



REGIONE DEL VENETO

24 SETTEMBRE 2021 - Ore 9:00

VILLA CONTARINI

PIAZZOLA SUL BRENTA

PADOVA - ITALY

Primo Workshop Internazionale*



“La resilienza del settore lattiero-caseario in Europa e in Italia, il ruolo dell’innovazione”

* L'evento è organizzato in collaborazione con il CRPA nell'ambito del progetto europeo Resilience For Dairy (R4D). The workshop is organised in collaboration with CRPA and the European Project Resilience For Dairy R4D.



Moderatore: Nicola Castellani
giornalista Informatore Agrario





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9:00: Apertura dei lavori. Saluti autorità.

9:15: Introduzione del contesto generale e del progetto R4D - Valerie Brocard, Alberto Menghi - CRPA.

9:30: Innovazione genetica: Progetto Pro Caseus. Francesco Cobalchini di Intermizoo.



9:45: Interventi dei Produttori: Saverio Delsante (ITA); Giorgio Dellai (ITA); Jörg Riecken (GER); Valerie Josset (FRA); Dominique Madec (FRA).



11:00: Tavola rotonda: il punto di vista dei portatori di interessi sulla resilienza e sulle innovazioni



Alberto Menghi (Italia - CRPA);
Marjia Klopčič (Slovenia - Lubiana University);
Ralf Loges (Germania - Kiel University);
Valerie Brocard (Francia - Institute de L’elevage);
Anais Kernaleguen (Francia - CEDAPA);
Abele Kuipers (Olanda - Wageningen University);
Stefano Berni (Italia - Consorzio Grana Padano).

12:30: Q&A e chiusura del Workshop.



A seguire buffet con prodotti del territorio.

Con la partecipazione di:





Alberto Menghi
CRPA

Country



DAIRY COUNTRY SITUATION

- Italian milk production (12,6 million tons 2020 + 20% in the last 16 years) still net importer.
- High level of added value products (cheese) 41 of Designation Origin (PDO) cheeses.
- In 1990 we recorded 200.000 dairy farms and only 31200 in 2018 (-85%)
- milk price is stable ranging between 0,32 and 0,42 € since many years. But there is not an average price, every dairy can pay a different price.
- All main national dairy industries in Italy are collecting less than 10% of milk (Granarolo, Lactalis, etc.)

- ...



Name of the farmer and/or the farm



Should we talk about RESILIENCE or SURVIVORS?

Why European Union is starting to talk about resilience?

In the past 20 years the main EU word in the dairy sector was “sustainability”

Probably because the number of dairy farmers is dramatically dropping all over Europe (only 31000 left in Italy) and we should use the word “survivors” , but probably it is too strong so better use resilience

How the Italian resilient farmers managed to survive ?



Name of the farmer and/or the farm



Main strategies used for a “resilient” system

Two main farm strategies are developed in Italy to be resilient:

- 1) Those who deliver to a private buyer : they are always under price pressure, they try to reduce costs by economic of scale. Increasing milk production, increasing barn size and farm productivity. This model is very common in Lombardia region (+37% increased production in the last 16 years)
- 2) Those who are members of cooperative, they are under cooperative requirements pressure, to produce specific products and elaborate a resilient strategy. This model is more common in Regions like Veneto (+3% in the last 16 years) and Emilia Romagna (+17% in the last 16 years)
- 3) Mixed systems



Name of the farmer and/or the farm



The Italian survivors (farmers) will face a number of potential shocks and threats

- 1) Increase of energy costs > feed costs (cut in margins)**
- 2) Increasing of legislations and requirements (society, coops, retailers..)**
- 3) Managing the increasing level of available technologies**
- 4) Lack of human resources (qualified)**
- 5) Climate changes and lack in water availability**
- 6) Change in consumers behaviour towards animal products**

Projects like R4D aims to find and share the best practice and best solution among farmers and stakeholders to face the coming years to be «resilient» a hopefully a bit more than resilient

Resilience for Dairy (R4D) has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101000770



R4D Resilience 4 Dairy

1st January 2021 – 31st December 2023



Valérie BROCARD, Idele (coordinator) - FR



Jillian HOY, AgriSearch - NI



Alberto MENGHI, CRPA - IT

General objectives of R4D Thematic Network

Resilience

Robustness

Sustainability

3 expertise areas (3 *Knowledge Areas* KA) =

Economic and social resilience

Technical efficiency

Environment, welfare and society





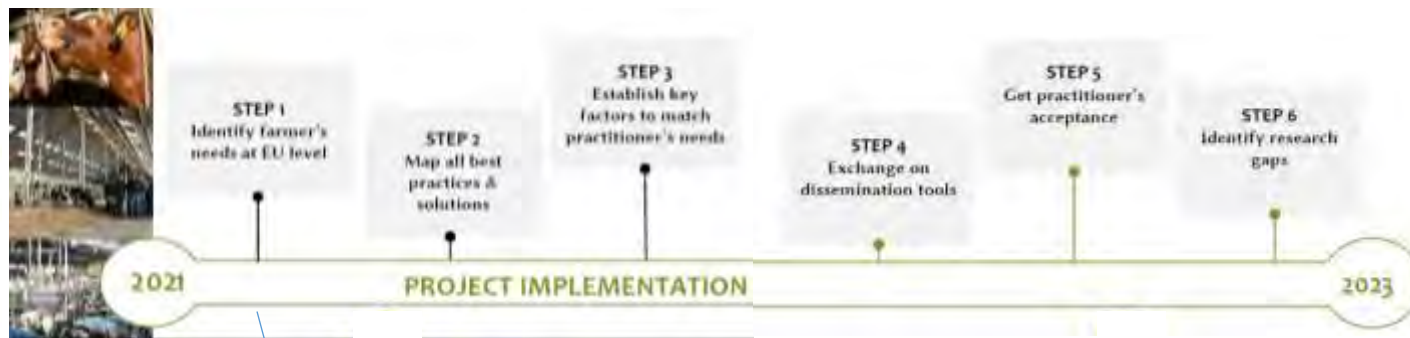
The partners



Expected outputs of the project: *Ready-to-use Best Practices*

FARMERS

GROUPS

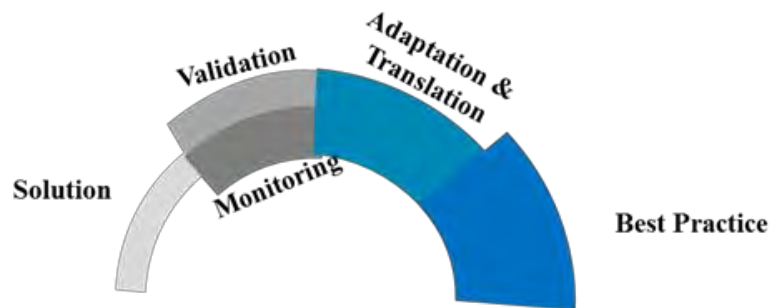


1st survey 2021: 3 Key R4D Themes

10 Need AREAS

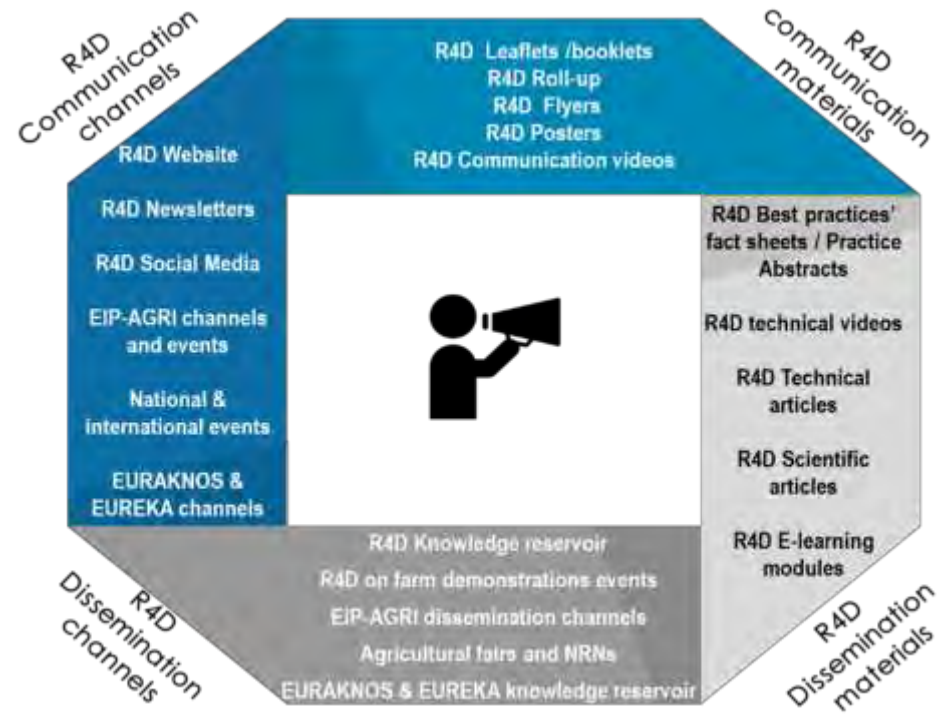
30 NEEDS

160 possible solutions



Communication & Dissemination

Our social networks



Our partnerships:





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Resilience
4 for
Dairy

**Thank you for your attention
Get in touch with us!**

Contact: valerie.brocard@idele.fr



Slovenia

20,271 km²
2,1 mio people
30 y. of independency



Marija Klopčič

University of Ljubljana

Biotechnical Faculty

Depart. of Animal Science

Cattle breeding & Farm management

DAIRY + GRASSLAND/FOREST COUNTRY

- 📉 100.000 dairy cows on 5,500 farms
- 📉 Milk price: avg (8yr) 30,71 €ct /EU: 33,96 €ct

Main dairy industries and products

- Ljubljana Dairy (Lactalis)
- Dairy plant Celeia, Pomurske mlekarne, Planika Kobarid, Krepko
- 40 % raw milk export to IT, CRO, ex-Yu
- Import of cheese





Country Farmer's strategy for a "resilient" dairy system

- ➔ Farm growth / specialization
- ➔ Increase of milk production and efficiency improvement
- ➔ Modernization of housing systems / automatizations
- ➔ Diversification and added value
- ➔ Networking and cooperation of farmers
- ➔ Strengthening the role of farmers throughout the food chain





Innovations in the dairy sector in Your Country

Environmental & animal friendly housing systems – separation of urine & faces, Cow garden barn, reducing of emissions & stink, automatization (robots, sensors, virtual fence ...), niche market (A2A2/hay/organic milk), added value

Future or potential shocks and threats

Big competition for agricultural land (farmers, industry, roads, energy..), Stop using Tie-stall housing system for rearing cattle, Climate care (reducing of emissions of GHG/NH₃, water quality), Consumers and Society opinions





Diversification

- **Agricultural activities**

- Suckler cows
- Beef/pigs/sheep/goats
- Horses / bees
- Vineyards/horticulture
- Forestry...

- **Non-agricultural activities**

- Special local products
 - Milk & meat products
 - Oil, honey, ...
- Energy production
- Machinery services
- Agro-tourism
- Cottage industry
-





The Netherlands

17 million people



Abele Kuipers
Wageningen University & Research
Farm management
International relations

Multiple use of building



During summer cows go grazing

Bedding used for horticulture: tomato, paprika, cucumber,...

DAIRY + FLOWER COUNTRY

- 1.6 million cows; on 15000 farms
- 12 million pigs
- 100 million poultry
- Import food and feed stuffs harbour Rotterdam
- Exporting country; EU; far East important
- Phosphate quatum
- Ammonia quatum
- Methane quatum?



Farmer's strategy for a "resilient" dairy system:

- Land tied farming and more grazing (policy driven)
- Efficiency of production
- Increase longevity of cows
- New technologies
- Maintain cooperation and good infrastructure





Start of development milking robot Other techniques



Innovations in the dairy sector in Netherlands

- Cow-toilet; Cow-garden, separation urine and faces, catching of gasses from the air in barn (closed barns?)
- Carbon storage under grassland

Future or potential shocks and threats

- Fight for land: houses, roads, nature, water reservoirs, sun panels/parks, windmills, data center
- Take away certificate to produce near nature area's (< 25 km)
- Reduction of ammonia (70%) - nature related - and reduction of methane (30 %) - climate change related

Consumer attitudes



What direction to go to ?!





Country



Valérie BROCARD

- French Livestock Institute - Idele
 - Dairy cows feeding and management; low input and organic systems; robotic milking and grazing.
- In charge of experiments in two experimental units (conventional and organic) in Brittany, Western France



DAIRY COUNTRY AND/OR REGION SITUATION

- + High production potential, moderate land cost, forage potential (maize and grass), limited inputs, farmers skills, diversity of products
- Milk price at farm gate, farm succession?, strong environmental regulations, high level of fixed costs



Valérie BROCARD - Idele FR



3 strategies for a “resilient” dairy system in France

- 1- **Increase volumes** with limited investments, large forage area and labour well mastered
- 2- **Low inputs-** high self sufficiency (forage based system)
- 3- Looking for higher **added value** (PDO, Organic, on farm sales)





Valérie BROCARD - Idele FR



Innovations in the dairy sector in France

Diversification: on farm processing (new job, new skills, beware of workload); production of energy

PLF: to limit workload and simplify; beware of investments

Collective strategies: coops for machinery, sharing workers, farmer's brands...

Back to grazing to limit costs and labour, for positive image, animal welfare

Future or potential shocks and threats

At whole chain level, world prices (milk and inputs)

Generational renewal, attractiveness of dairy farming

Climate change (forage production)

Animal diseases





Brittany (Western region) FRANCE

Dep. Côtes-d'Armor



CEDAPA “Technical Center for a more autonomous farming”

- Professional association of 160 farms members, mainly dairy cow breeders. 9 employees
- Main field of activities : promoting economical **grazing systems**, encouraging farmer's independence. By accompanying farmers groups.
- 9 local groups, 6 thematic groups

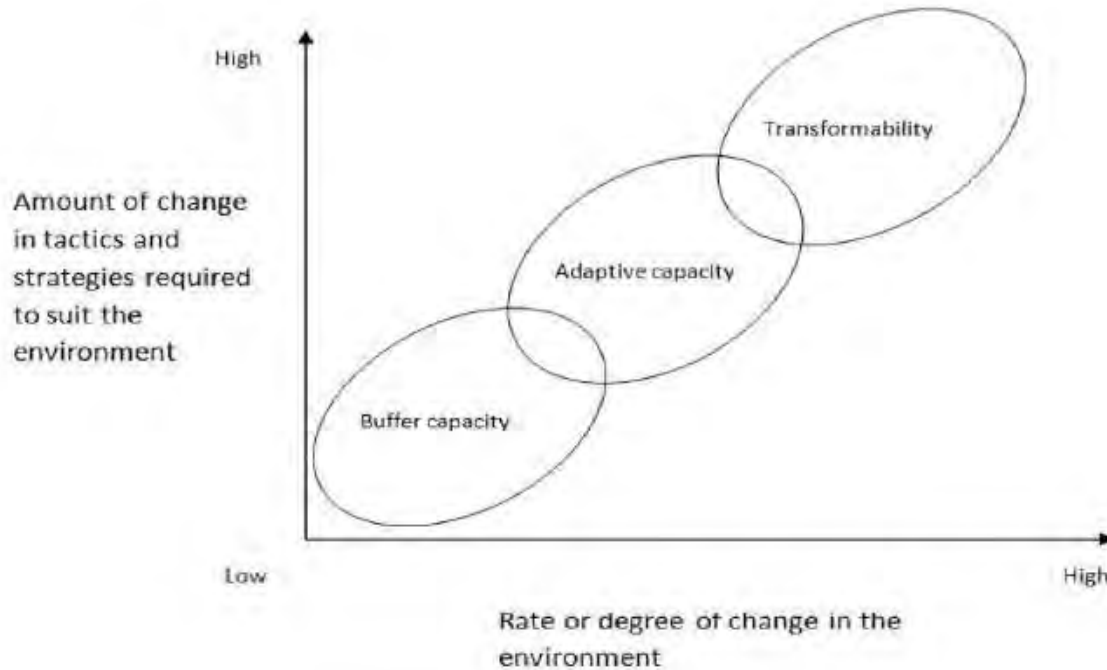


LOCAL DAIRY SITUATION

- Breton average size dairy farm: 88 ha; 2.2 Unit labors; 580.000 L milk produced per year with 77 dairy cows.
- Farm trend in Brittan : 9.000 dairy farms (37% of Breton farms are specialised dairy farms), \searrow 16 % of dairy farms since 2010
- Production trend: slight increase (+1.6% in 5 years). Brittany : 5.444 millions of liters sold milk in 2019-2020. Despite a reduction of the Breton herd => INTENSIFICATION PROCESS
- Average milk price (2020): 358 € for 1.000 L
- 740 organic dairy farms in Brittany (8% of dairy farms)
- Mainly for mass ditribution : butter, emmental, cream... with cooperatives : Lactalis, Sodiaal, Entremont, Danone, ...



Our definition of RESILIENCE



“The ability to cope with disturbance” to still persist (keep farmers in the farm, in fair conditions).
 => 3 kinds of strategy depending on shock intensity.



Breton farmer's strategies for a “resilient” dairy system

=> *Low inputs- high self sufficiency (forage based system)*

- Keep a flex system able to absorb hazards (do not aim for the maximum level of production allowed by your farming system)
- Reduce costs and labour by improving grazing management and food autonomy
- Improve labour welfare, reduce working time
- Adjust the production strategy (herd and grazing management) to grass production potential
- Diversification : looking for higher added value (low inputs with self-sufficiency systems, organic, cheese and meat production, farm direct sale)





Innovations in the dairy sector in Brittany region

- **“Waste hunting”** : reduce costs directly linked to milk production
- **Adjust livestock density** on growing grass capacity (favor dairy cows over heifers)
- **Grouped calving systems** : milk drying up when grass is missing
- **Single milking** per day in summer, or even the whole dairy period
- **Multibreed crossing** : looking for more rusticity, more resistance, milk quality...
- **Multispecies pastures** (with dactyl, fescue...) & Alfalfa implantations
- **Low inputs forages diversification** : meslin silage, cereals grazing, fodder trees.
Natural spaces valorisation
- **Agroforestry** : develop hedges in the agricultural area

Future or potential shocks and threats

- **RENEWAL GENERATION** on dairy farms ; low attractiveness of this profession
- **CLIMATE CHANGE** : dryer and warmer summers unfavorable to forage production ;
 - **PRICES** : A drop in spring milk price ; calves remuneration...
 - **CAP's evolution** unfavorable to maintain grass based systems



Region:
Schleswig-Holstein
Northern Germany

Country



C | A | U



Germany



Dr. Ralf Loges, Kiel University

- Senior scientist and lecturer for forage production/organic farming
- responsib. f. research dairy-farm Lindhof
- Research area: Mixed farming, Grazing, Low-input milk production, Greenhouse-Gas-Emissions, PCF-milk



Dairy Sector in Germany (D)

- 57,322 Dairy farms keep 3.9 Mill cows which produce
- 32.4 Mill t milk (8273 kg ECM/cow)
- D is both: largest EU producer + marked for milk products
- Degree of self sufficiency with milk products 115 %
- So far 1 % increase in milk production per year since 2000 but until 2030 expected 10 -15 % decrease in production because of trends towards more environmental friendly production (depending on upcoming political decisions)
- averg. dairy farm size increases, while 30% of farms will close
- Creameries shift portofolio with 30% plant based products
- Milk price: in future co-existence of different pathways
 - a) premium products + b) mass production for the world market





C | A | U

Ralf Loges
Kiel University
Northern Germany



Country Farmer's strategy for a “resilient” dairy system

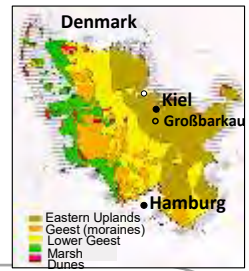
- **Reduction of feeding costs:** more (cheap protein from) forage, grazing and catch crops
- **Sustainable growth when land prices are affordable**
- **Cooperation between different farms and farm types = real or virtual mixed farming:**
 - introduction of (grass based) forage crops on arable farms,
 - contracts to export excess manure from dairy to all-arable farm
- **Diversification of milk production and sale of dairy products**
 - organic milk, pasture milk, animal welfare milk.... when creameries offer contracts....
 - dairy products produced and sold from the farm
 - farm shop, cooperative farm shops in cities, delivery services, self vending machines





C | A | U

Ralf Loges
Kiel University
Northern Germany



Innovations in the dairy sector in Germany

- Longterm contracts** between creameries and dairy farmers with respect to price boundaries and amount of milk to be delivered in the contract period
- New premium price milk products** offering possibilities for higher prices often in combination with increased environmental and animal welfare benefits.
- Digitalisation and improved sensors** for optimisation of farm management and animal health
- Diversification**, self-processing and direct selling of milk and other farm products
- Cooperation between farmers**: virtual mixed farming / sharing of machines





C | A | U

Ralf Loges
Kiel University
Northern Germany



Future challenges for the dairy sector in Germany

Increasing land prices due to investments and parking of money from industry and because of land–use change: photovoltaics and reduction of intensity on peat soils

Fluctuating milk prices are much lower compared to full production costs

Financial pressure, stress, high workloads for farmers and their families in combination with low acceptance from society

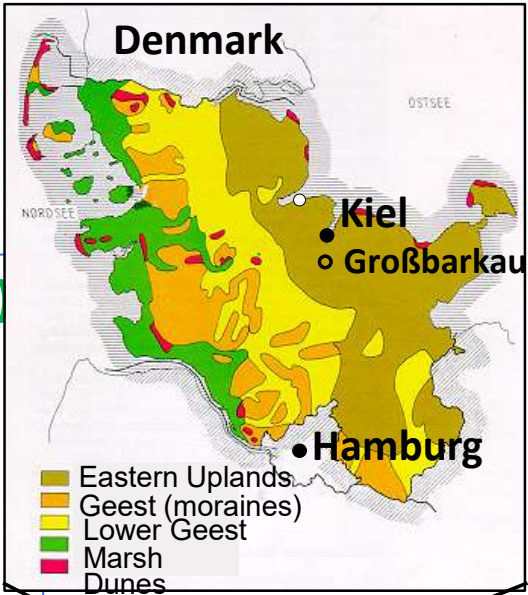
Higher requirements with respect to animal welfare, environmental emissions and biodiversity in contrast to, that the majority of customers are not willing to pay for it e.g.: Everybody wants cows on pasture. Pasture milk is on the shelves of all German supermarket chains, only a minority buys this milk and prioritises different





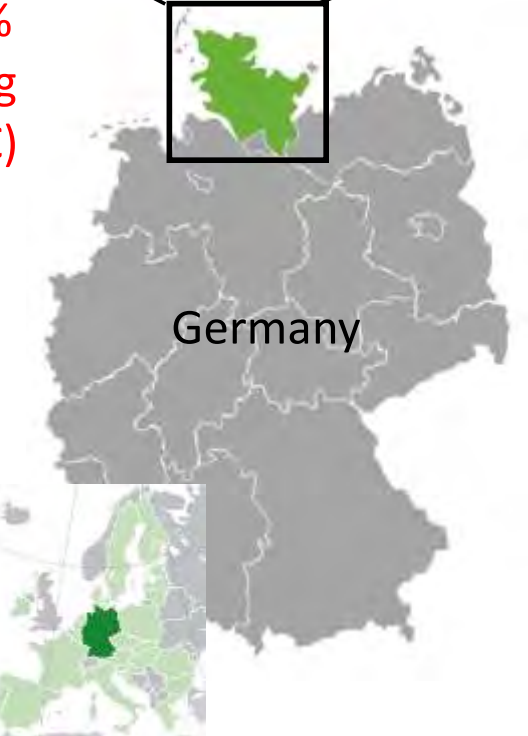
Region:
Schleswig-Holstein
Northern Germany

Country

DAIRY PRODUCTION in GERMANY (and in SCHLESWIG-HOLSTEIN)

D: 57,322 Dairy farms keep 3,921,410 cows (68.4 cows/farm)
SH: 3591 Dairy farms keep 370,888 cows (103.3 cows/farm)
D: 32,442,000t milk produced (8,273 kg ECM/cow)
SH: 3,476,000t milk produced (9,372 kg ECM/cow)
D: 2000 - 2020 increase in total milk production by 20 %
 decrease of dairy farms by 60 %, increase in milk per cow by 30%
 - milk price: 2000: 31.9, 2021: 34.0, production-costs: 44 ct per kg
D: Main dairy industries: DMK (48), Müller (21), Hochwald (15 Bill€)



D: Europe's biggest market for dairy products
D: Main Dairy Products (and self-sufficiency):
 Fresh Milk 4.6mil t (112%)
 Cheese 2.44mil t (125%)
 Yoghurt etc. 3.6mil t (127%)
 Butter+Cream 0.9mil t (105%)
 Milk Powder 1mil t (120%)

Jörg Riecken

Grünhof at Großbarkau



The herd

- 130 Holstein dairy cows + 80 heifers for restocking
- Autumn block calving (4 month)
- 11,049 kg milk /cow /year with 3.86% fat, 3.34% protein = 796 kg milk solids cow/year
- Delivering to creamery specialized in tailor-made compounds for food-, ice cream- and sport nutrition industry

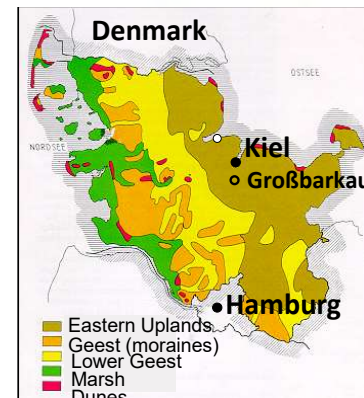


Workforce:

- 2.2 Labour units = 1 Farmer, 0.2 retired farmer, 2 farm trainees

Agricultural area

- 130 ha =
- 72.5 ha permanent grassland
 - + 25 ha silage maize
 - + 16 ha cash crops: (wheat, barley + oilseed rape)



Housing system

- Grazing from April to October
- Cow-comfort cubicle barn, new building from 2019 offering: extra space, lots of fresh air and natural light





Jörg Riecken Grünhof at Großbarkau



Main strategies used on our farm to be “resilient”

Happy and healthy productive cows: “11,000 kg-cows” housed comfortably and allowed grazing

High work efficiency 600,000 kg milk produced per labour unit: achieved by grazing in combination with + seasonal autumn block calving and efficient management

Cost efficient feeding: quality grazing during second half of the lactation period, reduced input of expensive concentrates especially during summer, 6,020 kg milk cow and year from forage

Various sources of income: Dairy production, photovoltaics, guest horses, additional incomes...

Good professional advice in combination with **Exchange of experiences** with other farmers
EIP-Operational Groups, Discussion Groups, EDF-Membership





Jörg Riecken Grünhof at Großbarkau



Main innovations used to be a resilient farm:

Cow-Comfort-Barn

Professionalised grazing management based on autumn block calving

Future innovations towards an even more resilient farm

Milking robots in combination with full grazing (ABC)

Contract with the creamery for better paid grazing based animal welfare milk (requirements already met)





Region
Veneto

Country



AZ.AGR. LA MOLINA DI DELLAI GIORGIO E FRANCESCO

The farm is located on the right side of the river Brenta, an area with availability of water for very good production of hay and mais. Several dairy cooperatives are in the area and they produce a number of PDO cheeses

SHORT HISTORY :

- 1970 My father bought five hectares of land.
- 1976 Built a barn for 30 cows in Tie Stall Barn and 50 meat bulls
- 1988 stop meat bulls breeding and change the barn for 80 milk cows in Tie Stall
- 2002 Change the tied up stall to free housing with 80 straw cubicles and milking room 8+8 in parlour system.
- 2010 Built barn for haifers and dry cows with 104 cubicles on gum carpet; in the same year we have installed on the barn roofs a photovoltaic system for 58 KWH



We are a family farm. The Family farm system is typical for this area. We have three full time labour units: myself, my brother and one worker for the barn.



AZ.AGRICOLA LA MOLINA DI DELLAI GIORGIO E FRANCESCO



Main strategies used in your farm for a “resilient” system

Today we have 115 cows producing 37 lt/day and in total we have about 250 animals Frisian breed.

In 2020 we produced 1310 tons of milk (3,92 fat and 3,32 protein) with 110 milk cows on average. The final price was 0,46 eurocent/lt included quality and VAT.

At the moment the price is 0,36 € excluding quality and VAT, but we hope to have a balance at the beginning of next year.

The milk is delivered to the cooperative Lattebusche for production of PDO cheeses like Grana Padano and Asiago Cheese.



Lattebusche dairy cooperative has about 330 members and collect about 400 tons of milk per day.

It produces specially PDO hard cheeses (grana padano, asiago, Piave) but also soft cheeses, liquid milk, yogurt and ice cream.



AZ.AGRICOLA LA MOLINA DI DELLAI GIORGIO E FRANCESCO



Main strategies used in your farm for a “resilient” system

We work 70 ha, 12 ha own land and 58 ha rented:

- 39 ha hay
- 12 ha mais
- 19 ha double crop :
 - IN SPRING
 - 6 ha for ryegrass
 - 6 ha grain silage
 - 4 ha barley silage
 - 3 ha pasture



IN AUTUMN

- 9 ha sorghum silage
- 8 ha grain sorghum for mash
- 2 ha soybean



In spring and autumn heifers and dry cows are outdoor for 70/80 days.

All land works to produce hay we do ourselves;

All works for arable crops, are done by contractors

All the hay and silages are self-produced, flours and concentrates are purchased.



AZ. AGR. LA MOLINA DI DELLAI GIORGIO E FRANCESCO



Main innovations to be a resilient farm

Our strategy is to keep this number of animals, but modernize the cooling system and adopt new techniques and technologies for good management of slurry and manure.

Very important for the future is to collaborate with the cooperative and work to improve quality of milk, animal welfare and environmental sustainability, particularly use genetic research and bulls that improve the milk casein.

Main wished innovations to be a resilient farm

Electric mixing vagon is an interesting technology we would like to use when will be affordable and well tested.



Region Emilia
Romagna

Country



DAIRY COUNTRY AND/OR REGION SITUATION

- We produce in the Parmigiano-Reggiano Area. Number of farms decreasing and milk production increasing, but we have a quota system to limit the growth
- milk price: above 0,60 € on average in the last 3 years. We are member on San Pier Damiani Dairy Cooperative.
- There are about 300 dairies (decreasing) producing about 3.8 million wheels of Parmigiano Reggiano (increasing).





Farm: Delsante Elvezio e Saverio

Dairy: Caseificio San Pier Damiani



The herd

- Dairy cows number: 182
- Breed: 350 Frisian cows
- Production:
1.550.000 kg milk/year
used for Parmigiano
Reggiano PDO

Agricultural area

- HA: 120
- Main crops: Alfa-alfa grass
/ wheat / Ryegrass



Housing system

Indoor tied up stall

Workforces

- Labour units (Full Time Equivalent): 2 partners and 4 employees





Farm: Delsante Elvezio e Saverio Dairy: Caseificio San Pier Damiani



Main strategies used in your farm for a “resilient” system

FARM: 1. Animal health and welfare → Reduction of antibiotics starting from calves (vax) and optimize the proportion dairy cows/heifers

2. To be self sufficient for forage production. DNA Tests and genetic selection of A2A2 cows.

DAIRY PLANT: 1. Make the milk price stable increasing direct sales in-store and on-line, profiled marketing strategy and tourist reception with new shop and tasting room (2019: >7.000 visitors)

2. Diversifying the production looking for market niches such as Parmigiano Reggiano “only brown-cows” and “naturally A2A2 protein” (first PDO certified), fresh cheese “Damianino” out from quota system

3. To control the full production process from the land to milk to cheese to the final consumers.





Farm: Delsante Elvezio e Saverio Dairy: Caseificio San Pier Damiani



Main innovations used to be a resilient farm

FARM:

2012: Herd management software + Photovoltaic system

2015: Farm balance / economic performance

2018: automatic feeder

2019: Cow's DNA and milk tests

2020: Heifers monitoring with collar sensor

2020: A2A2 productions

2021: improved cooling system in the barn (ventilation)

DAIRY:

2018: Creation and developing of an e-commerce web-site and use of social media and web marketing

2021: new machine to optimize the cheese yield – automatic skimming system

2021: product innovation with the 1° Parmigiano Reggiano PDO A2A2

Main wished innovations to be a resilient farm

FARM

2023: build a new barn with milking robot system

DAIRY

Increasing direct sales via B2B and B2C targets to cover the 100% of the production



HILLION BRITTANY

FRANCE



HILLION SITUATION

Situated on the cost (St-Brieuc bay)

Population : 4,200 inhabitants

Rain : 700 mm per year

Silt being blown, good landlim

Context :

Green algae – sea pollution

Peri-urban area

Land pressure

Multiculture and breeding farming

Long chain and sometimes direct sales

25 farms on Hillion

1 cooperative for agricultural
equipment sharing and mechanical
repairs





The herd

- Dairy cows number: 73
- Breed: crossbred cows
- Production: 440,000 liters of milk (sold in long chain), 6.050 liters per cow, and poultry farming (direct sales)
- Organic farming since 2019
- Price of organic milk (2020): 451 € for 1.000 L

Started
in 2017

Agricultural area

- 80 ha with 18 ha close to the farm accessible for dairy cows
- Main crops: 65 ha grassland, 8 ha maize, 7 ha cereals-protein crops



Housing system

- Free stalls: 70 places
- Milking parlor: 2x5, simple equipment

Workforces

3 farmers
Working hours: 55 hours per week
Free week-end: One out of two
4 weeks off per year
Volunteer in a humanitarian association



Valérie JOSSET GAEC de Faouët



Main strategy used in your farm for a “resilient” system

Low pasture availability close to the farm → Reduce livestock density on area

Main innovations used to be a resilient farm

- Reduce stock density when grass is missing → **Autumn grouped calving system**
 - Milk drying period in July and August → release pressure on grasslands during intense drought
 - Forage system based on conserved grass because of the low pasture availability → peak milk production in autumn and winter, when milk price is the highest
 - The system is economically profitable (higher milk price compensates the higher cost of conserved grass)
 - The once-a-day milking during in the summer
- ➔ **Even if the farm has low area close to the farm for dairy cow grazing, grass-based system is still an interesting strategy to assure socially, environmental and economically resilience.**



Valérie JOSSET GAEC de Faouët



Main wished innovations to be a resilient farm

- To enhance groves and woods: the hedges can maintain the countryside
- To developp the number of active people on the farm
- To create a cheese dairy: to have a better milk recovery and to control milk price





HILLION BRITTANY

FRANCE



HILLION SITUATION

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Peri-urban area

Land pressure

Polyculture and breeding farming

Long chain and sometimes direct sales

25 farms on Hillion

1 cooperative for agriculture equipment sharing





Dominique MADEC GAEC Pré en bulles



The herd

- Dairy cows number: 57
- Breed: crossbred cows
- Production: 265,000 liters of milk in 2020, sold in long chain, and cider production (direct sales)
- Organic farming since 2018

Started
in 2019

Agricultural area

- 44 ha with 27 ha close to the farm accessible for dairy cows
- Main crops: 32 ha grassland, 5 ha maize, 5 ha cereals-protein crops

Housing system

Stable with straw, 58 places
Milking shed: 2x4, automatic release

Workforces

2 farmers
Working hours: 58 hours per week
Free week-end: One out of two
3 weeks off per year





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Main strategies used in your farm for a “resilient” system

- To ensure forage resources → Forage diversification + Prairie species diversification + Safety stock : 20-25%
- Small area → to reduce livestock density → to delegate heifer-raising → to reach food autonomy

Main innovations used to be a resilient farm

- Forage diversification : Grazing / Maize / Hay / Grass silage / Grass baleage
 - Pasture species diversification : multi-species grasslands (dactyl, RGA, clover, alfalfa, plantain, fescue)
 - Experiments : sorghum, forage rapeseed, ash pruning (fodder trees)
- **Small area : to multiply forages and to delegate haifer-raising to be economically, socially and environmentally resilient.**



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Main wished innovations to be a resilient farm

To plant hedges

To test new forages strategies : to graze trees, to value hedges, ...

