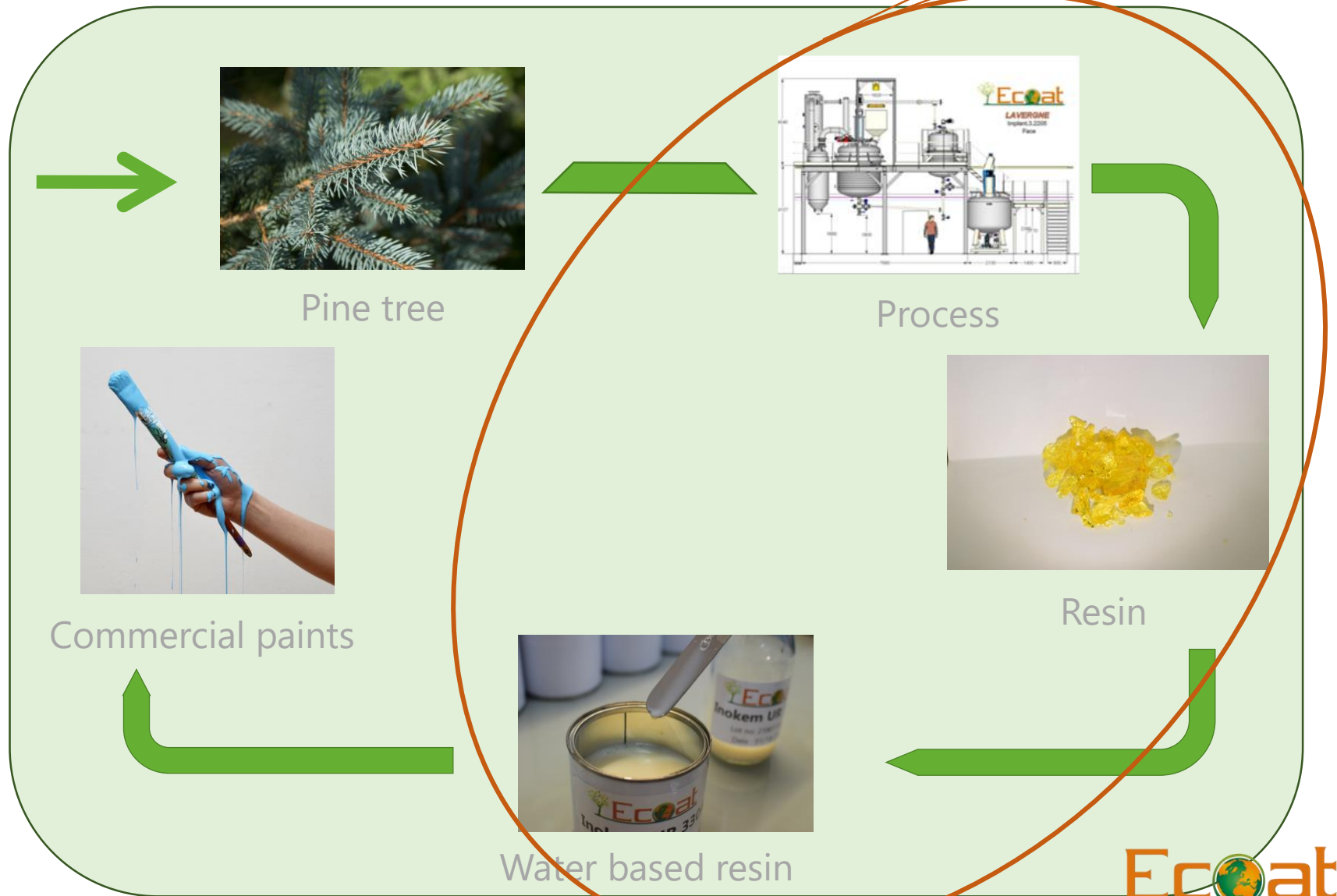




# PRESENTATION **Ecoat**

CONFIDENTIAL

# ECOAT overview



Water based resin

CONFIDENTIAL





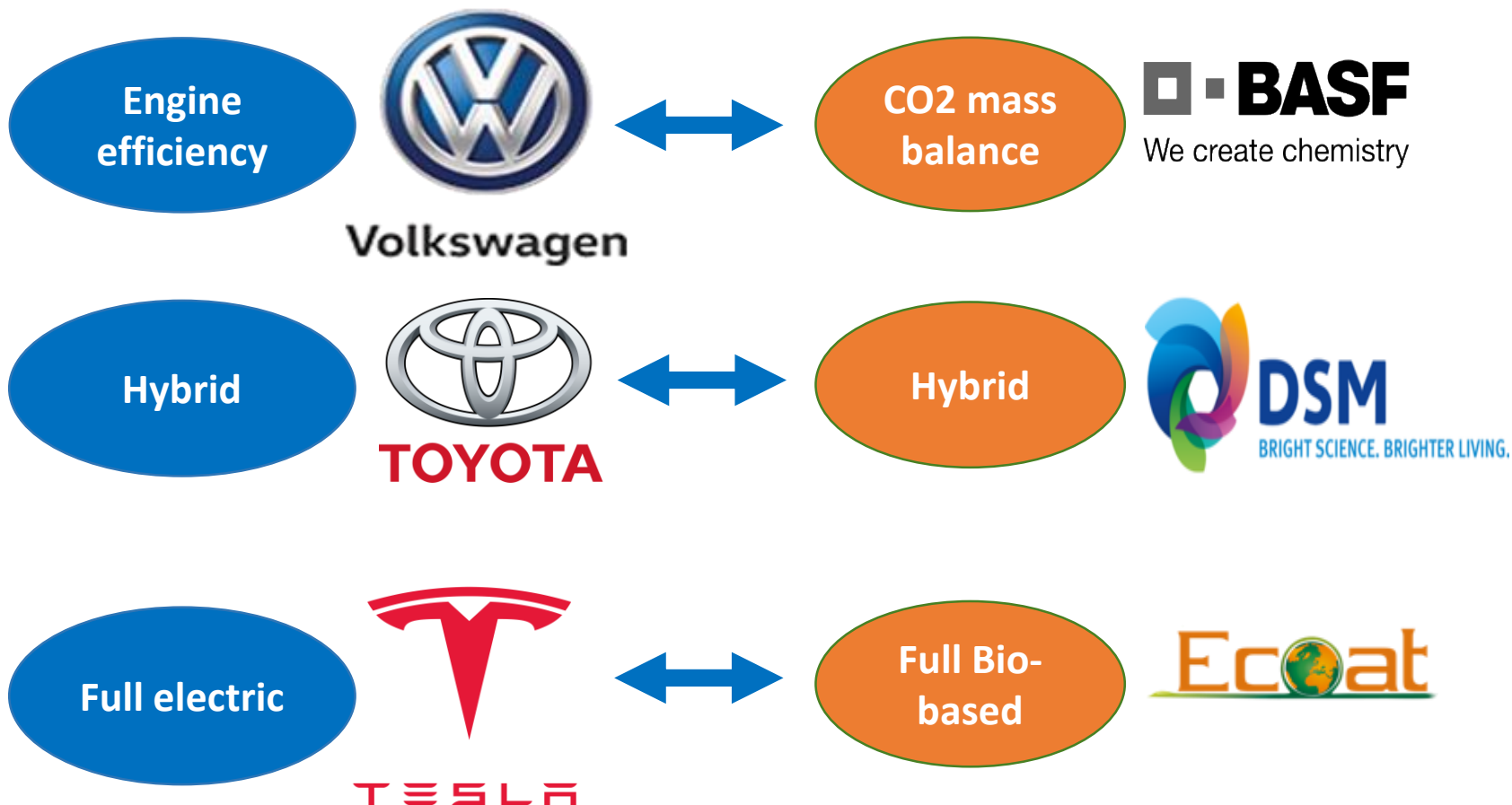
# Sustainability strategy

## Similarities between automotive and Coatings industries



### AUTOMOTIVE INDUSTRY

### COATINGS INDUSTRY



### FORCAST TRENDS

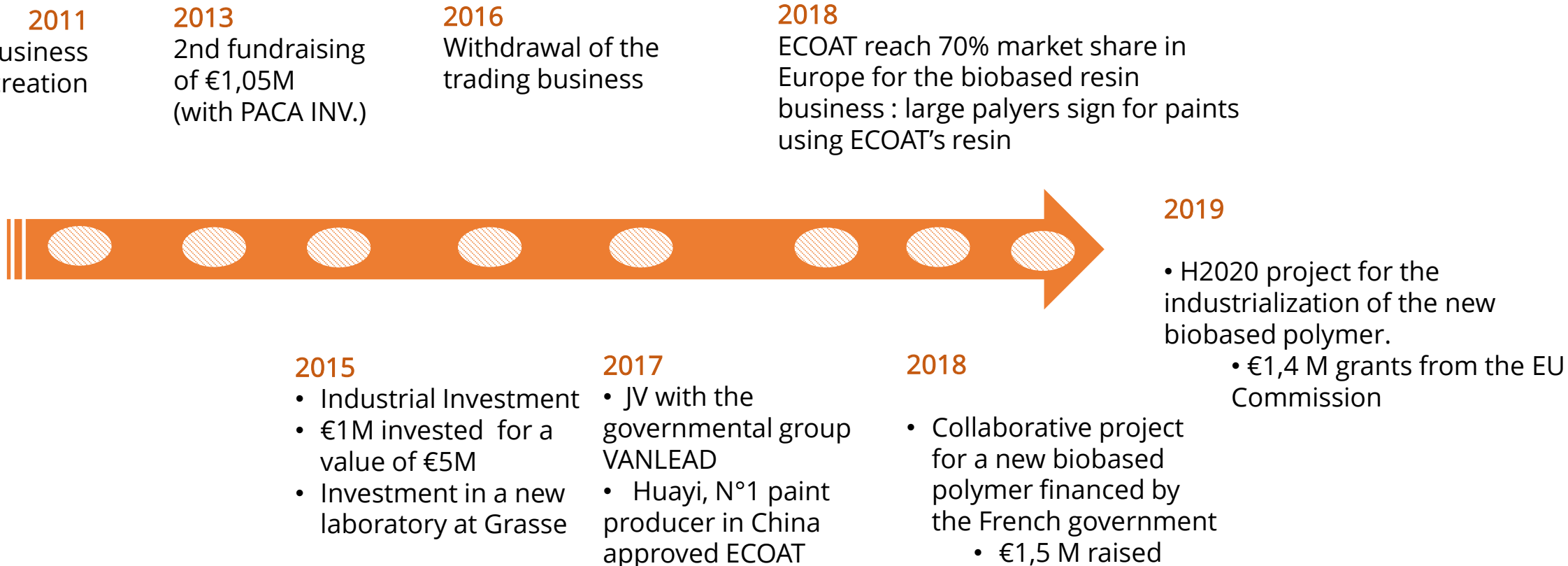
**Efficiency** is a must. The positioning will be diluted

Will remain for industrial and specific segments. Structurally more expensive

Will grow in consumer exposed Coatings. The barriers will disappear and the segment will get the mass market

# HISTORY & TEAM

## MILESTONES





# CHANGES FOR THE GROWTH OPPORTUNITY ARE VERY STRONG

## Drivers

- **Oil availability** is limited
- The use of **water based products** is growing
- **More regulations** influence the market
- **Consumers' mindset** is changing



# CAN WE PLAY A ROLE?

- Do we comply with market needs?
- Do we have enough to succeed?
- Is the potential large enough?



# DO WE COMPLY WITH MARKET NEEDS?

## Existing portfolio

- **Bio based** resins under the range Secoia™
- **Water based** resins under the range Inokem™

## Technologies

- Well established alkyd chemistry under Secoia™ & Inokem™ ranges
- Hybrid chemistry alkyd-urethane under Inokem™ UR range
- Formaldehyde scavenger, self cross-linking systems and surfactants free systems

## R&D capabilities

- **Innovation:** New, differentiated, performing and cost competitive technologies
- **Collaborative projects development** with customers: Tailors made products (strong differentiation & long term positioning)

# DO WE HAVE ENOUGH TO SUCCEED?

## IP review

➤ 7 Patents, 1 licensing, 4 Trade Marks

### 7 patents

• File N° B2261	Self cross-linking resin	Scope: EU	Expiration: March 2031
• File N° B2616	Formaldehyde scavenger resin	Scope: PCT	Expiration: November 2015
• File N° B2828	Treatment solution for thermoplastic PE	Scope: France	Expiration: June 2034
• File N° B2922	Dispersion with cross-linking process	Scope: France	Expiration: December 2034
• File N° B2923	Copolymer dispersion with cross-linking process	Scope: France	Expiration: December 2034
• File N° B2924	Polymeric system water dispersible	Scope: France	Expiration: December 2034
• File N° B2925	Water resistant & water dispersible polymer	Scope: France	Expiration: December 2034

### 1 exclusive licensing

- INRA

- Pickering technology for water dispersion using nano particles of cellulose
- Scope: Global      Application: Coatings & adhesives

### 4 Trade Marks

• Secoia™

Inokem™

Clean'R™

LeafTech™





# DO WE HAVE ENOUGH TO SUCCEED?



- ☐ Facility on the largest French Chemical cluster
- ☐ Low energy & utility costs
- ☐ 6000MT in 2019

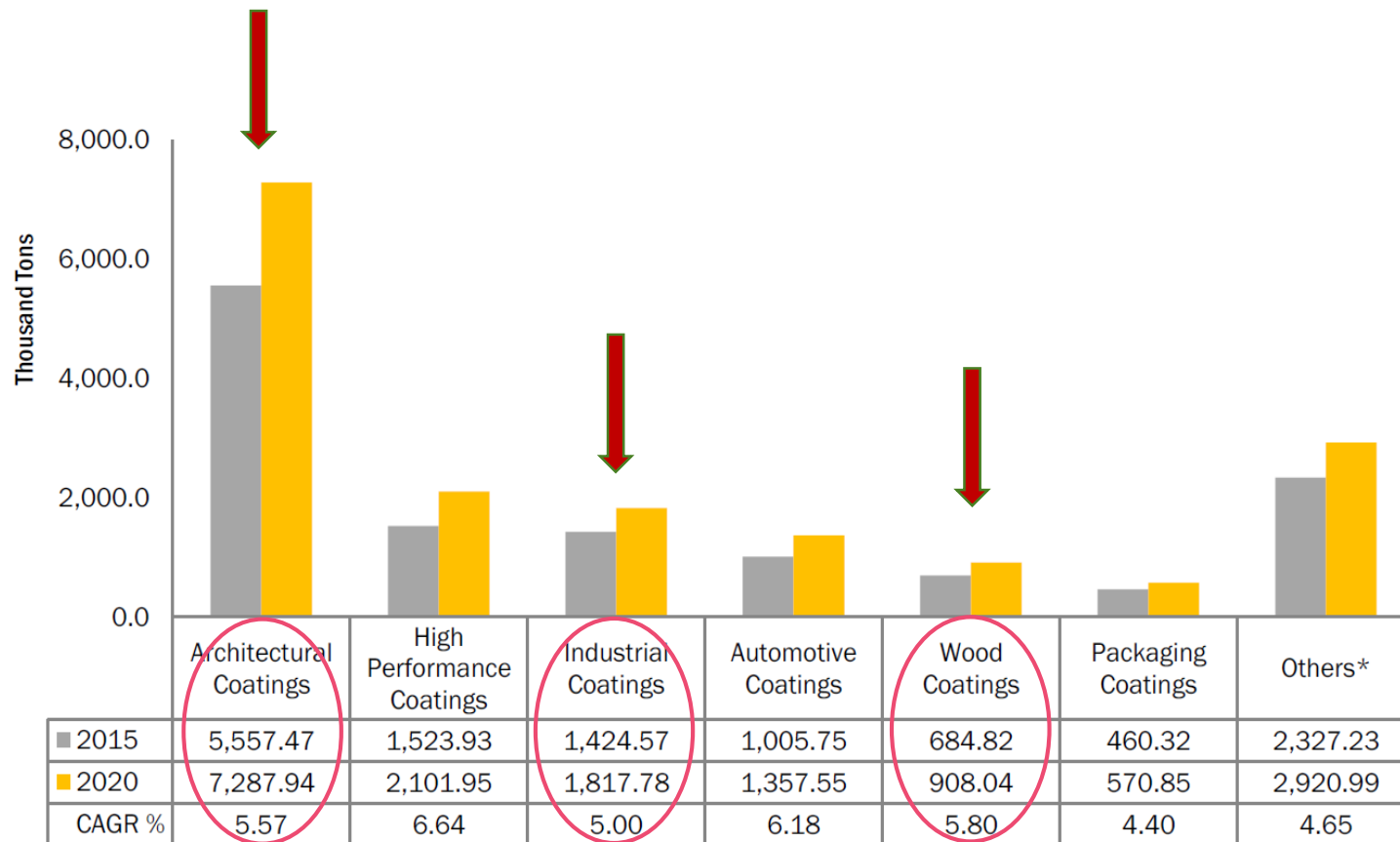
- ☐ Bulk storage capacities
- ☐ Loading-unloading station
- ☐ Asset financed & on site enabling up to **30 000 MT capacity** (4 months to add 10 000mT capacity)

- ☐ **6 PhD's & Engineers** in R&D
- ☐ 2000 synthesis per year
- ☐ Polymers synthesis & paint formulation/application capabilities

# IS THE POTENTIAL LARGE ENOUGH?

## Market segments we focus on

- Total addressable market 7,650 KT in 2015, expected to grow at **10,000KT** in 2020
- **Innovation & differentiation** will make the difference



Other applications of coating resins include lithographic inks, dry offset, and letterpress

Source: Secondary Research and MarketsandMarkets Analysis

# ECOAT'S DECORATIVE COATING PORTFOLIO

## Industry outlook

### Bio based market drivers

Consumers are seeking for responsible consumption

### Limitations in Coatings

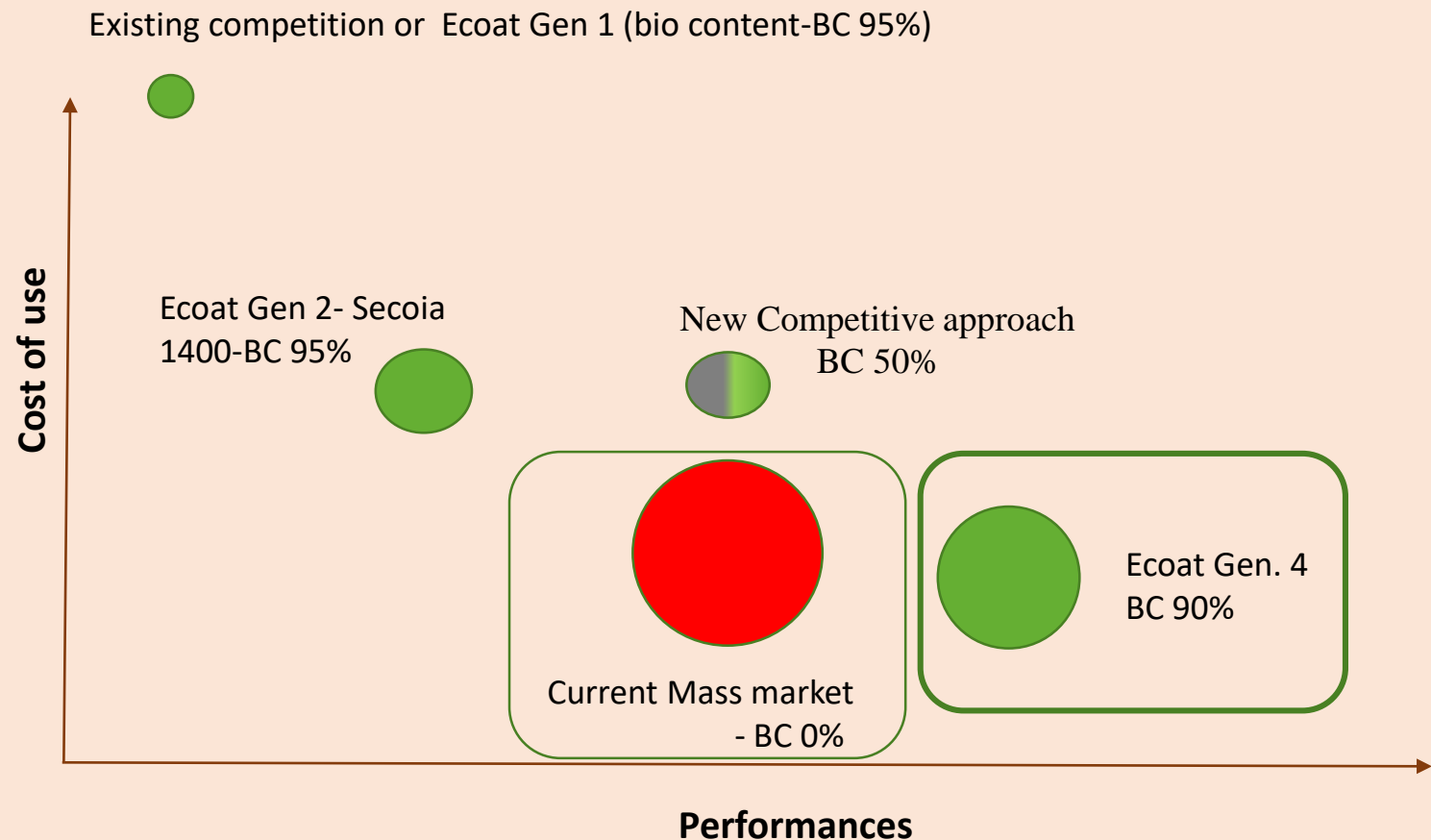
- Cost is the primary limitation
- The performances are lagging but producers have solutions .

## Ecoat Strategy

### Enlarging the segment

- Reduce cost
- Improve performances

## Ecoat positioning versus market



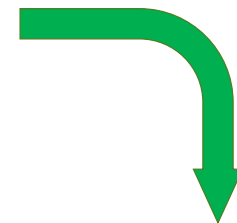




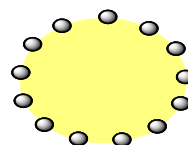
**Raw materials**



**Process**



**85% Biobased alkyd resin**  
High Mw > 150'000g/mol  
Cost competitive



● Solid particle



**Pickering emulsion**  
No yellowing  
Physical drying  
Cost competitive with styrene acrylics



**Paint formulation**  
Cost & Performance competitive





# ECOAT'S METAL COATING PORTFOLIO

Properties	Inokem UR 3301	Inokem UR 3304	Inokem UR 3305	Inokem UR 3306	Inokem UR EXP273
<i>Positioning</i>	<b>DTM</b>	<b>Top Coat</b>	<b>Primer</b>	DTM	DTM
<i>Bio content (%)</i>	53%	50%	52%	<b>61%</b>	50%
<i>Oil length (%)</i>	39	36	39	38	36
<i>Persoz hardness @ 14d (s)</i>	130	150	160	140	<b>180</b>
<i>Pencil hardness @ 7 days</i>	B	HB	HB-H	B	2H
<i>Water immersion resistance ranking</i>	3	2	4	2	1

- All the resins have a OH free content at about 1% that can be used for reacting with isocyanate (2K)
- The product range enables different options in formulations

# ECOAT'S WOOD COATING PORTFOLIO

Properties	Inokem UR 3301	Inokem UR 3304	Inokem UR 3308	Inokem UR EXP273
<b>Positioning</b>	<b>All-round</b>	<b>Top Coat</b>	<b>Wood stain &amp; impregnation</b>	<b>Topcoat</b>
<b>Bio content (%)</b>	53%	50%	69%	50%
<b>Oil length (%)</b>	39	36	<b>57</b>	<b>36</b>
<b>Persoz hardness @ 14d (s)</b>	130	150	90	180
<b>Water immersion resistance ranking</b>	3	2	1	2
<b>Impact resistance (cm)</b>	< 5	< 5	100	< 5 cm

Can be used either alone or in blend with acrylics in wood enabling to combine performances for topcoat.

➤ Excellent compatibility and stability

# ECOAT'S WOOD COATING PORTFOLIO



## Secoia 4487

➤ 87% Long oil alkyd emulsion >99% Bio

Impregnation  
Wood

CONFIDENTIAL

## Secoia 4400

➤ 31% Short oil alkyd emulsion >96% Bio

Wood stain

Wood

Varnish

ECOAT

# GROWTH STRATEGY

## Pillars

### Commercial deployment

- Multiply the number of active customers
- Reinforce the sales network
- Set up a global presence

### Manufacturing

- Process optimization
- Production capacity increase

### Products & Technologies

- Keep focusing on innovation
- Develop disruptive technologies to universalize eco friendly coatings

