (OT) Manager at Indorama Indovinya



VP Digital Operations Excellence



Global Digital Applications & Advanced Analytics Leader

Some of the Leadership support from Global Digital Some of the Leadership support from Indovinya Team





In Conclusion

Global Indorama Movement



Champion Program

Documented Use Case

Celebrate

SAR Edition



Solve Once & Replicate

Cross Share

Connecting People



Faster Deployment

Faster onboarding

Deeper Technical Gains



Culture Transformation:

The V.A.L.U.E. Program

Language & Onboarding Challenges

Celebrate!!!







Thank You Let's Conneqt

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