

Bio-economy and rural development: the example of Picardie and Champagne-Ardenne (France) with the cluster Industries & Agro-Ressources (IAR)



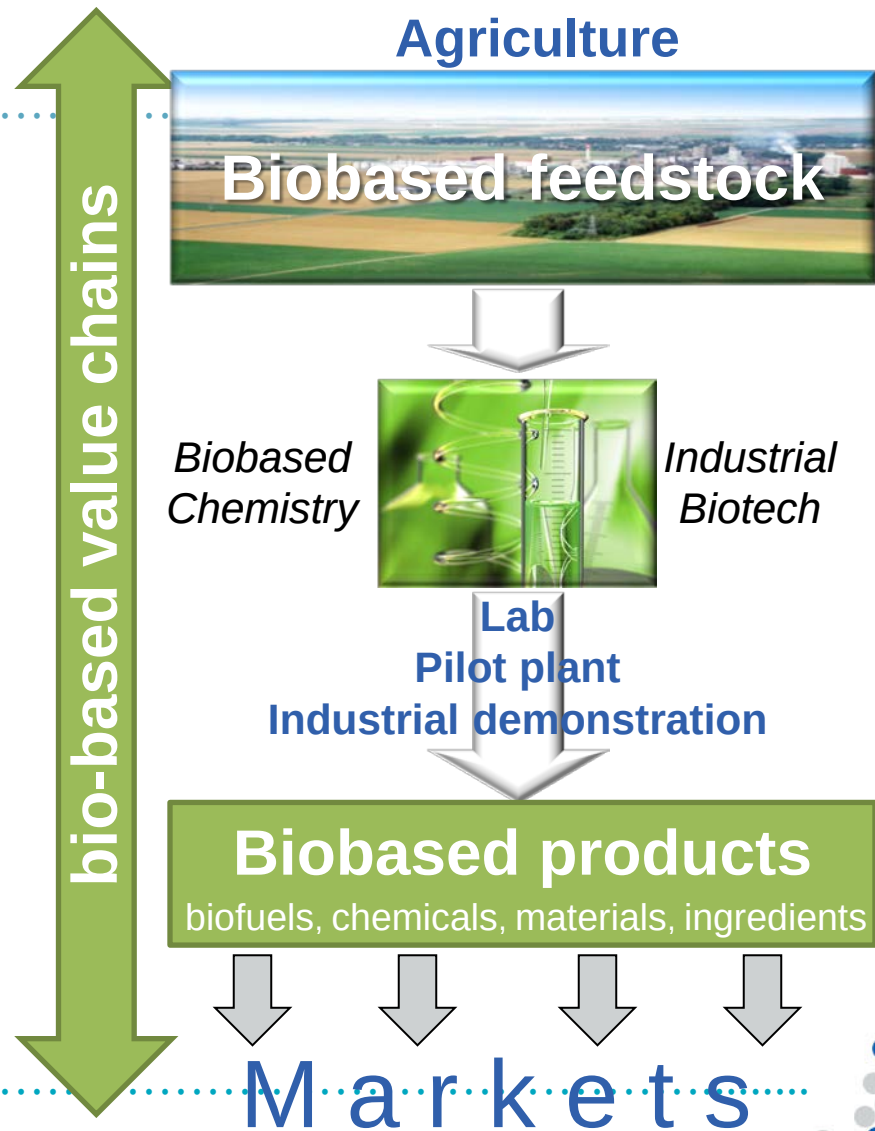
Thierry Stadler

Seminaire Brussels, 13 december 2013

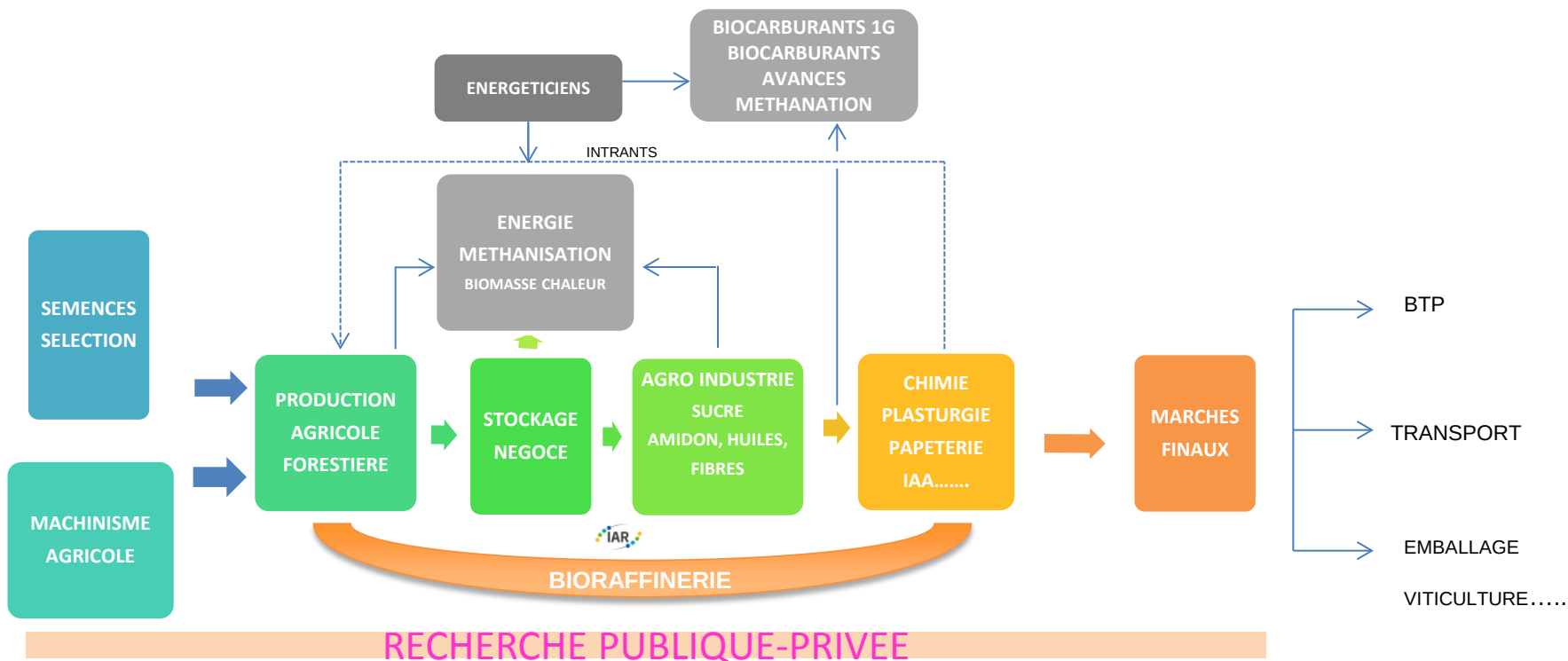
IAR: INDUSTRIES & AGRO-RESSOURCES

**A world class cluster
dedicated to
Bio-based Economy**

- ✓ 245 members
- ✓ > 50% SMEs
- ✓ 135 R&I projects
- ✓ Total R&I budget: **1.25 bn€**
- ✓ Driven by agro-industries and farmers' cooperatives
- ✓ Covering the entire bio-based value chain



AGRORESSOURCES VALUE CHAIN



IAR: INDUSTRIES & AGRO-RESSOURCES

Why in Champagne-Ardenne / Picardie?

ITS AGRICULTURE

3 million ha of arable land

Major producer of sugar beet, wheat, barley, rapeseed, proteaginous crops, potatoes, flax, hemp, ...

ITS AGRO-INDUSTRIES

€ 22.5 bn turnover (IAR's agro-industries members)

€ 2.5 bn invested and **3500 jobs** created in the last 5 years.

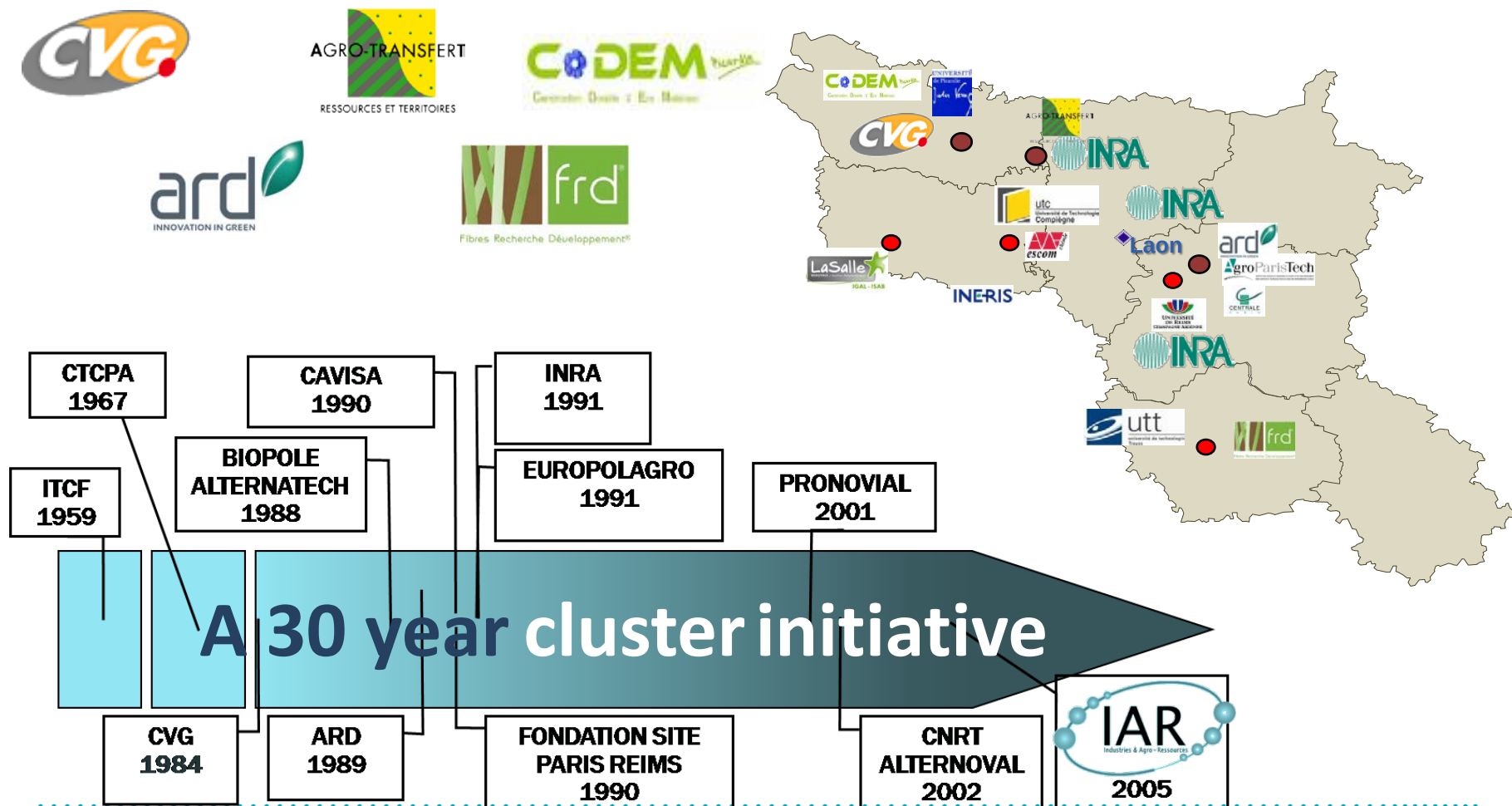
ITS HISTORY

30 years of **active policy** in favor of **Bioeconomy**



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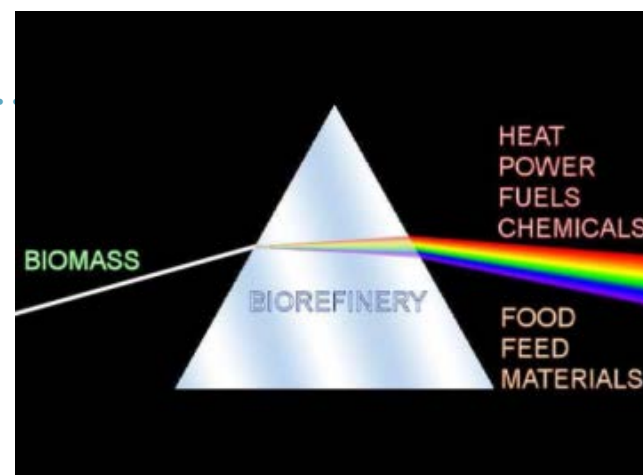
30 years of active regional support to Bioeconomy



JOINT EUROPEAN BIOREFINERY VISION FOR 2030

IEA definition (Task 42)

Biorefining is the sustainable processing of biomass into a spectrum of marketable products & energy.



Sustainable: maximizing economics, minimizing environmental aspects, fossil fuel replacement, socio-economic aspects taken into account

Processing: upstream processing, transformation, fractionation, thermo-chemical and/or biochemical conversion, extraction, separation, downstream processing

Biomass: crops, organic residues, agroresidues, forest residues, wood, aquatic biomass

Products: intermediates and final products, i.e. food, feed, fuels, chemicals and materials

Energy: power, heat, electricity

TARGETED MARKETS

Fossil energies prices increase
New environmental and climatic factors
Agriculture mutations
International competition

Industrial needs

BIOREFINERY – GREEN CHEMISTRY

Biomolecules

Chemical
intermediates, glue,
Lubricants,
surfactants

BioEnergy

Advanced Biofuels
biogaz

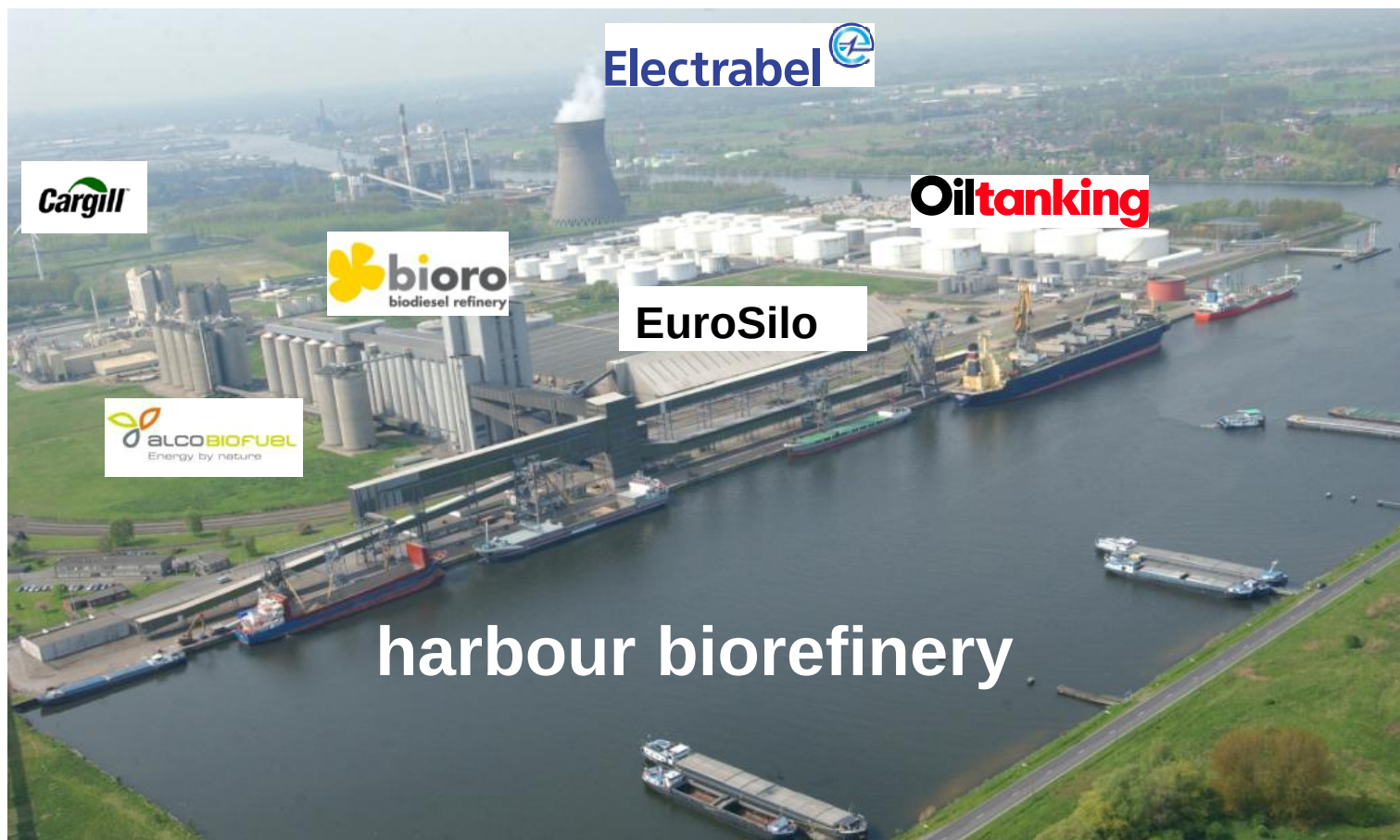
AgroMaterials

Building, Transport,
Packaging

BioIngredients

Food Ingredients,
Processing aids,
nutraceuticals

BIOREFINERIES & BIOMASS SUPPLY: HARBOUR OR RURAL ?



Biorefinery

Rodenhuizedock

Port of Ghent

TERRITORIAL BIOREFINERY

How to create new industrial structures through the bio-economy?



© Champagne-Céréales

Les Sohettes: a model for future rural biorefineries

An Open Innovation Platform B.R.I, towards future biorefinery...

CEBB: TEACHING & R&D



APPLIED R&D



Foundation



agroParisTech

UNIVERSITÉ
DE REIMS
CHAMPAGNE-ARDENNE

CENTRALE
PARIS

NEOMA
BUSINESS SCHOOL

ard
INNOVATION IN GREEN

Bio Démonstration

CRISTAL UNION,
CRISTANOL, VIVESCIA,
SICLAE, CHAMTOR, ARD

B.R.I.
Bio Raffinerie Recherches et Innovations

- A center of excellence in biotech teaching, with leading engineering schools
- An open Biotech platform, from lab-scale to demonstration scale
- A Technology center welcoming new start-ups

With the financial support from :

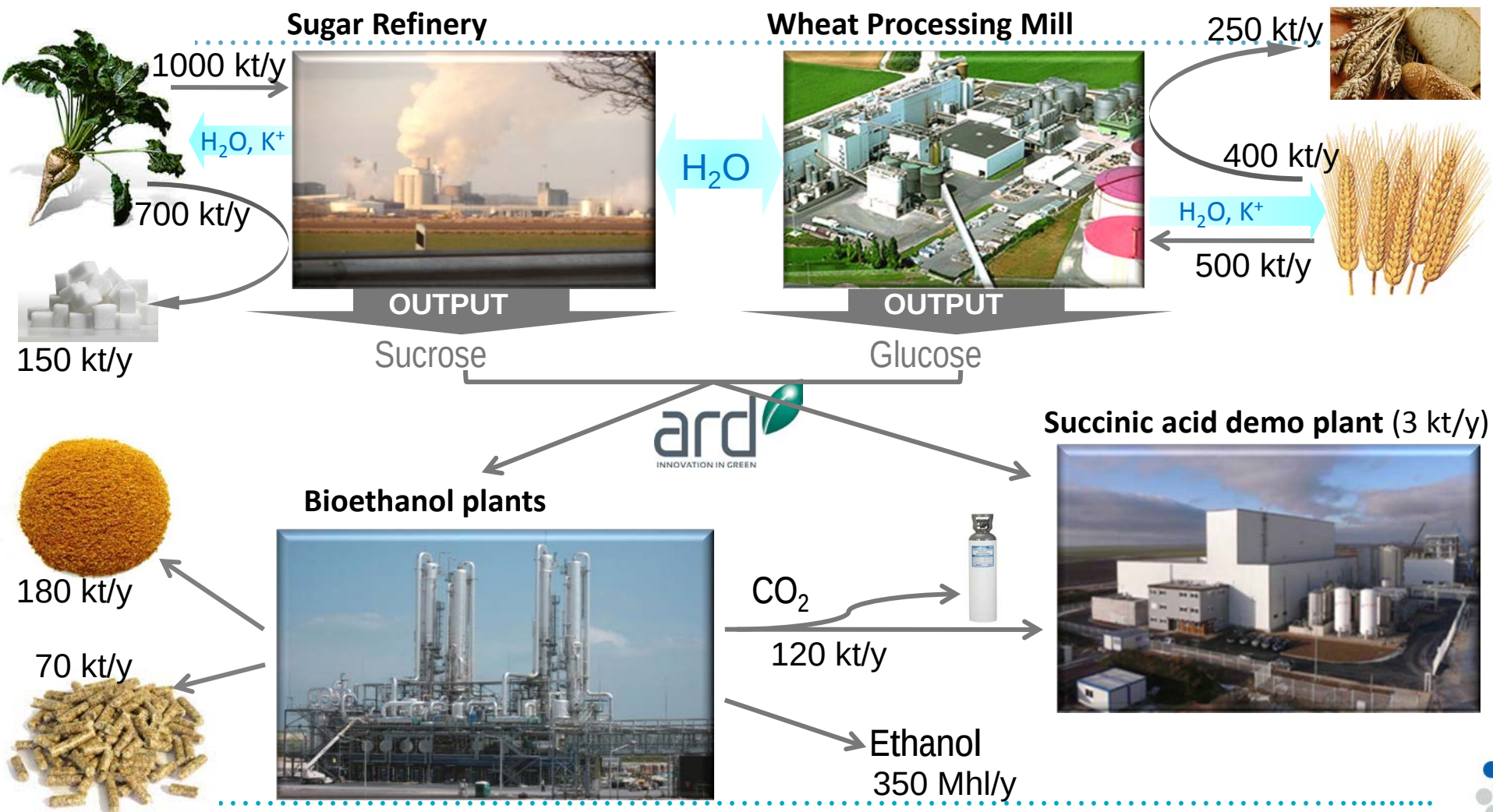


Labellized by :



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How to create new industrial structures through the bio-economy?



AN INNOVATIVE ECOSYSTEM TO VALORISE BIOMASS

OZONIA
IPLB Beauvais



PFI IMPROVE
AMIENS



INRA ESTREE
MONS
Observatoire de
l'environnement



CEBB
Pomacle / Bazancourt



ESCOM
COMPIEGNE



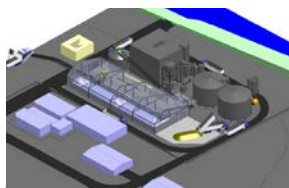
CODEM AMIENS

172.2 millions €
investments

- 291 direct jobs created
- 193 planned



P.I.V.E.R.T.
Compiègne



BIOTFUEL
Compiègne



PLATEFORME
ECOTOXICOLOGIQUE
INERIS Verneuil en
Halatte



OSIRIS
SOUFFLET Nogent
sur Seine



FUTUROL
PROCETHOL 2G
Pomacle /
Bazancourt



B.R.I.
Bazancourt



SINFONI
FRD Troyes

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Key actions to further enable the development of the bio-economy

- Three open Innovation platforms to manage the innovation from field to markets



Oilseed Biorefinery of the Future



P.I.V.E.R.T.



IMPROVE



Plant Proteins : extraction, transformation & valorisation



Industrial Biotechnologies & carbohydrates valorisation



B.R.I.

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How to link up and develop synergies between RIS3 and the european initiatives and plans on bioeconomy?

Bio-Based Industries Initiative



IAR is a founding partner of the
 Biobased Industries Consortium

Board member, representing the
SME interests within BIC