



DOTTORATO INTERNAZIONALE IN SISTEMI AGRO-ALIMENTARI E FORESTALI MEDITERRANEI

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From Quantity to Quality: a Changing Economy

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One economy?

Capitalism versus hierarchy

- In ancient times **economy** was based on authority and **power** (Hierarchy)
- Capitalism and market economy in Europe started with the **end of the middle age**.



Hierarchy

- Richness **due to power** (kings, ...);
- No self-determination;
- **Remuneration not related to results;**
- No advancement of Technology;
- Subsistence balance;
- Demography related to available resources.



The birth of the modern economy

by the end of the middle age and the great journeys

- ◉ **Marco Polo** (Venezia, 1254 –1324) travelled extensively in Asia along the Silk Road to reach China (Catai)
- ◉ **Cristoforo Colombo**, sailed from Palos de la Frontera on august 3rd 1492, in the same year he reached the today San Salvador on October 12th
- ◉ **Birth of trades**, entry into the system of **exogenous values** (precious metals, gems, fabrics, spices ...), need for **cash payments** (scarcely available);
- ◉ monetization of possessions; new owners were "**entrepreneurs**" (**remuneration based on merit**), the economic growth and technological progress started (**thanks to capitalism**).

When we were genius ... but we were wrong! (this' a joke)

In the **sixteenth (XVI) and seventeenth (XVII) centuries** the vision of the world radically changed following the discoveries in **physics, astronomy** and **mathematics** by Kopernik (1473-1543), Galilei (1564-1642), Descartes (1596-1650), Bacon (1561-1626) and Newton (1642-1726)

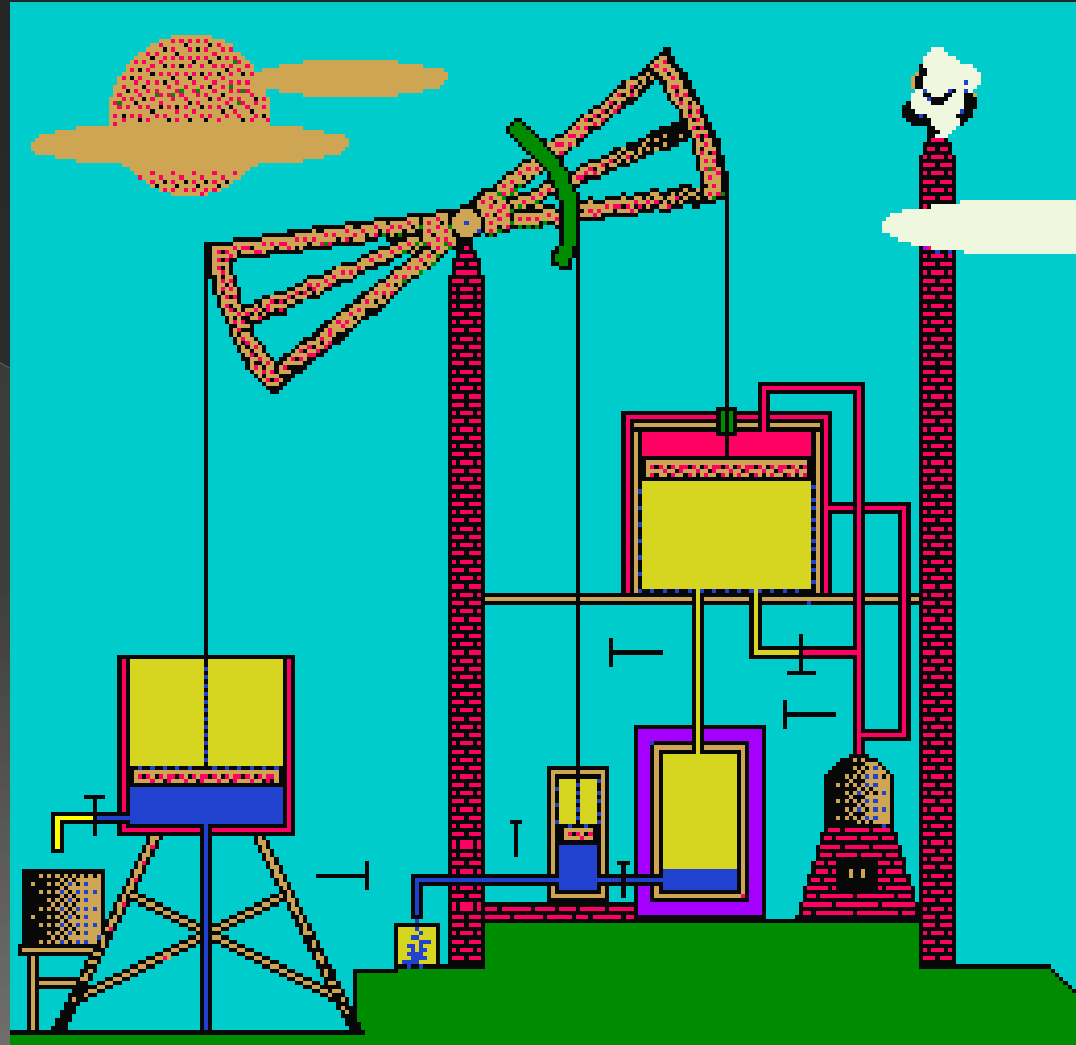
Galileo Galilei with the **scientific method** based on **quantitative measurement** banned the quality (!) from the observation of the phenomena.

Descartes created the **analytical method of thinking**, through which the comprehension of the whole takes place starting from the properties of its parts.

Reductionism (vs holism)

The Watt machine, mechanization, birth of industry

- James Watt (Greenock, january 19th 1736 – Handsworth, august 25th 1819) Scottish mathematician, engineer and inventor



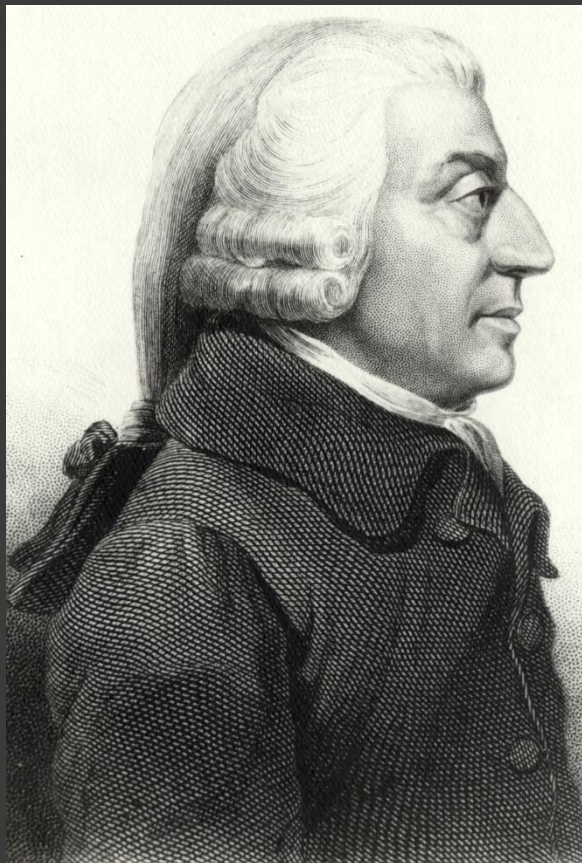
The «classic» economic paradigm

- ◉ Market as the main push for growth and innovation;
- ◉ Adam Smith (1723-1790):
 - > personal interest leads to social interest;
 - > the state exercises “surveillance” only;
 - > trade must run in free competition;
 - > final subsistence equilibrium is reached.
- ◉ In the long term, the "steady state" would be reached (Thomas Robert Malthus, 1766 – 1834);

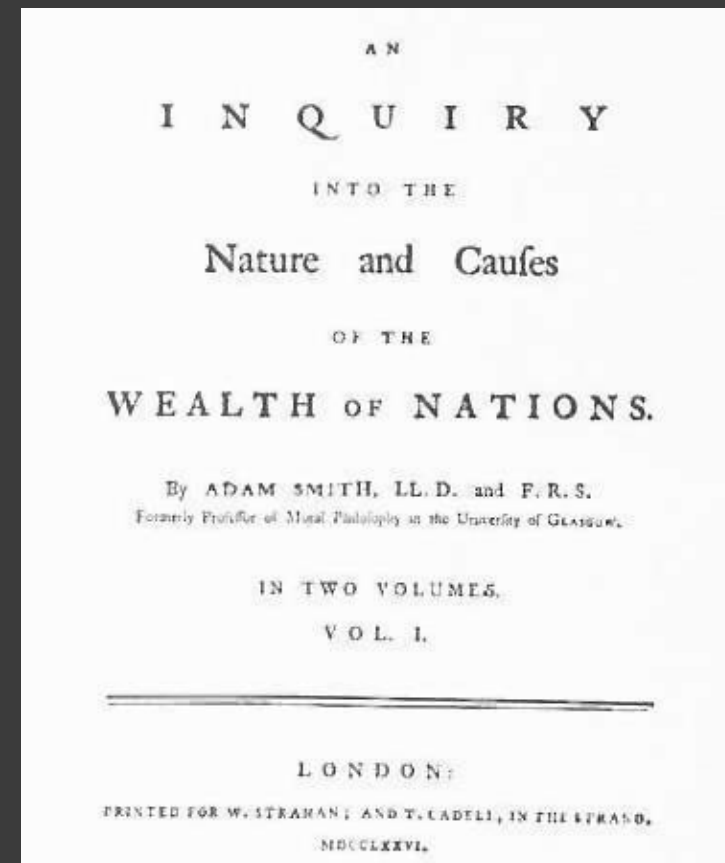


The Adam Smith Age:

The Wealth of Nations 1770



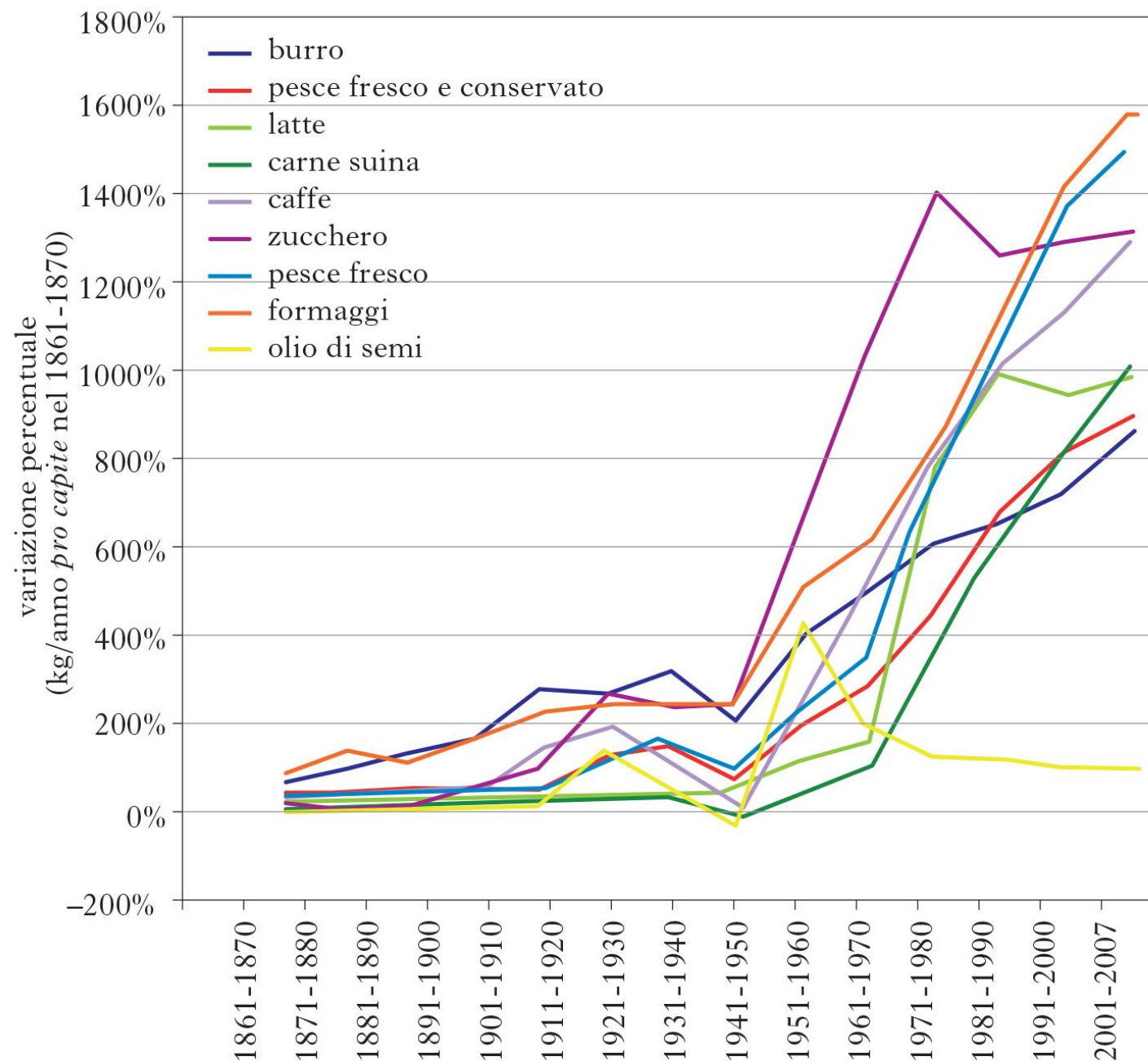
- **Plenty of natural resources**
- 1750 population is about 790.000
- Consumption rate is very low





Per capita food consumption

Source: Treccani





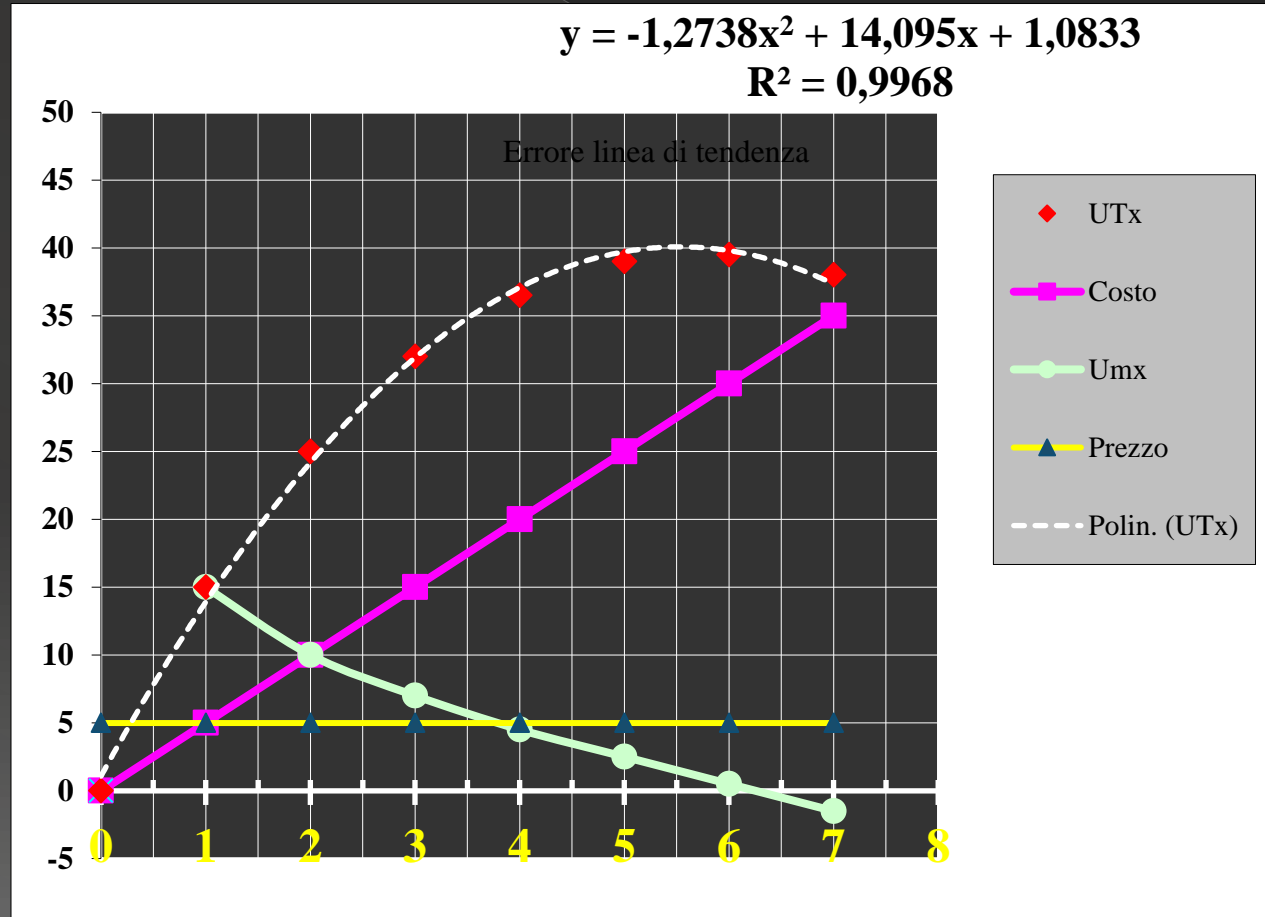
Neo classical economy: *«quantity»*

- **Unlimited availability of natural resources**
- Unlimited growth
- **Unlimited substitutability** of natural resources by human and economic resources

The Neoclassic paradigm from 1870

- ◉ Value/scarcity (demand, supply, price);
- ◉ marginal theory (focused on the short term);
- ◉ **The "economical laws"** (like in hard sciences);
- ◉ Pareto's Best (every balance of free competition);
- ◉ Welfare and **"market failure"**.

The consumer under competitive economy conditions



- Determinism
- Quantitative Allocation
- Undifferentiated Product
- Satisfaction is related only with quantity

The humanistic paradigm:

the correction of market failure

- ◎ “Cultural” origin of preferences;
- ◎ Altruistic behaviours are possible;
- ◎ The State addresses economy beyond the “**correction of market failure**” (transaction costs) limiting the market to the goals of equality.

The correction of market failure

Market and the environmental management

"Failure of the Market"

◎ Coase's theorem

- > It is allowed to pollute “under refunding”

◎ Property rights

- > Public officials also maximize (collective) utility;
- > "Rational ignorance": marginal cost of information
- > Property rights are (not) exclusive and transferable:

Market failure

- ◉ Externalities (dealing with **health and environment**);
- ◉ **Information asymmetry** (dealing with **information and awareness**);
- ◉ Opportunistic behavior (dealing with **quality**).

From the «neo-classic» to the humanistic economic paradigm

- Value is based on scarcity;
- Definition of "economic laws" (like physics);
- **Paretian Best** (competition is efficient);
- Economics of welfare and "market failure".



- Value is based on quality;
- Behavior analysis (psychology, statistics);
- Equity;
- Sharing, circular, environmental economy;
- Correction of "market failure".

The faults of capitalism:

sustainability, equity, quality

- ◉ **Value** = *utility* (human satisfaction)
- ◉ **Cost** is considered only if referred to the destruction of human goods (human costs)
- ◉ **No market value of natural resources** (plenty of resources; no existence value)
- ◉ **Unlimited storage of capitals/richness** (conversion of environmental resources)
- ◉ Absence of a **sustainability** paradigm.

Sustainability

- Economic growth is not sustainable
- "Development" (must be sustainable by definition) allows higher benefits from ecosystem services but increases the heritage consistence;
- Sustainable "growth" doesn't lead to real development but only to higher availability of resources (Brundtland report '87).

**OUR
COMMON
FUTURE**

THE WORLD COMMISSION
ON ENVIRONMENT
AND DEVELOPMENT

Sustainability and Externalities

- ◉ Costs and benefits that fall on external parties: society, environment, health, etc.
- ◉ the producer will only take into account the costs incurred, by adapting the management of the business, in order to maximize the efficiency of spending;
- ◉ the producer will NOT take into account costs incurred by the community, because there is no need to maximize the efficiency of spending.



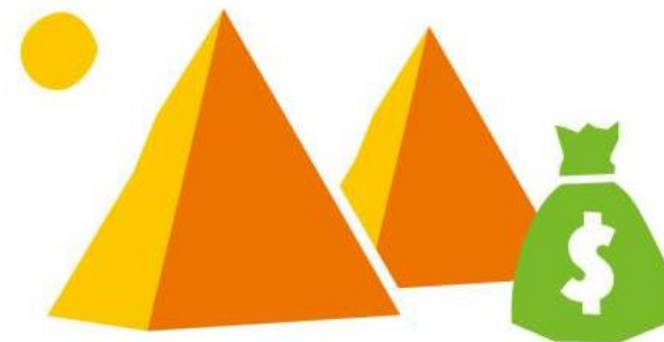
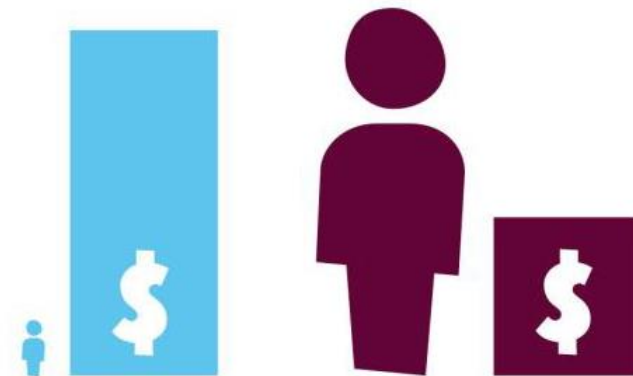
Equity and Concentration of the human richness

(Oxfam 2020)

The world's billionaires, only **2,153 PEOPLE** in 2019, have more wealth between them than **4.6 BILLION PEOPLE**.



The world's **RICHEST 1%** have more than twice as much wealth as **6.9 BILLION PEOPLE**.

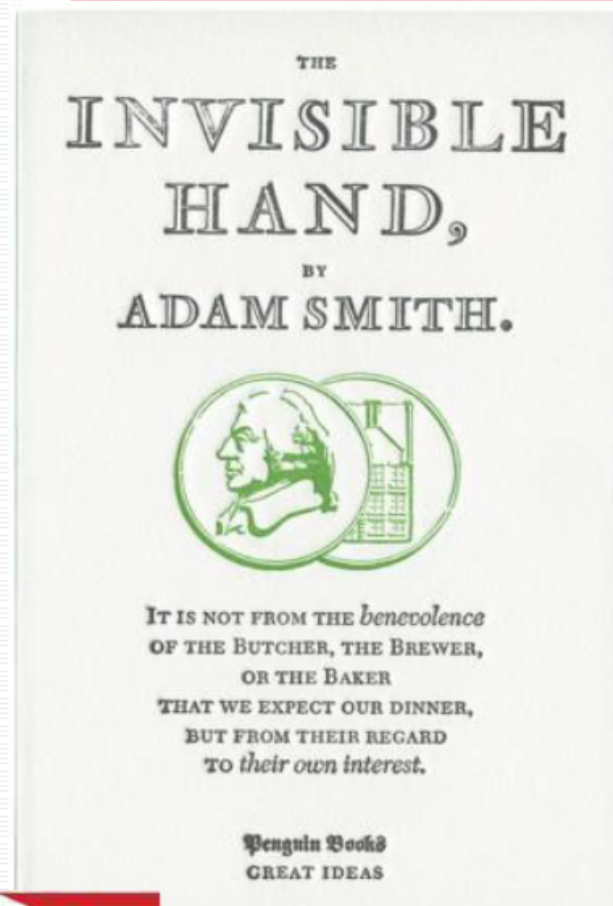


If you saved \$10,000 a day since the building of the pyramids in Egypt you would have only one-fifth the average fortune of the 5 richest billionaires.



La mano invisibile (1750 e oggi)

Equity
(Oxfam 2020)



- ☐ Affamati: 840 milioni entro il 2030
- ☐ Poveri: 115 milioni
- ☐ Lavoratori settore informale: 2 miliardi
- ☐ Disoccupati: 220 milioni
- ☐ Morti con Covid: 1,56

Source: Monica Di Sisto, vice president of Fairwatch NGO



Equity

- ✓ 1% top businesses has an average 57% of the export value in every Country
- ✓ Top 5 businesses 30% of the export value
- ✓ 2000-2007 wages drop from 57,5 to 49,5% of the GDP in developed Countries
- ✓ Since 1990 has been transferred from wages to capitals an average value of:
 - ✓ 4% USA
 - ✓ 5% Germany
 - ✓ 10% France
 - ✓ **12% Italy**

Source: Monica Di Sisto, vice president of Fairwatch NGO





Quality

*“Quality is the attitude of agro food products to **satisfy the customers’ (consumers) needs**”*

Main quality features:

- **Hygiene and health** (food safety);
- **Taste, smell, flavour, colour, nutritional power, etc...** (Organoleptic and nutritional features);
- **Use easiness** (shelf life, packaging, etc...);
- **Cultural features** (tradition, local belonging, genuine, etc...);
- **Ethical-social factors** (i.e. environment protection, human rights regardless to age, sex, etc...).



Quality features

- 1. Convenience:** easy to obtain and to use, (practical packaging for use and waste management) “time saving”, “effort saving” – both physical or mental;
- 2. Experience:** taste, flavour, aspect (related with emotional satisfaction and sensory perception), hedonic features of food;
- 3. Search:** ingredients, nutritional power, etc. (i.e. elements declared in label);
- 4. Credence:** Healthiness (compliance to the rules regarding origin, ethics, naturality) **certifiable by third parties.**

Quality: Information asymmetry

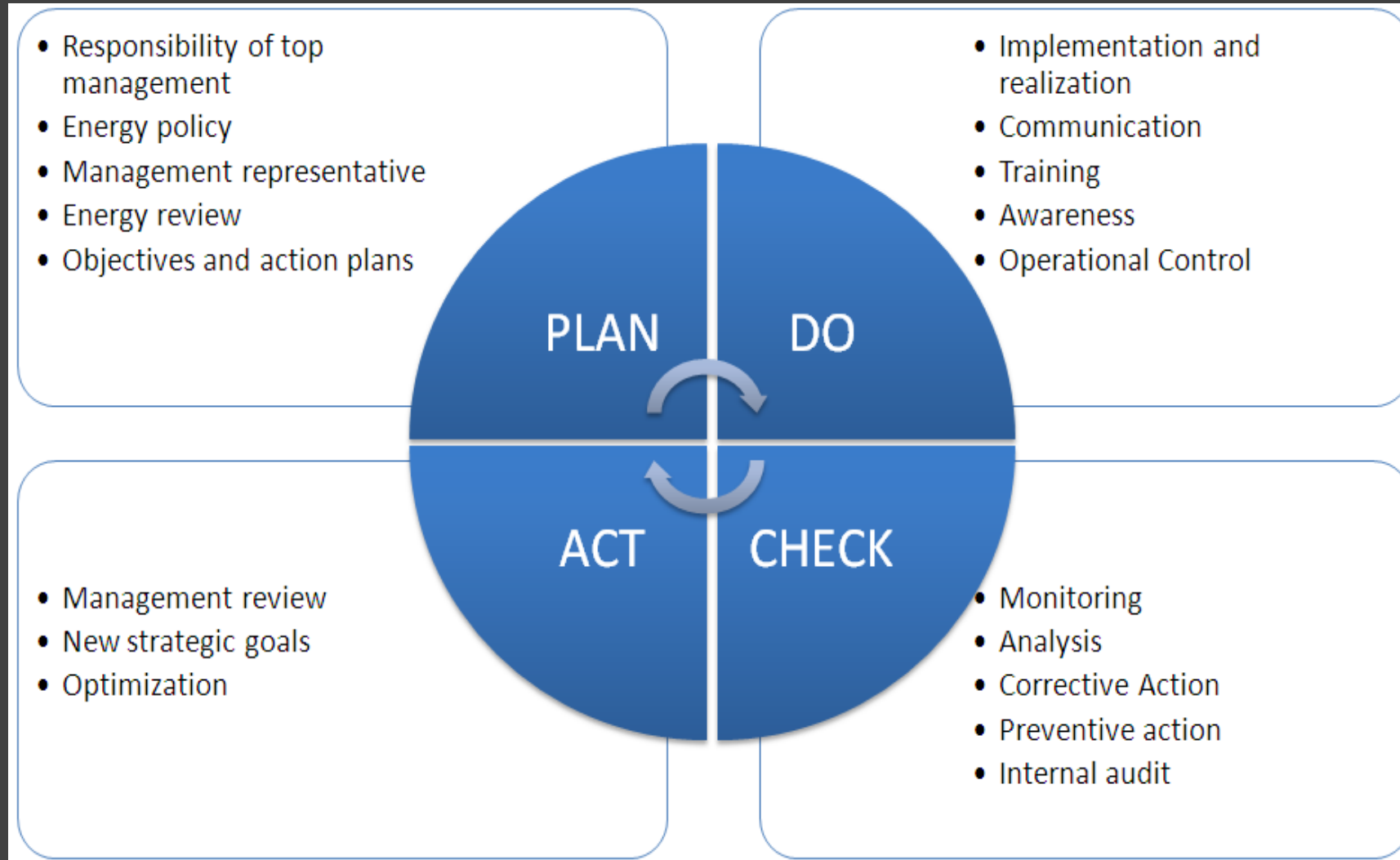
- Quality features are often not perceptible by the customer, so market is unable to correctly allocate them.
- It means that **price is related to quantity but not correctly related to quality**
(lower quality / lower utility)

Opportunistic behavior

- Suppliers usually have complete information about goods, consumers don't!
- Thus, suppliers can communicate a quality higher than the real one.
- Consumers will pay the price for something they will not get!



Quality is a “process”: the Deming's cycle - PDCA





Why Quality

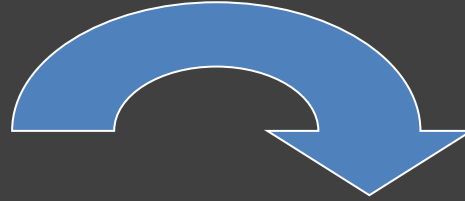
- **Certification is a correction of market failure**
- **Higher incomes**
- **Food culture**

The new needs (or desires) of Consumers can be satisfied by INTANGIBLE FEATURES: territorial origin, history, environment, ethic and health.



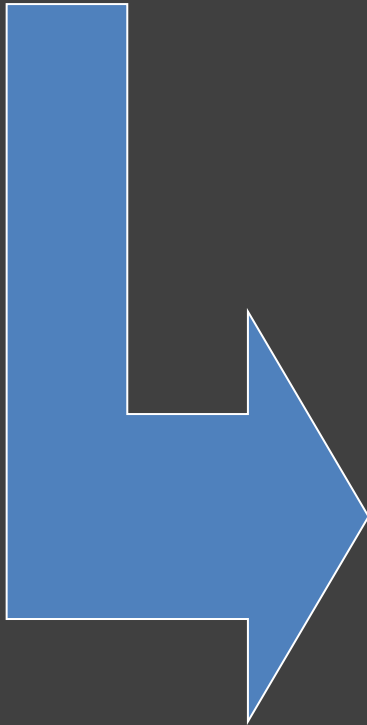
Quality goals

Quality



**A feature for goods to
sell on the market**

**A feature for a better
company management**



Correction of the market failure: CERTIFICATIONS

- PDO (Protected Designation of Origin)
 - PGI (Protected Geographical Indication)
 - TSG (Traditional Specialty Guaranteed)
(EU Reg. 1151/2012)
-
- WINE MARKET (EC Reg. 491/2009)
 - ORGANIC (Reg. Ce 834/2007)
 - EMAS (Eco-Management and Audit Scheme)

VOLUNTARY FIELD

Regulated by EU

Environmental purposes



The demand for **genuine, environmental friendly and sustainable development**, has been satisfied by **organic farming** and **EMAS** (Eco-Management and Audit Scheme)



The Protected Designation of Origin (PDO)

identifies the designation of a product whose **production, transformation and processing must take place in a specific geographic area** characterized by a recognized and established expertise.





The Protected Geographical Indication PGI

Identifies a product originating from a region and a country whose quality, reputation and characteristics can be traced back to its geographical origin, and of which **at least one stage of production**, transformation and processing takes place in the defined area.





The Guaranteed Traditional Specialty (TSG)

does not refer to an origin but distinguishes a traditional composition of the product or a traditional production method.





Agri-Culture

- Agriculture is the **anthropic interaction** with the environment for food production.
- Industrial agriculture can lead to a **fracture in the relationship between man and the environment**.
- Is industrial food production acceptable?
 - ethical issue
 - ecological issue



Agri-Culture

binding
Nature-food-man





Agri un-Culture

interruption of the nature-food-man bond



- ✓ Agriculture and related deforestation together accounted for one fifth (21%) of the total CO₂ emitted into the atmosphere in the period 2000-2010 (about 44 billion tons)
- ✓ Today it is responsible for 1/3 of global emissions
- ✓ Animal husbandry alone contributes 18% of its emissions
- ✓ About 30% of the earth's biodiversity loss can be attributed to agricultural and livestock production







Health

Nutrition-related diseases

Risk of colorectal cancer

over 20 studies and 3000 cases

(Milazzo G., Convegno Agricoltura, cibo e salute, Palermo 2014)

- **+15%** BMI > 25 (1,75 m x 77 kg)
 - **+33%** BMI > 33 (1,75 m x 101 kg)
- **recommended BMI 18.5 - 25**

Oncological risk factors	% Risk
diet	35
tobacco	30
Infectious agents	10
Sexual transmission	7
Work	4
Alcohol	3
Pollution	2
Other	9



Economy is not a social philosophy: **Consumption bulimia**

- Large industrial crops such as corn in **USA** **consume more energy (fossil) than they produce** (Photosynthesis) and eliminate the **Biodiversity**;
- Strong **environmental impact** and unhealthy food (meats, sweetened drinks, ultra-processed cereals, etc.).
- **Hyper-nutrition** determined by economic purposes (like animals on farms)



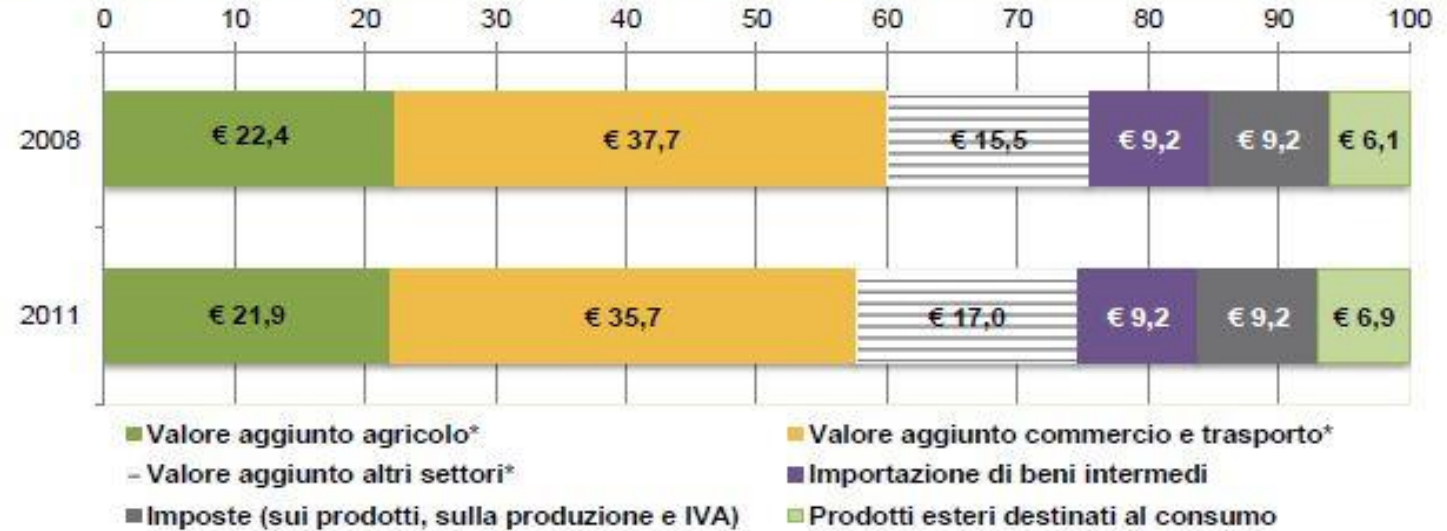
The "bulimic" economic model

- ✓ Economic management of resource
 - ✓ Legal and illegal
- ✓ Accumulation and **concentration of capital**
- ✓ **Need for "growth"** to (theoretically) bridge inequalities
- ✓ Depletion of resources



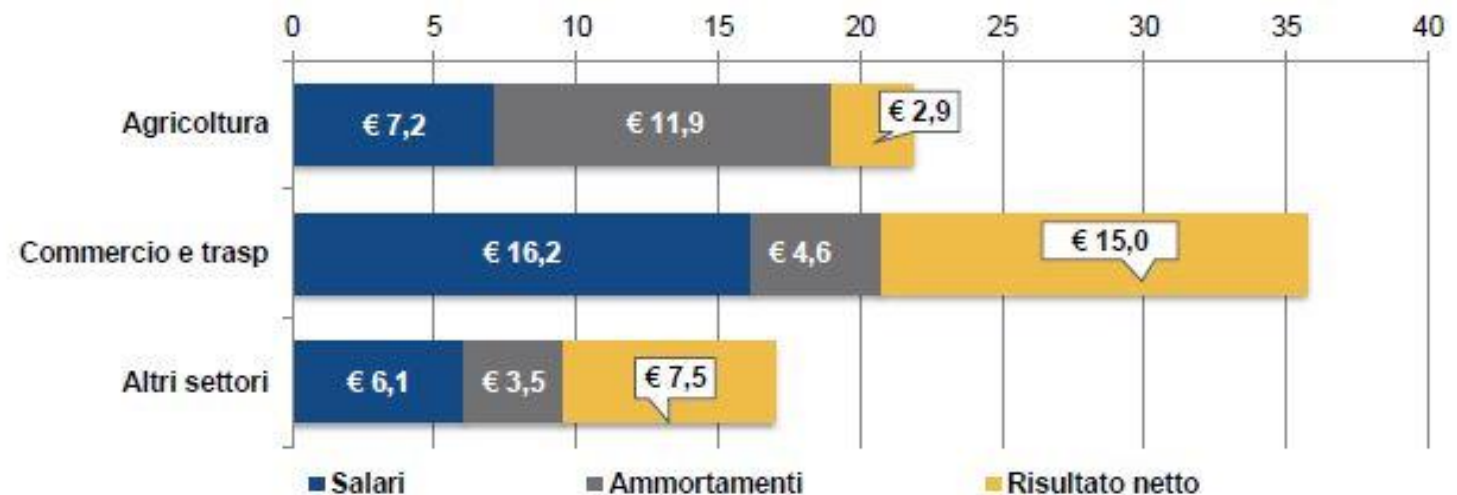
Value chain in fresh food sector agriculture weights for 20%

La catena del valore dei prodotti agricoli freschi (euro)



Fonte: elaborazione ISMEA su dati Istat e Eurostat - * Valore aggiunto al netto dei contributi e delle imposte

Scomposizione del valore aggiunto nella catena dei prodotti agricoli nel 2011 (euro)

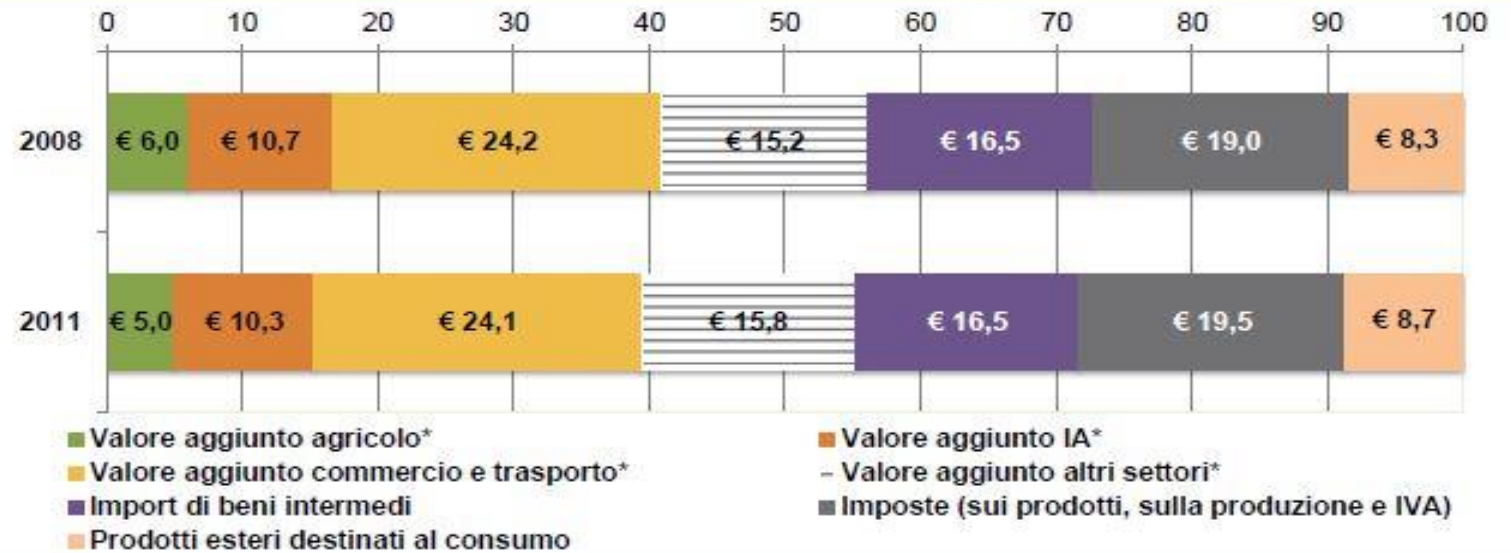


Fonte: elaborazione ISMEA su dati Istat e Eurostat.



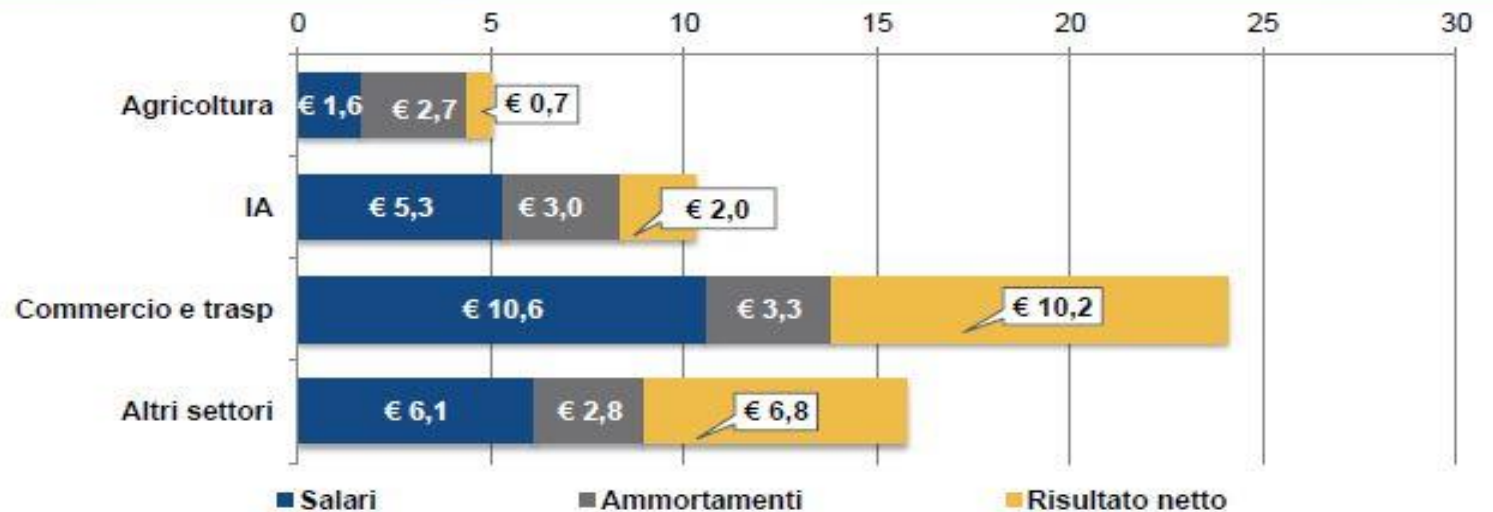
value chain in
processed
food sector
agriculture
weights for 5%

La catena del valore dei prodotti alimentari trasformati (euro)



Fonte: elaborazione ISMEA su dati Istat.

Scomposizione del valore aggiunto nella catena dei prodotti alimentari nel 2011 (euro)



Fonte: elaborazione ISMEA su dati Istat.



Supermarket revolution

- In Italy, 73.5% of the retail food trade passes through large retailers, compared to 16% of traditional stores
- Fewer and fewer and growing bigger and bigger farms, are inserted in vertical supply chains in which the farm is subordinate to distribution;
- Therefore, they need to **reduce costs**.



Labour costs

- High incidence of labour costs in agriculture
- High supply of "migrant" labour available (or forced) to work for lower wages than Italians allows labour costs to be squeezed.

Slavery exploitation



- irregular immigration is a reservoir of undeclared work
- 50% of the work
- 35% of the value, growing!





The Ethical question

In Côte d'Ivoire and in the poorest areas, child labor is very high (from 31% to 73%).

- **They work more than twelve hours a day**
- **They perform tasks that are dangerous and harmful to health**
- **They don't attend school**





Made in Italy

- Made in Italy could be associated with the exploitation of migrant workers
- need to "clean up" the Made in Italy





Food: we should pay more!

- ◎ **Food is under valued**
- ◎ **Food price is very low**
- ◎ **A bigger part of value must pay agricultural production**
- ◎ **Richness distribution is too unequal**
- ◎ **Job is under paid**



Territory and economy

- ◎ **Territory** (*terroir*) **is** (a feature) of **goods**.
- ◎ **Food and wine Tourism;**
- ◎ **Direct use of the rural environment;**
- ◎ Quality processes are produced by ***territorial sharing*** (local governances)
- ◎ **A correct model of development is inscribed in the territory, in its history and in its culture.**



UNESCO World Heritage in SICILY

World Heritage List:

1. Parco Archeologico della **Valle dei Templi**;
2. **Siracusa** e Necropoli rupestri di **Pantalica**;
3. **Isole Eolie**;
4. La Villa Romana del Casale di **Piazza Armerina**;
5. Monte **Etna**;
6. Le **città tardo barocche** del Val di **Noto**;
7. **Palermo Arabo Normanna** e le Cattedrali di Cefalù e Monreale (Iscrizione nel 2015).

Intangible Cultural Heritage:

8. L'alberello della **Vite di Pantelleria**;
9. L'opera dei **Pupi**;
10. La **dieta Mediterranea**;
11. Muri a secco



The ancient rurality of Sicily

- The position in the centre of the Mediterranean promotes trades:
- In the 8th century bC the Phoenicians, through the port of Marsala, "imported" goats and sheep: the production of the **first pecorino cheese in Europe was realized in Sicily**
- cereals arrived and with them **the first BREAD** is prepared – the first and most important food of man, born between Mesopotamia and Egypt.



Valorisation of typicality

- Agricultural and food specificities
- Landscape beauty
- Ecosystem integrity
- Culture
- Health



Specificity of Sicilian agriculture

- ✓ Biodiversity;
- ✓ Healthiness;
- ✓ Intangible contents: typicality, history, etc.;
- ✓ Mediterranean Diet;
- ✓ Sicily Brand.

Those resources are activated by local self-organization:

companies, services and institutions.



Sarcelles

Villes Nouvelles around Paris

Designed by Roger Boileau and Jacques-Henri Labourdette. Its construction began in 1955.

It was conceived 'on paper' by the architects disconnected from the history of the place.

... men leave early in the morning to go to work and go back home late in the evening. Habitants complain of boredom and depression... is a town where it is impossible to meet each other

Parkour, Anarcho-Environmentalism, and Poiesis

Michael Atkinson

Loughborough University, Loughborough, UK

Journal of Sport
& Social Issues

Volume 33 Number 2

May 2009 169-194

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City and countryside

- Rural demand: urban and peri-urban agriculture, urban gardens, forest and vertical garden, farmers' markets, solidarity buying groups.
- **Food brings the rural territory into the city:** catering in a rural environment and agritourism, food territoriality.
- **Cities and countryside are complementary,** large business groups take sustainability-as-deal (Nidumolu et al., 2009)

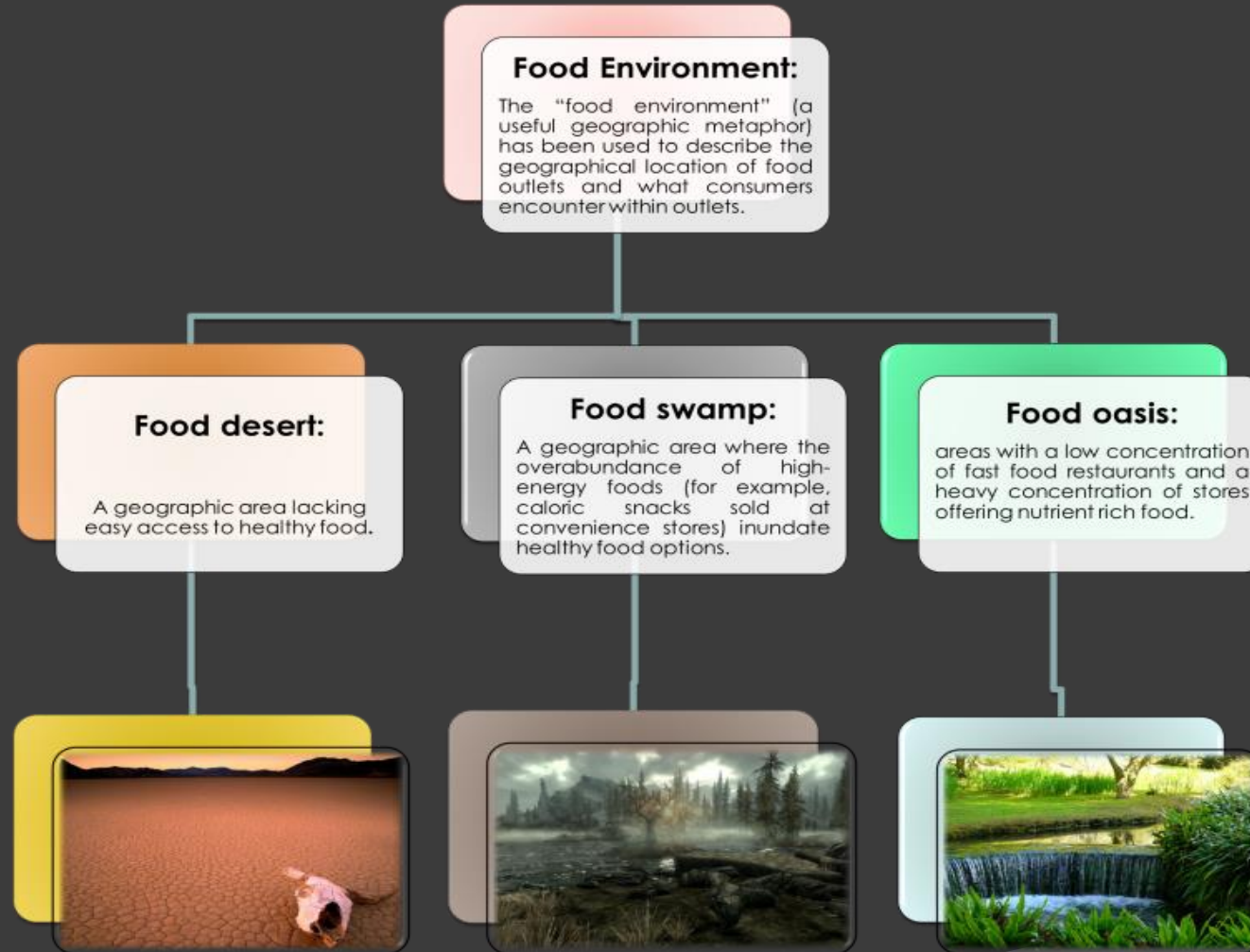


Food environment

- **Number, type, size and location of food stores;**
- **Availability (offer) of food categories (e.g., fresh fruit);**
- **Variety of references by category (e.g., fresh fruit assortment);**
- **Price and quality of food.**



Deserts, swamps and food oases





Meeting: "Agriculture, Food & Health"
Palermo - September 19th-20th, 2014



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Food deserts, food swamps, food oases: A matter of food accessibility

What are food environments?

Food environments can be described in different ways: the location of retail outlets in a community; the range and types of foods available to consumers; the information provided to consumers about foods; and organizational structures which affect food access and availability (such as retail networks).

Relationship between eating behavior, health outcomes and food environment

The linkage between public health problems resulting from poor diet, and the retail food environment found in a community is, in part, common sense. What we eat is influenced by what's readily available in our community. There is growing evidence that what we eat — and the likelihood of being obese — are influenced by the food environment. Increasing evidence suggests that environmental factors, including the food available for purchase in a community influences the types and quantities of food that people purchase and consume. Retail food outlets that sell affordable, high quality, nutritious foods can encourage a healthy diet, reducing an individual's risk for chronic diseases, including obesity and diabetes. Higher RFEI has been shown to be correlated with increased obesity in the USA and around the world.

The Retail Food Environment Index (RFEI)

The RFEI is constructed by dividing the total number of fast-food restaurants and convenience stores by the total number of supermarkets and produce vendors (produce stores and farmers markets) in an area (city, county, state). The resulting number describes how much easier it is for residents to find and purchase food at retailers selling less healthy options than it is to do the same thing at retailers selling healthy food choices. A score of less than 1 is ideal.

$$RFEI = \frac{\text{Fast food restaurants} + \text{Convenience stores}}{\text{Supermarkets} + \text{Small Grocery stores} + \text{Produce stands} + \text{Farmers markets}}$$

Characteristics of the food environment

Number, type, size, and location of food stores; availability (supply) of food categories (e.g., fresh fruits); and variety of different items within a category (e.g., different types of fresh fruits); price and quality of food items.

A high-quality food environment is a necessary condition for the adoption of healthy eating behaviors. Access to stores that sell affordable, nutritious food is a prerequisite for adopting a healthful diet. Healthful food strategies should focus on changing food environments to improve overall community health.



Efforts to improve Neighborhood Food Environments

By mapping the retail environment, land use patterns and street network, as well as analyzing local policies and codes relevant to food access, an assessment of the food landscape can help stakeholders make the right decision for their community. Observational measures of the quality of retail food environments, as characterized by availability, accessibility, and pricing, provide a useful method for comparing food environments between neighborhoods. Food Oasis is a metaphor focused on developing innovative, self-sustaining ways to empower residents of food deserts to get better access to healthy foods. Whether we define it as a desert or a swamp, everyone needs easy access to healthy, affordable food. It's a matter of fairness. After all, if we want to have vibrant communities, we should commit to investing in all communities.

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3. Moreno, C., Wang, S., De Rosa, A., & Paine, C. (2005). Neighborhood characteristics associated with the location of food stores and food service outlets. *American Journal of Preventive Medicine*, 39(1), 29-36.

Convegno "Agricoltura, cibo e salute"
Palermo 19-20 Settembre 2014



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³ Laureando in "Imprenditorialità e qualità per il sistema agroalimentare" - Università degli studi di Palermo (PA)

Indagine sul Food Environment nel Comune di Palermo

Tav. 1 - Oreto Freato



Tav. 2 - Oreto Gualdrone



Tav. 3 - Bonagia



Tav. 4 - Villagrazia



Tav. 5 - Falsomiele



Tav. 6 - Falsomiele



Background: Come dimostrato dal numero crescente di ricerche scientifiche effettuate in anni recenti in campo internazionale, la salute e le abitudini alimentari individuali sono influenzate dall'ambiente sociale e fisico che circonda i cittadini. La correlazione tra localizzazione geografica dei negozi alimentari e dei servizi di ristorazione e la dieta individuale costituisce un argomento attuale di dibattito scientifico. La ricerca sull'ambiente alimentare (food environment) è relativamente nuova ma promettente e meritevole di attenzione ed investimenti dal punto di vista delle politiche pubbliche.

Scopi: L'indagine effettuata nell'arco di un trimestre (Maggio-Luglio 2014) ha inteso conseguire una migliore comprensione del food environment urbano - con specifico riferimento alla distribuzione al dettaglio di prodotti alimentari e alle attività dei servizi di ristorazione - nella III Circoscrizione del Comune di Palermo con l'obiettivo di individuare zone urbane carenti in relazione all'accessibilità alle risorse alimentari.

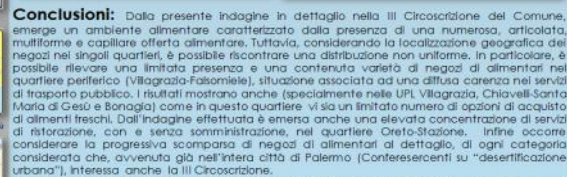
Area di studio: L'area oggetto di indagine è la III Circoscrizione, una suddivisione amministrativa del Comune di Palermo, comprendente i quartieri Villagrazia-Falsomiele e una parte del quartiere Oreto Stazione, con una popolazione complessiva di 74.144 unità (Panomus 2012) e una superficie territoriale di 2034,7 ettari. A Nord la III Circoscrizione confina con il centro storico di Palermo mentre a Sud comprende il confine della città.

Metodi: La raccolta dei dati necessari è stata condotta in campo utilizzando apposite mappe e rilevando ogni negozio riscontrato e le corrispondenti coordinate geografiche. Per la definizione delle categorie di negozi alimentari e luoghi di ristorazione pubblica è stata considerata la "Classificazione delle attività economiche Ateco 2007" (ISTAT). Per creare le mappe di distribuzione geografica dei negozi è stato utilizzato, come strumento descrittivo, il GIS Desktop 2.4.0 con lo scopo di presentare una "istantanea" dell'area studiata. La densità dei negozi alimentari (numero di negozi ogni 1000 persone) è stata usata come una misura della disponibilità e dell'accessibilità ai negozi alimentari. Infine è stato calcolato il "Retail Food Environment Index" (RFEI) dopo aver provveduto ad un raggruppamento delle attività commerciali per categorie omogenee.

Risultati: I risultati ottenuti hanno reso possibile delineare un quadro generale dell'ambiente alimentare della III Circoscrizione. Sono stati riscontrati 304 negozi di prodotti alimentari e luoghi di ristorazione. Ci sono differenze nei numeri delle diverse tipologie di negozi, come era ovvio aspettarsi. Questa diversità è mostrata in Fig. 1, mentre la Fig. 2 mostra i risultati ottenuti dopo aver raggruppato le attività commerciali in sei categorie omogenee. La densità per ogni tipologia di negozio è rappresentata nella tabella 1; il diagramma in figura 3 mostra le categorie di attività commerciali prevalenti nella III circoscrizione. La Tabella 1 mostra la mappa ottenuta utilizzando il software GIS Desktop 2.4.0. I dettagli sulla localizzazione delle varie attività commerciali nelle diverse Unità di Primo Livello della III Circoscrizione sono presentati nelle tavole 2-7. In figura 4 è mostrata, infine, assieme alla procedura adottata, il risultato del calcolo dell'indice RFEI.



Tav. 1 - Localizzazione dei negozi di alimentari e dei luoghi di ristorazione pubblica nella III Circoscrizione



Conclusioni: Dalla presente indagine in dettaglio nella III Circoscrizione del Comune, emerge un ambiente alimentare caratterizzato dalla presenza di una numerosa, articolata, multiforme e capillare offerta alimentare. Tuttavia, considerando la localizzazione geografica dei negozi nei singoli quartieri, è possibile riscontrare una distribuzione non uniforme. In particolare, è possibile rilevare una limitata presenza e una contenuta varietà di negozi di alimentari nel quartiere periferico (Villagrazia-Falsomiele), situazione associata ad una diffusa carenza nei servizi di trasporto pubblico. I risultati mostrano anche (specialmente nelle UPL Villagrazia, Chioveti-Santa Maria di Gesù e Bonagia) come in questo quartiere vi sia un limitato numero di opzioni di acquisto di alimenti freschi. Dall'indagine effettuata è emersa anche una elevata concentrazione di servizi di ristorazione, con e senza somministrazione, nel quartiere Oreto-Stazione. Infine occorre considerare la progressiva scomparsa di negozi di alimentari al dettaglio, di ogni categoria considerata che, avvenuto già nell'intera città di Palermo (Conferesercenti su "desertificazione urbana"), interessa anche la III Circoscrizione.

Con il presente lavoro, si spera, venga fornito uno stimolo per sensibilizzare la coscienza dei cittadini e delle autorità locali nei confronti dei problemi relativi all'accessibilità in campo alimentare al fine di rendere la pianificazione alimentare una pratica diffusa e costante in ambito urbano.

Fig. 1 - Numero di negozi alimentari per categorie ATECO nella III Circoscrizione



Fig. 2 - Numero di negozi alimentari per categorie omogenee



Tab. 1 - Densità (negozi per 1000 persone) delle diverse tipologie di negozi

Tipologia di negozio	Palermo	Stadato
Alimentari non specializzati	10	0,24
Alimentari specializzati	10	0,24
Ristoranti e bar	10	0,24
Alimentari non specializzati	10	0,24
Alimentari specializzati	10	0,24
Ristoranti e bar	10	0,24
Alimentari non specializzati	10	0,24
Alimentari specializzati	10	0,24
Ristoranti e bar	10	0,24
Alimentari non specializzati	10	0,24
Alimentari specializzati	10	0,24
Ristoranti e bar	10	0,24

Fig. 3 - Attività commerciali prevalenti nella III circoscrizione

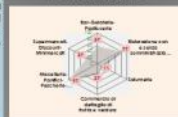


Fig. 4 - Calcolo del Retail Food Environment Index (RFEI)

Categoria	A	B	C	D	E	F
Alimentari non specializzati	10	10	10	10	10	10
Alimentari specializzati	10	10	10	10	10	10
Ristoranti e bar	10	10	10	10	10	10
Alimentari non specializzati	10	10	10	10	10	10
Alimentari specializzati	10	10	10	10	10	10
Ristoranti e bar	10	10	10	10	10	10
Alimentari non specializzati	10	10	10	10	10	10
Alimentari specializzati	10	10	10	10	10	10
Ristoranti e bar	10	10	10	10	10	10
Alimentari non specializzati	10	10	10	10	10	10
Alimentari specializzati	10	10	10	10	10	10
Ristoranti e bar	10	10	10	10	10	10

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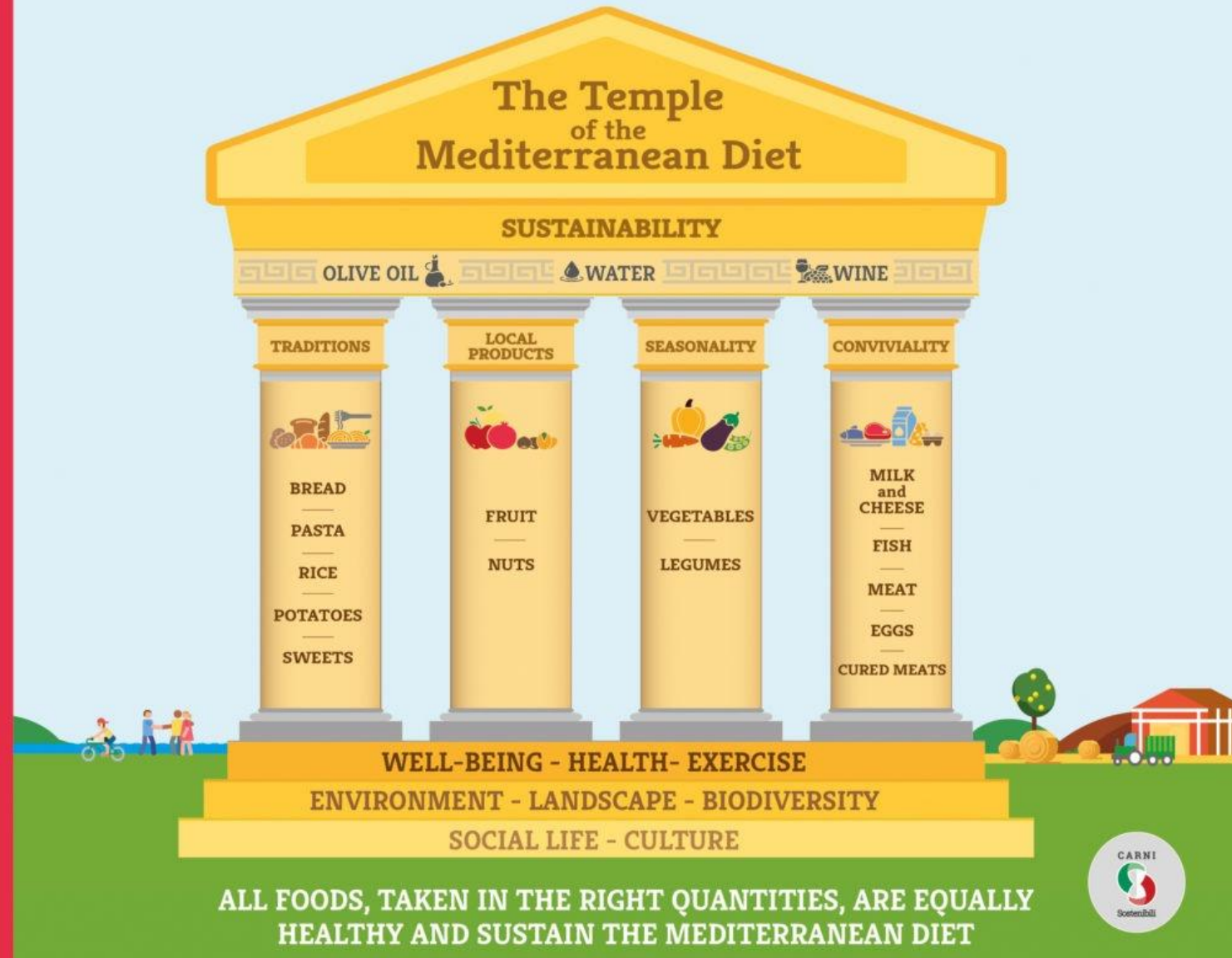
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THE TEMPLE OF THE MEDITERRANEAN DIET

- DIET derived from the Greek word *δίαιτα* (*díaita*) *way of life* •





The Mediterranean Diet

- Is a **lifestyle**
- Enhances **environmental quality and life conditions**
- Is a feature **of the site and of the local food**



The Mediterranean Diet (could be):

A development pattern

- *based on biodiversity*
 - *... on territory*
- *... on the local history and culture*



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