



CA' società agricola italiana  
a scopo sociale  
COLONNA

NOBILE TRADIZIONE  
di Romagna



# SUSTAINABLE AGRI-FOOD VALUE CHAIN

**Cà Colonna  
innovative  
farming  
SME**

**Cà Colonna Ltd** – innovative small enterprise according to the Italian Law DL 179/2012 art.29; DL 3/2015 art.4, legge dalla L. 33/2015: DM Ministry of Economy 7 of May 2019

**Business model:** integrated and sustainable agro-food chain. Objective: to integrate agro and food - agriculture on the plate

**Innovation ecosystem in agriculture**, partner of numerous international organizations on innovation

**Certifications:** INPS Quality Agricultural Work Network; EU organic production (CB IT-BIO-004I, operator code 47170); disciplinary of social farming; Artusi's Foundation official supplier; Global Gap-GRASP; I.F.S.

**Land** (40 Ha) + network of farms. Agronomic investments for landscaping, precise drip-water irrigation. Primary production in the field in entirely organic certified. Precision agriculture technologies: transplanting with biodegradable plating and satellite control; carbon farming pilot farm,

**Warehouse** with fresh chain for first handling of products, packinghouse, certified GlobalGap-GRASP and IFS

**Biodiversity.** Recovery and reintroduction (field herbs / alimurgic herbs) in agro-food production; vermicompost production (Reg. (CE) n ° 889/2008 and Reg. (UE) 2018/1584)

**Social agriculture.** Agricultural-social supply chain organization with social cooperatives and agreements with Municipal Social Services for the job placement of people with fragilities; social farming protocol;

**Processing-** development of food products from agricultural raw materials: a) traditional Artusi's recipes for vegetable gourmet catering in the world (linking culture and crops) from antique grains, pulses and alimurgic herbs; b) agri-cosmetics from vegetables biodiversity

**Innovation:** European patent for red pear varieties filed (EU agency: Community Plant Variety Office -CPVO file n.2019 / 2312); patent for a sweet ginger (CPVO 2020-1431); selections of evolutionary populations of alimurgic herbs

**Marketing:** AlmaverdeBio, AgritaliaBio (EsselungaBio packer); Lidl, REWE, Famila supermarket;

**Promotion:** Casa Artusi, Italian Ministry of Foreign Affairs-Week of Italian Cuisine in the World

**Assets  
completed**

## Value-chain in Africa

**Agro-park in Africa:** Democratic Republic of Congo ::

- farm of 4,000 HA; Social farming value chain,
- Agro-park with processing and post-harvest plants (end of work October 2020). Finance: US \$ 11.6 million grant from the World Bank

**E4Impact Foundation:** development of counter-season organic productions to give continuity to the range for European markets (Eastern Africa: Kenya etc.)

**Senegal:** contract with the Foreign Ministry-AICS to organize the agri-food chain in Senegal

## Awards

**GEO Rai3** on December 12<sup>th</sup>, 2018

**PSR Emilia-Romagna Region:** financing of the social agriculture supply chain project

**National Rural Network:** 10 best social farming experiences year 2019

**Amsterdam 2019 Sustainable Food Awards** - winner in the Sustainability Leadership award category;

**Amsterdam 2020 Sustainable Food Awards:** finalist

**Columbia University (USA) 2019:** International Conference on Sustainable Development (ICSD) - Good Practices in Sustainable Food Production

# PLANT INNOVATION IN THE ITALIAN TRADITION: BACK TO TRADITIONAL OLD RECIPES

2017



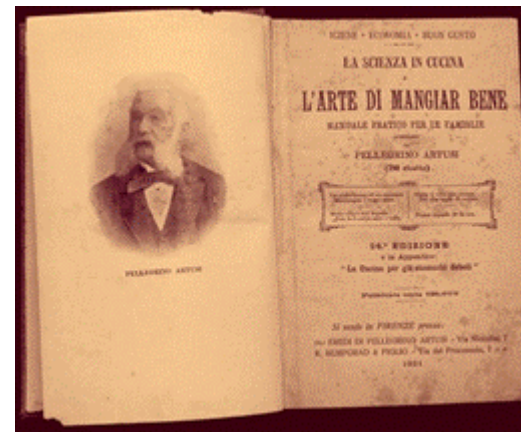
Integrate plant biodiversity into the agri-food value chain: reproduce the ancient Italian recipes with the plant biodiversity of the territory

1767



Foraging or alimurgic herbs: Alimurgic herbs or Herbs for survival: .The Florentine medical doctor Giovanni Targioni-Tozzetti back to 1767 was the first publication “De Alimentari urgentia” dealing with the use of vegetables to eat during famines. Thus, ethnobotany is the study of a region's plants and their practical uses through the traditional knowledge of a local culture and people

1891

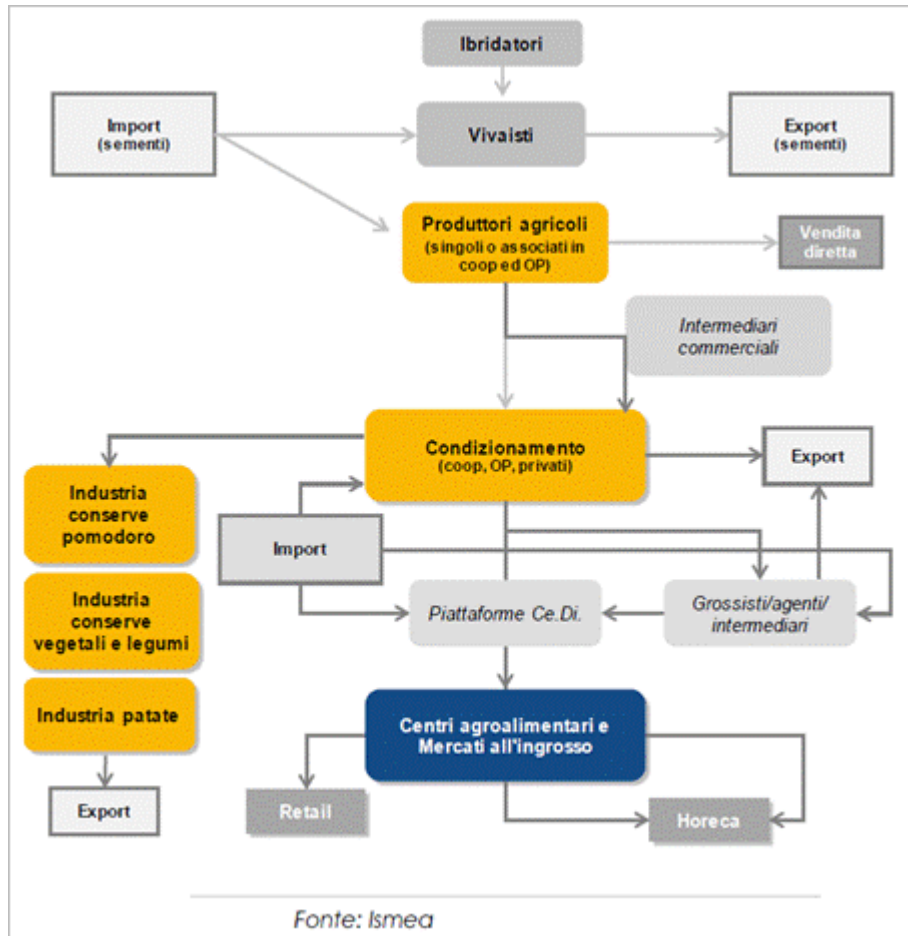


Pellegrino Artusi, acknowledged father of modern Italian cookery who did what he could to spread the use of the Italian language, was born in Forlimpopoli on 4th August 1820. The book “Science in the Kitchen and the Art of Eating Well» was published in 1891

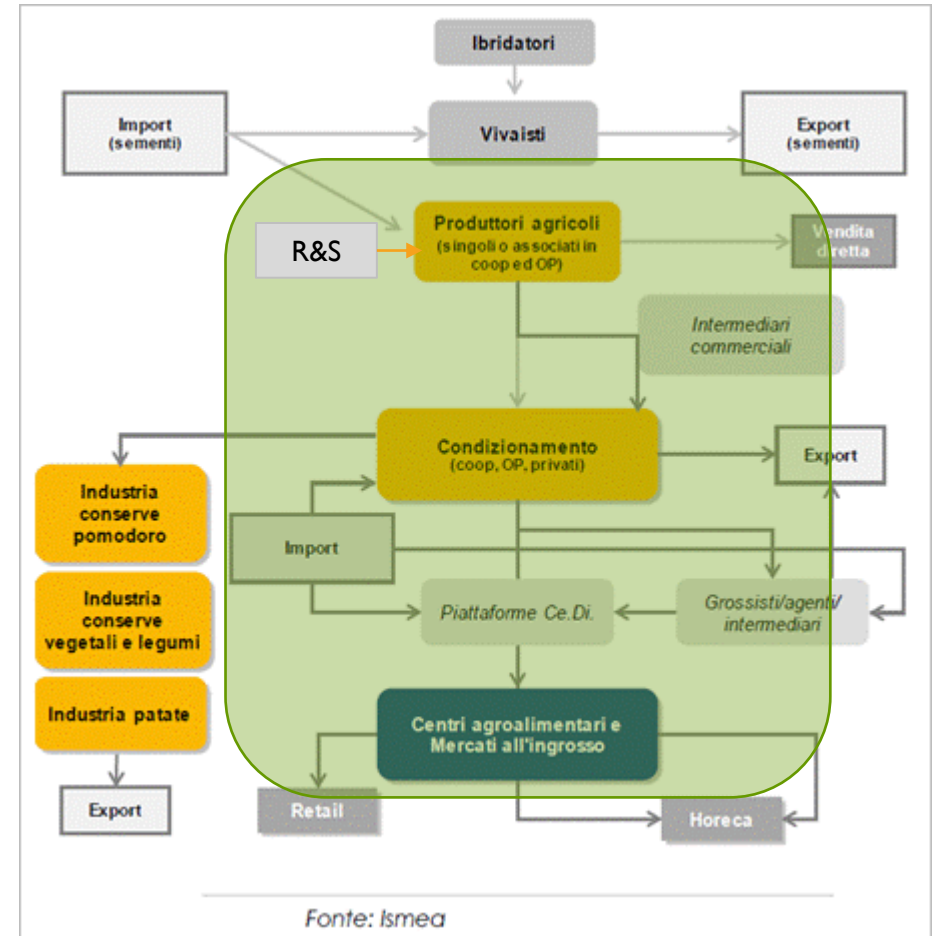
# BUSINESS MODEL OF CÀ COLONNA:

## ORGANIZATION OF INTEGRATED VALUE-CHAIN IN ORGANIC VEGETABLES PRODUCTS

### Italian vegetale value-chain



### Cà Colonna value-chain

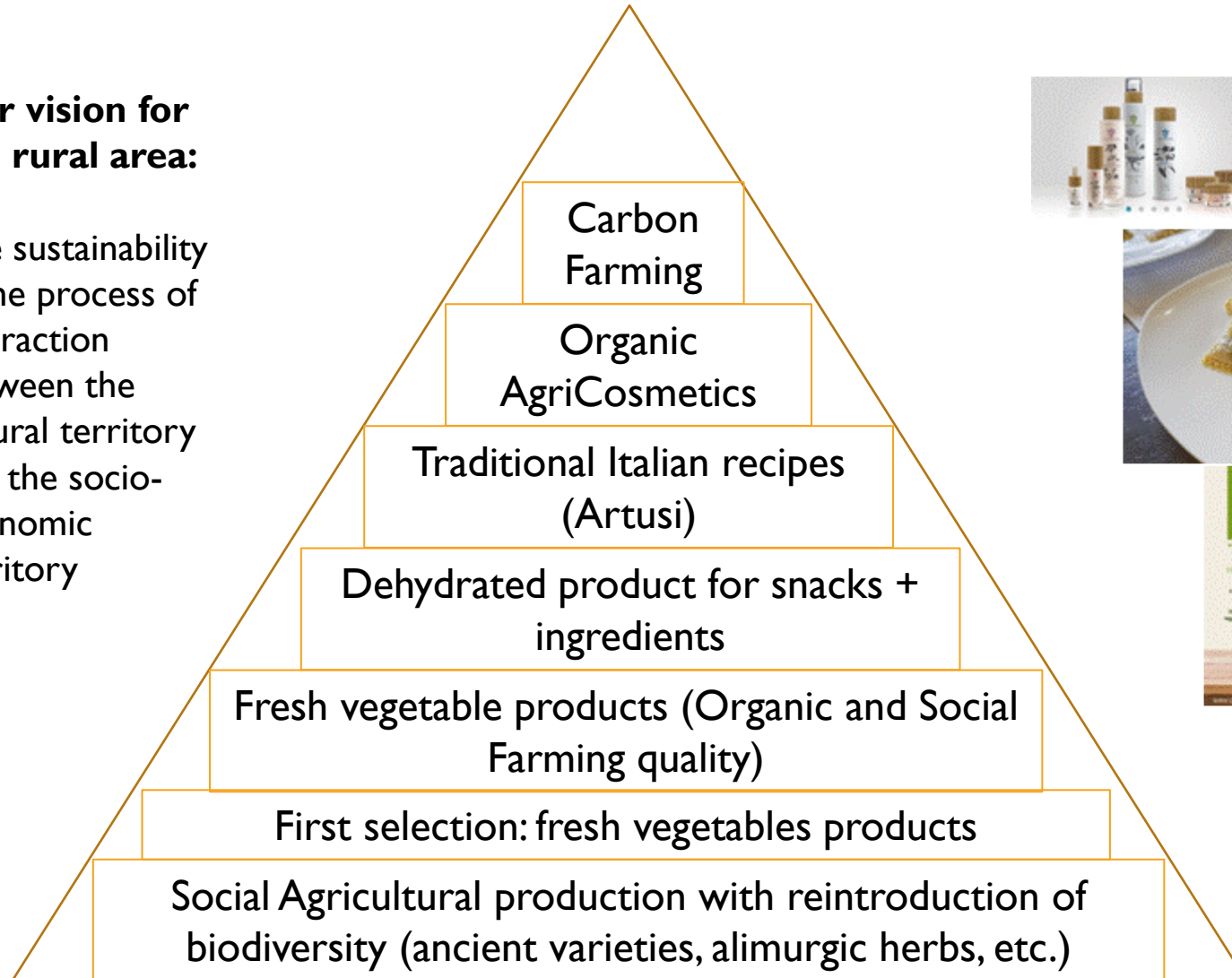




# BUSINESS MODEL: SUSTAINABLE VALUE-CHAIN

## Our vision for the rural area:

The sustainability  
is the process of  
interaction  
between the  
natural territory  
and the socio-  
economic  
territory



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# ECOSYSTEM OF INNOVATION

Cà Colonna Società agricola s.r.l. –

- From 2019: innovative SME

Partner of:

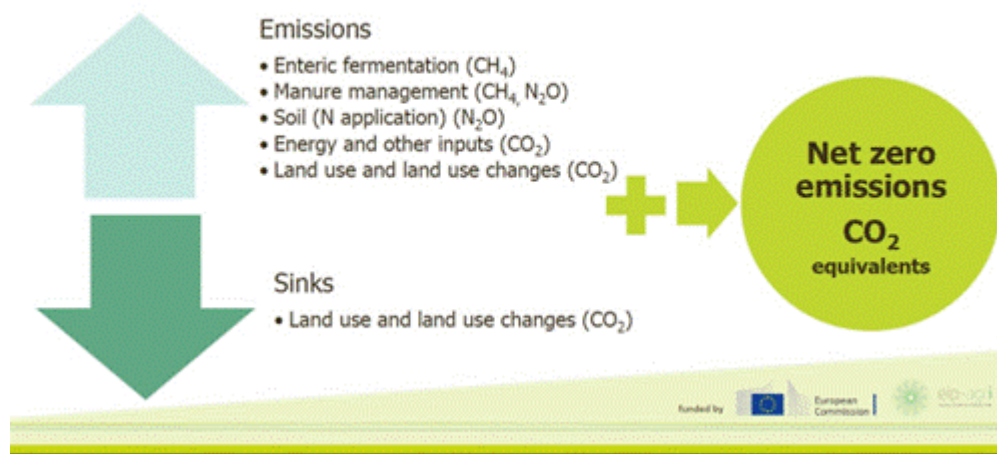
- IFAMA – International Food and Agribusiness Management Association ([www.ifama.org](http://www.ifama.org))
- Business@Biodiversity (Commissione Europea) [https://green-business.ec.europa.eu/business-biodiversity/about\\_en](https://green-business.ec.europa.eu/business-biodiversity/about_en)
- Global Forum of Agricultural Reserch – GFAR (FAO: <http://www.gfar.net/>)
- Carta di Cancun (2016) “Business and Biodiversity Pledge” del Segretariato della Convention CBD Convention on Biological Diversity (<https://www.cbd.int/business/signatories-and-supporters.shtml>)
- Forum Nazionale Agricoltura Sociale (<http://www.forumagricolturasociale.it/>)
- CeDRA Centro Divulgazione delle Ricerche Agroalimentari (Dip.Tecnologie Alimentari Università di Bologna) <http://www.cedradivulgazione.it/>
- Accademia Nazionale di Agricoltura <http://www.accademia-agricoltura.it/>
- BRESOV: Breeding for Resilient, Efficient and Sustainable Organic Vegetable production (<https://bresov.eu/>)
- LIFE Carbon Farming Scheme project (<https://carbonaction.org/en/life-carbon-farming-scheme-2/>)
- Disciplinare filiera agricola artusiana – fornitore ufficiale di CasArtusi (<http://www.casartusi.it/it/societa-trasparente/>)
- Fondazione promotrice della cucina italiana a Patrimonio Unesco (<https://cultura.gov.it/comunicato/24360#:~:text=Il%20Ministero%20dell%E2%80%99agricoltura%2C%20della%20sovranit%C3%A0%20alimentare%20e%20delle,alla%20Lista%20Rappresentativa%20del%20Patrimonio%20Culturale%20Immateriale%20dell%E2%80%99Umanit%C3%A0.>)
- FAO global soil partnetship: <https://www.fao.org/global-soil-partnership/en/>
- EU Biodiversa+: <https://www.biodiversa.eu/>
- E4Impact foundation: <https://e4impact.org/it/>



# AGRONOMIC INNOVATION: CARBON FARMING

- Objectives:
  - assess the agricultural contribution to soil carbon sequestration;
  - collect the elements of sustainability to support ecological certification and the emission of carbon credits
- Results expected:
  - Environmental footprints of products: carbon and water footprint.
    - interventions to reduce the carbon footprint during the cultivation, processing and transformation of products: good mitigation practices.
    - variations of tons of CO<sub>2</sub> eq, of the lower emissions obtainable by applying alternative production techniques
    - Strategy for ecological product certification and carbon credit emission
- Results achieved by Cà Colonna:
  - **Organic Carbon fixed in the soil: from 1% in 2016 to 3.5% in 2020**
- Reference:
  - European Commission - LIFE Carbon Farming Scheme: [https://ec.europa.eu/clima/content/carbon-farming\\_en#](https://ec.europa.eu/clima/content/carbon-farming_en#)

## What is C neutral agriculture?





# PATENTS ON VEGETABLE INNOVATION

- Cultivar of red pear (*EU patent applied*)
- Sweet ginger for salads (*EU patent applied*)



## Registers list

Register	ArrivalDate	AppDate	ST	Gr N°	GR Date	Denomination	Specie	Gr Reference	Applicant a) - Representative b) - Breeder c)
20192312	20/09/2019		U			Terry Red	<i>Pyrus communis</i> L.	F ca colonna srl	a) 10447 Ca' Colonna S.r.l. c) 10447 Ca' Colonna S.r.l.

End of list



R-form

Ca' Colonna S.r.l.  
Via Cervese, 145  
IT - 47122 Forlì (FC)  
ITALY

Angers, 18/06/2020

O/Ref: 20200057882

Dear Mr. Bagnara,

The Community Plant Variety Office herewith acknowledges receipt of your application for a Community plant variety right in respect of a plant variety with the following provisional designation:

Proposed denomination:  
Provisional designation:  
Botanical taxon:  
File number of the application:  
Online application n°:

'Ginger sweet'  
kongo 1  
*Zingiber officinale* Roscoe  
2020/1431  
A202001783

# VEGETABLE INNOVATION: SELECTIONS OF PHYTO-ALIMURGIC HERBS



**Dandelion/Wild chicory**  
(*Cichorium intybus*)



**Borage**  
(*Borago officinalis*)



**Brownie**  
(*Papaver rhoeas*)

- Landraces for Healthy Food Systems:
  - ancient grains and pulses
  - Breeding technique: evolutionary population
- phyto-alimurgic herbs: edible and nutraceutical wild plants
- Mainstream Agrobiodiversity in Sustainable Agro-Food Systems



# AWARDS

Filiera agro-alimentare integrata e sostenibile a  
GEO

11 dicembre 2018



[https://www.youtube.com/watch?v=\\_pI5Bz5FSFk](https://www.youtube.com/watch?v=_pI5Bz5FSFk)

<https://www.reterurale.it/flex/cm/pages/ServeLOB.php/L/IT/IDPagina/19875>

SUSTAINABLE  
**FOOD**  
AWARDS  
**2019**

Amsterdam 2019  
Sustainable Food  
Awards

Winner of  
category:  
Sustainability  
Leadership



<http://www.sfawards.com/>

RETERURALE  
NAZIONALE  
20142020

**mipaft**  
ministero delle politiche agricole  
alimentari, forestali e del turismo



National Rural Network: 10 best experiences in  
promoting and supporting the dissemination of  
social agriculture in 2019

# PRIMARY ORGANIC PRODUCTION



	2021												2022
	Gen / Jan	Feb	Mar	Apr	Mag / may	Giug / jun	Lugl / jul	Ago / aug	Sett / sept	Ott / oct	Nov	Dic / dec	MAR / mar
Fava / broad bean				█	█								
Cardo / thistle	█	█								█	█	█	
Fagiolini / green beans						█	█	█	█	█	█		
Melone / melon							█	█					
Zucca / pumpkin	█	█	█							█	█	█	
Zucchine / zucchini					█	█	█	█	█	█	█		
Sedano / celery	█	█	█	█	█	█	█	█	█	█	█	█	
Cavolfiore / cauliflower	█	█		█						█	█	█	
Finocchio / fennel	█	█	█	█	█	█			█	█	█	█	
Broccoli / broccoli	█	█	█	█						█	█	█	
Verze / cabbage	█	█	█							█	█	█	
	█	█	█							█	█	█	

- Cultivated area: 40 HA certified organic- Processing, packaging and fresh chain center (GlobalGab, GRASP, IFS)
- Possibility of extending the supply chain in Africa with direct production to integrate the range (January-May) and exotic products
- Possibility of extending the Italian production on a larger directly managed certified organic surface
- Currently only fresh products are marketed; the organic processed products have been developed and tested but to be introduced on the national and foreign markets on the channels already open





# TRADITIONAL ITALIAN RECIPES: CASA ARTUSI

Artusi recipe line through agricultural product chains:

- First products: stuffed pasta with flours from ancient grains and wild herbs (with social cooperative); sauces and toppings
- In development: other Artusi recipes
- Under development: Traditional Agro-food Products (PAT) Mipaaf - Legislative Decree No. 173 of 30/04/1998



RECIPE ARTUSI N.98 RAVIOLI FOR THE USE OF ROMAGNA: WITH FLOUR OF ANCIENT GRAINS AND ALIMURGIC HERBS



CASA/ARTUSI

[www.casartusi.it](http://www.casartusi.it)

[www.facebook.com/CasaArtusi/](https://www.facebook.com/CasaArtusi/)

[www.youtube.com/user/ArtusiCento](https://www.youtube.com/user/ArtusiCento)



# MANAGEMENT

## The Board of directors:



- Maria Teresa Mengarelli: president. Education: diploma of agricultural technician (1981); Laurea in Agricultural Sciences University of Bologna (1989); Intensive American Language Centre (IALC), Washington State University - USA (1990-91). Professional experiences: 1992-1994 researcher at Centro Studio Ricerca - Analisi Economico Sociali Soc.Coop.a.R.L.. Since 1993 agricultural entrepreneur. Since 2014 president of the agricultural company Cà Colonna spa..



- Gabriele Bagnara - Agricultural entrepreneur since 1980. Diploma of agricultural agriculture entrepreneur. President of Bagnara&Sintoni agricultural company. Partner-funder of Cà Colonna.



- Gian Luca Bagnara. Business angels. Economist specialized in agribusiness and economics of territory 25 years of international experiences. Certified Management Consultant according to the ICMCI protocol. Education: Ph.D in Economics of Territory (University of Padova - Italy), M.A. agricultural economics (Washington State University - USA); Laurea in agricultural sciences (University of Bologna - Italy). <https://www.linkedin.com/in/gian-luca-bagnara-b35aa3a/>

- Operational management in the field, the activity is assisted by::

- Edoardo Bagnara (28 years old): grew up on the family farm, since 2017 technological coadjutant. Classical maturity, student at the University of Bologna Degree course in Statistical Sciences address of economics and business. Professional training:: BootCamp of IntesaSanpaolo FoodTech StartUp Initiative 2018.



- Carlo Bagnara (26 years old): grew up on the family farm and since 2017 technological coadjutant. Classical maturity, student at the University of Bologna, School of Agriculture - Degree in Food Technology. Professional training:: BootCamp of IntesaSanpaolo FoodTech StartUp Initiative 2018.

# BUSINESS ORGANIZATION

## Agricultural operating headquarters: farm Cà Colonna

- Agricultural planning: board of directors of Cà Colonna



## Casa Artusi value-chain

- Quality test laboratory and Scientific Committee: CasArtusi
- Council of CasArtusi: supervisor of the quality of management
- CasArtusi Scientific Committee: address / steering committee to combine cultural initiatives and quality economic proposals



**Social Farming:** social cooperatives in a business network and coordination with Consorzio Solidarietà Sociale ([www.cssforli.it](http://www.cssforli.it)) and Consorzio il Solco ([www.solcoravenna.it](http://www.solcoravenna.it)) for the involvement of disadvantaged workers (Social agriculture law 9 August 2015 n.208)

- Protocol with the Municipality of Ravenna
- Framework agreement DLgs 102/2005 with Agricultural Associations and Cooperatives and published by the Ministry for Agricultural Policies
- Social actions:
  - Each cooperative manages its disadvantaged staff in its own land and laboratories with the economic coordination of Cà Colonna
  - The most suitable staff then carries out operational activities also at the land of Cà Colonna



Rete del lavoro  
agricolo di qualità

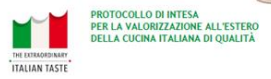


# MARKETING: PARTNER OF



**Almaverde®**  
*bio*

*Turnover of 100 millions Euro just in organic*



- Agritalia: platform of EsselungaBio
- Consorzio BIA: platform for Coop
- BRIO: Agrintesa group, brand Alce Nero
- LiDL
- Milan wholesaler for second choice product
- Italian government program for promotion abroad
- GreenYard - REWE: Penny + BILLA

# MARKETING

The Economist

## WHICH COUNTRIES DOMINATE THE WORLD'S DINNER TABLES?

### Unbalanced diets

Cuisine "net exports", 2017, \$bn



Source: "Dining out as cultural trade" by Joel Waldfogel, Journal of Cultural Economics (2019)

# THE PROJECTS IN AFRICA

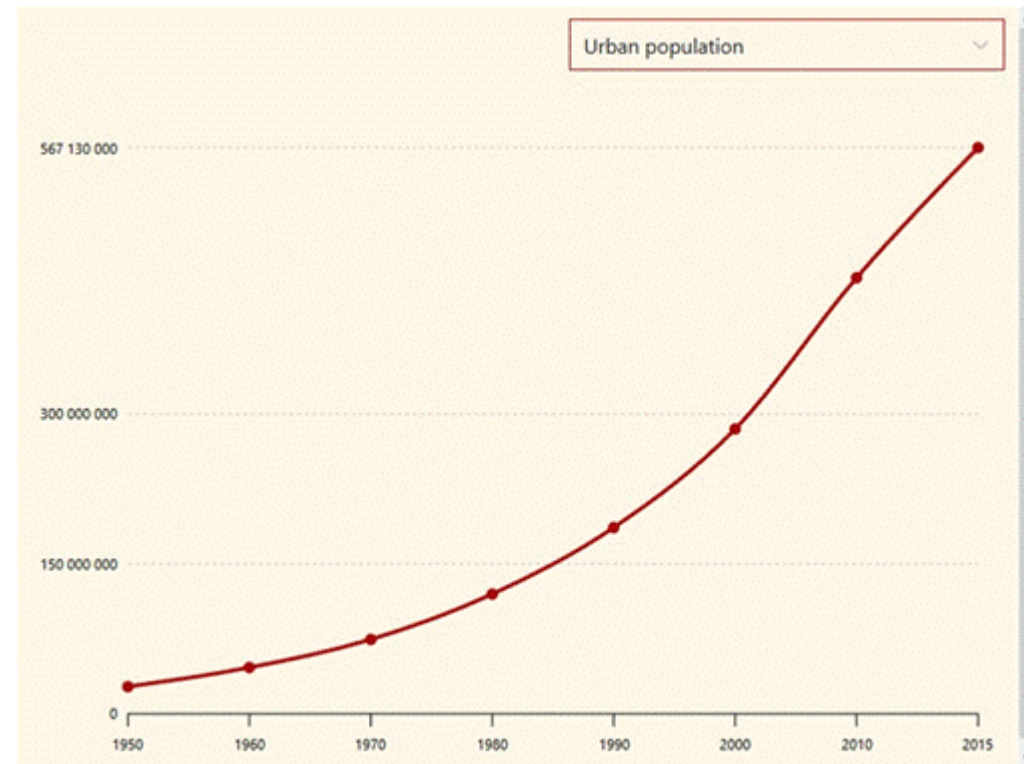
## TEXERE





# FOOD IN-SECURITY IN AFRICA

- More than half of the world's population lives in towns and cities: up to 75% by 2050 (UN, 2014)
  - most of this urban growth is concentrated in Africa and Asia
- More than half of the Sub-Saharan African (SSA) population in urban areas by 2050
  - increasing levels of food insecurity and malnutrition in a context of high vulnerability to climate change
- Urban food issues: critical dimension of integrated urban-rural development. Agriculture is not connected to the cities and the agricultural land is little cultivated
  - New paradigm of food security: from the availability of agricultural products to access to food
- ***The challenge is to organize the production in the supply chain integrated with the post-harvest***



# CONGO RDC

WEST GROWTH POLICY DEVELOPMENT  
PROJECT-PDPC  
(DON N. H860-ZR. WORLD BANK)  
CONSTRUCTION OF AGROINDUSTRIAL  
PLATFORM (KONGO-CENTRAL PROVINCE)

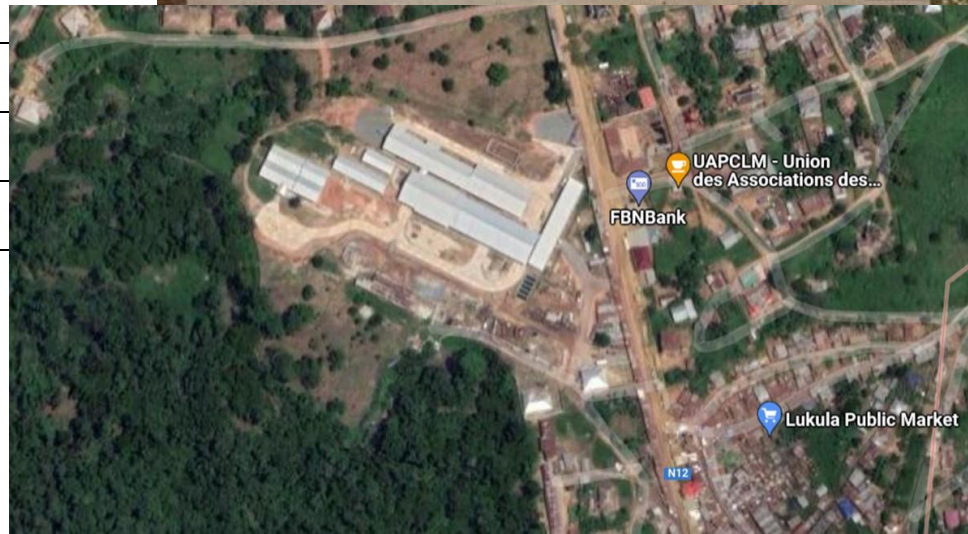


- Democratic Republic of Congo: agricultural potential but lacking in the organization of the integrated value chain between agriculture and the final market (Kinshasa). Traditional agricultural territory but growing urban system: imports of food products.
- Innovative project: the Italian partnership is responsible for the design of the plant, construction, organization and management of the entire agri-food chain.
- Processing capacity / day: 35 Tons of cassava; 35 tons of vegetable oil; and production of fortified flours. Constructed area: 9,000 m<sup>2</sup>
- Production area: 8,000 Ha managed by the villages; 4,000 Ha managed directly
- Finance: World Bank grant of 11.6 million dollars for the implementation of the agro-park.
- Completion of works: October 2020
- Markets:
  - Internal market: urban area of Kinshasa
  - EU market: organic exotic fruit and vegetables in the agricultural supply chain

# AGRO-PARK IN CONGO



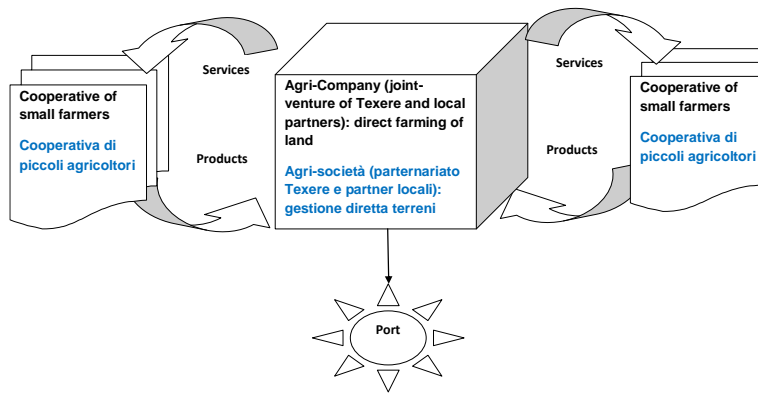
	Governance: relationship between private stakeholders and Public Institutions			
Private business	<b>Business Development Services:</b> Crops and vegetables post-harvest for grains	<b>Business Development Services:</b> Fortified flour	<b>Business Development Services:</b> .....	<b>Business Development Services:</b> .....
	Public-private partnerships			
Quality control and lab for food safety				
Extension service and technical services				
nursery and experimental fields for varieties				
Animal feeds: storage for grains, milling, logistics				
Market Information Services				
Facilities: energy power; water and waste management				



<https://www.freshplaza.it/article/9277152/tecnologie-italiane-per-l-agroparco-di-lukula/>

# CONGO: LAND IN MUANDA

## Organization: the relationship with the territory



**The Strategy:**  
an integrated supply chain between farmers





# VALUE-CHAIN IN SENEGAL



Ministero degli Affari Esteri  
e della Cooperazione Internazionale

## CONTRATTO

per la disciplina dell'esecuzione dell'iniziativa

“La filiera agro-alimentare internazionale sostenibile: dall'Emilia Romagna al Senegal” - AID  
012313/01/01





# CONTACTS

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**Web:** [www.cacolonna.it](http://www.cacolonna.it)

**Facebook:** [Ca' Colonna](#)

**Instagram:** [ca\\_colonna](#)

**YouTube:** [Ca Colonna](#)

**LinkedIn:** [Ca Colonna](#)

