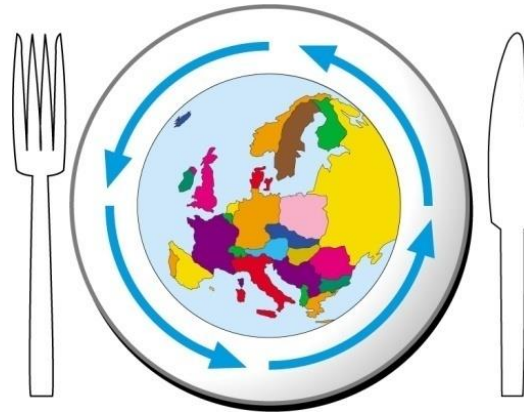


## Sustainable Public Food Service, Economic Social and Environmental Impact



The EU Market, Key Fact and Numbers  
(Some insight of China Food habits trends)

Introduction: Maurizio Mariani  
Eating City Summer Campus 2024

## Who we are:

Risteco-La Ville qui mange (Eating City) was founded in 2017 in France as a continuation of former Consortium Risteco created in Italy in 2005 and inherited the project Eating City ([www.eatingcity.org](http://www.eatingcity.org))

Eating City has been involved in expert groups with international prestige such as: Joint Research Centre – European Commission on the revision of GPP Criteria from 2015 to 2017.

The Eating City Mission is to introduce into business and public discourse ‘**Social Dialogue for a more sustainable food supply chain**’ that aims to help citizens, food businesses, Governments and Cities reconceptualise food issues where feeding people is buttressed by a deeper systemic understanding of the impact of food on health, the environment and the economy.

The key Vision that Eating City holds is to **empower people early in their working lives to become the actors who will shift the paradigm of “business for businesses” to champion “business for people”** which Eating City believes is a maxim for sustainable food systems transformation. This Vision underpins the work of The Eating City International Platform.

The Platform has an international reach with truly global connections working with young professionals, academics and influencers in the food sector. Through Eating City, early career managers, food producers, specialists and students involved in the food system, aged 22 to 32, gain first-hand knowledge of sustainable food systems and how to implement them.

While its principle aim is to stimulate social and business dialogue, it also produces guidance and research for a more sustainable food system in the public sector



## Our Main Projects Now:

### SAPIENS (2020-2024) H2020 -Marie Skłodowska-Curie - Risteco is a Partner Organization

SAPIENS will develop the scientific analyses needed for enhancing SPP and provide buyers in the public sector with tools to procure sustainably. SF4C will benefit from this research project particularly under WP5, regarding tender criteria on protecting human rights and dignity, and design and implementation of policies for Social Dialogue for a more Sustainable Food Supply Chain in the catering sector. <https://sapiensnetwork.eu/>

### SCHOOL FOOD 4 CHANGE (2022-2026) H2020 Risteco is Partner and beneficiary

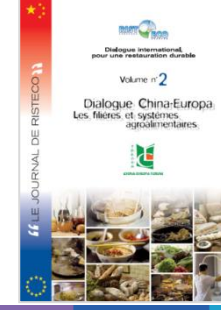
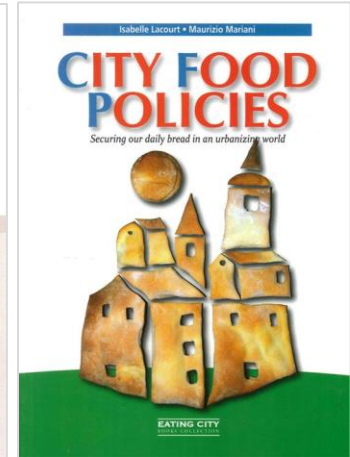
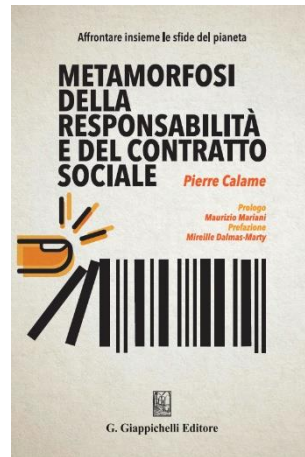
The project aims at engaging schools as catalysts for a food system transformation towards diets that are fair, healthy, and sustainable for both humans and the planet. To reach this aim, SF4C will engage with 3,000 schools, thus impacting 600,000 young people through 16 cities and regional governments across 12 European countries. <https://schoolfood4change.eu/>

### GREENPATH (2023-2026) Europe 2020 Risteco is Partner and beneficiary

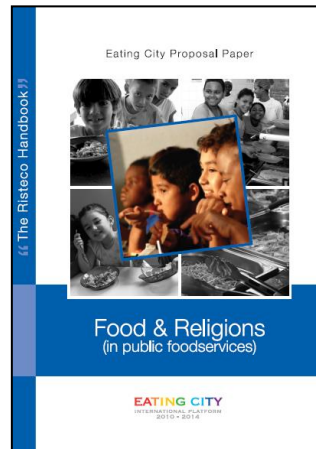
The project addresses the complex and multi-dimensional nature of the planned transition. Based on an enhanced understanding of key issues and challenges influencing the transitions and an in-depth review and synthesis of the latest and most relevant research. To improve the design, governance and implementation of transition strategies.



# Our Main Projects in the Past - The Risteco Handbook From 2005 to 2010



## Our Main Projects in the Past: Other Publication & Events:



## The Eating City Summer Campus:

The core purpose of Eating City summer campus is to build understanding and trust around complex and challenging issues related to urban food systems among young generations in order to create lasting networks, and define real solutions, either small or large, that participants can implement in their future careers for the betterment of society as a whole and for personal growth.

Cultural change for sustainable food systems implementation will require visionary thinking, creativity and leadership to execute. Indeed, many experts who have participated to the numerous Eating City conferences and workshops have indicated training as one of the main lever to achieve the change of paradigm.

That's why we created Eating City Summer Campus experience that brings together young people, researchers, senior professionals working in public & private sectors, opinion and community leaders, to build participant's capacity for learning and leading in the 21st century.

Since 2013, EC has hosted 5–10-day Summer Campus that engage diverse attendees in order to build knowledge and a practitioner network, as well as generate future thought leaders in the food system.

Overall, EC has brought 250 young attendees from 58 countries to re-assess food systems and inspire change

The Campus also serve to create opportunities for long-term professional relationships that lead to an international network of professionals based on sustainable food knowledge.

Video from The Summer Campus



## Definition of Public Procurement

1. Public procurement refers to the process by which public authorities, such as government departments or local authorities, purchase work, goods or services from companies. (EU com)
2. Public procurement refers to the purchase by governments and state-owned enterprises of goods, services and works. As public procurement accounts for a substantial portion of the taxpayers' money, governments are expected to carry it out efficiently and with high standards of conduct in order to ensure high quality of service delivery and **safeguard the public interest**. (OECD)
3. Government agencies often need to purchase goods and services with public resources and for public purposes to fulfill their functions. Such purchases are generally referred to as **government/public procurement**.(WTO)

**Accountability** in procurement is when a company or organization holds someone accountable for the outcomes of their actions. Accountability allows managers to ensure that procurement processes are being followed, and that the correct resources are being used to meet organizational goals.

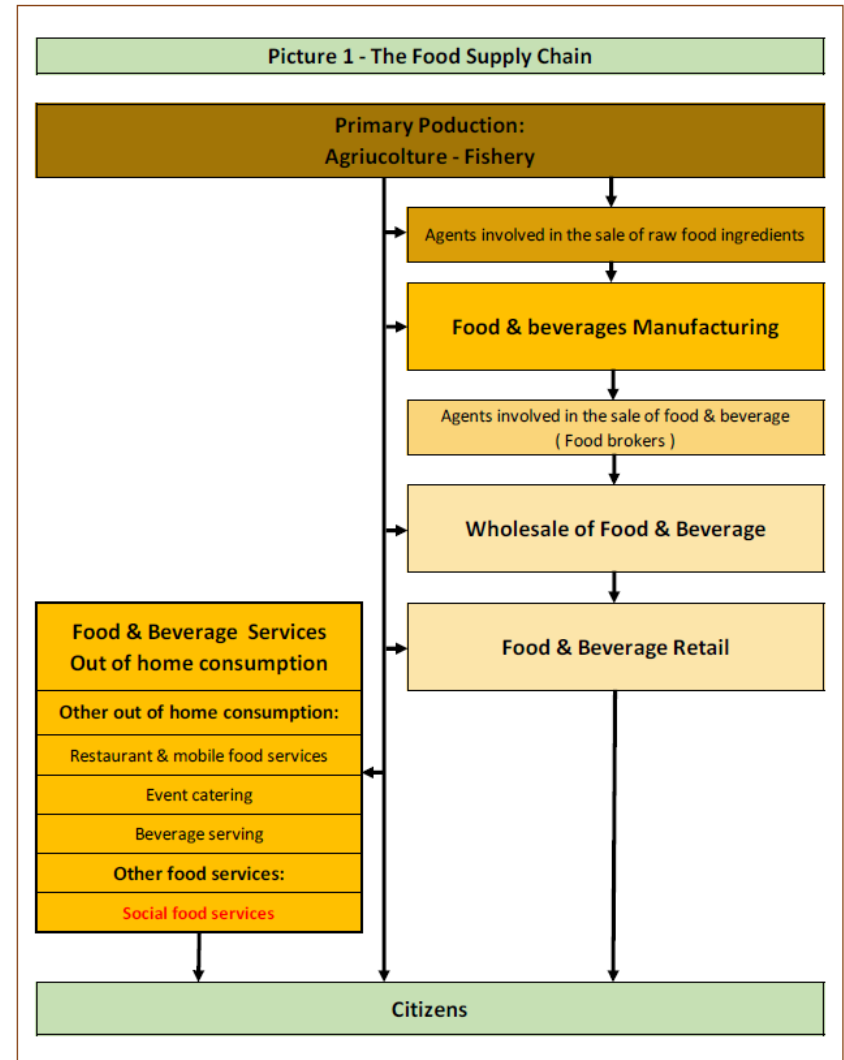


## Food System - Facing a Dilemma

Modern food system is a complex web of farmers, processors, retailers and consumers. In the developed countries, the side of production in the sector has been losing in competitiveness to other industries as globalization trends have triggered outsourcing of food production to countries with lower labour and energy costs.

This has two direct negative results: rising unemployment in some countries and the increase of greenhouse gas emissions due to greater distances in food transportation.

Too many actors are involved in....





## Introduction to Social Food-Services Market

Food Service or catering industry defines those businesses, institutions, and companies responsible for any meal prepared outside home. This sector includes restaurants, school and hospital cafeterias, catering operations, and many other formats.

Modern food system is a complex web of farmers, processors, retailers and consumers, globalization trends have triggered outsourcing of food production to countries with lower labour and energy costs.

This has two direct negative results: rising unemployment in our countries and the increase of greenhouse gas emissions due to greater distances in food transportation.

Our food system has been experiencing a deep transformation with consequences on people's health and the health of the planet. The change in how we produce and consume food has insidiously affected many areas of life – climate change, environment and biodiversity, nutritional quality and human health, labour, water and land use.

Health experts warn that increasing popularity of industrially-made food will lead to negative effects such as obesity and poor health. Shifting from farm-fresh to highly processed food will have direct consequences for health. "Real food" has been mainly replaced by "processed and ultra-processed food".

The foodservice market is split into two distinct groups: Contracted and Self operated; driven by private entities (B&I, Private school, private elderly home....about 30% of the market) or public bodies (mainly schools, hospitals, prisons, military, elderly home...about 70% of the market)

The entire European social foodservice market is estimated at around 81 Billion euro and serves around 85 Million meals per day, thus covering about 17% of the European population.



## Food Industry and Food Services in EU

**Table 2.1** : Food & beverages - Food service - Key Fact & N°, EU-28 Market - 2016

F&B Sector: in E.U. Year 2016	%	Annual Turnover (000)	%	N° Workers	Turnover/ Workers (000)
<b>Food &amp; Beverage Industry (F&amp;B)</b> <sup>*1</sup>	<b>100,00%</b>	<b>€ 1.118.622.400,00</b>	<b>100,00%</b>	<b>4.501.927</b>	<b>€ 248,48</b>
Large Company >250 Workers	51,88%	€ 580.351.800,00	37,72%	1.698.204	€ 341,74
SMEs	48,12%	€ 538.270.600,00	62,28%	2.803.723	€ 191,98
<b>insight SMEs per size:</b>					
0-19 Workers	10,72%	€ 119.885.600,00	23,75%	1.069.089	€ 112,14
20-49 Workers	9,64%	€ 107.865.300,00	11,74%	528.396	€ 204,14
50-249 Workers	27,76%	€ 310.519.700,00	26,79%	1.206.238	€ 257,43
<b>Total Foodservices (Out of Home Cons.)</b>	<b>100,00%</b>	<b>€ 409.019.700,00</b>	<b>100,00%</b>	<b>8.841.473</b>	<b>€ 46,26</b>
<b>Total Social Foodservices (SFS - EU28)</b> <sup>*2</sup>		<b>€ 81.119.601,83</b>		<b>2.081.858</b>	<b>€ 38,97</b>
<i>SFS Contracted (Source: Gira Foodservice)</i>	6,49%	€ 26.562.254,22	7,71%	681.695	€ 38,97
<i>SFS Potential Self Operated (No F&amp;B Market)</i>		<b>€ 54.557.347,61</b>		<b>1.400.163</b>	<b>€ 38,97</b>
Other Food Consumption out of home <sup>*3</sup>	93,51%	€ 382.457.445,78	92,29%	8.159.778	€ 46,87














A market with great potential to create jobs if we reshape the supply chain, helping also to reduce GHG emission

**24 Billion euro is the estimated value of food procurement in social food service**

**If we will be able to shift procurement into 100% local and from small producers we should contribute to create some of 200.000 jobs in Eu and even more if we will create logistics hub for small farmers**

## The European Market of Social Foodservices

Table 2.2 : The Social Food Service Market - Key Fact & N°, EU-28 - 2016

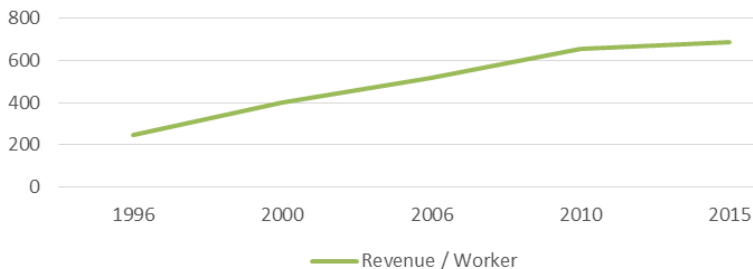
Country		Contracted Market					Self Operated	Total Social Foodservices Market				
EU Country	Population 2017	Meals in Contract year 2016	Estimation Meals per Day	Contracted Market Value	Workers (HDC)	Contracted Market Penetr. %	Tot Meals SFS Self Oper.	Tot Meals SFS	Potential Market Value	Tot Meals per day	Daily Meals /pop.tot	Workers (HDC)
 AT	8.772.865	68.500.000	269.818	€ 244.000.000,00	6.262	27,00%	185.203.704	253.703.704	€ 903.703.703,70	999.325	11,39%	23.193
 BE	11.365.834	149.000.000	586.903	€ 672.000.000,00	17.246	31,40%	325.522.293	474.522.293	€ 2.140.127.388,54	1.869.118	16,45%	54.924
 DK	5.748.769	70.000.000	275.726	€ 389.000.000,00	9.983	18,30%	312.513.661	382.513.661	€ 2.125.683.060,11	1.506.701	26,21%	54.554
 FI	5.503.297	108.000.000	425.406	€ 565.000.000,00	14.500	22,10%	380.687.783	488.687.783	€ 2.556.561.085,97	1.924.915	34,98%	65.612
 FR	67.024.459	1.371.000.000	5.400.295	€ 6.110.000.000,00	95.000	38,00%	2.236.894.737	3.607.894.737	€ 16.078.947.368,42	14.211.304	21,20%	250.000
 DE	82.800.000	612.000.000	2.410.635	€ 3.029.000.000,00	77.736	17,80%	2.826.202.247	3.438.202.247	€ 17.016.853.932,58	13.542.894	16,36%	436.722
 IE	4.774.833	100.000.000	393.895	€ 344.000.000,00	8.828	62,10%	61.030.596	161.030.596	€ 553.945.249,60	634.291	13,28%	14.216
 IT	60.589.445	885.000.000	3.485.968	€ 3.960.000.000,00	84.368	54,00%	753.888.889	1.638.888.889	€ 7.333.333.333,33	6.455.495	10,65%	156.237
 NL	17.081.507	321.000.000	1.264.402	€ 1.236.000.000,00	31.721	38,40%	514.937.500	835.937.500	€ 3.218.750.000,00	3.292.713	19,28%	82.606
 PT	10.309.573	165.000.000	649.926	€ 451.000.000,00	11.574	58,70%	116.090.290	281.090.290	€ 768.313.458,26	1.107.200	10,74%	19.718
 ES	46.528.966	426.000.000	1.677.991	€ 1.730.000.000,00	44.399	42,10%	585.876.485	1.011.876.485	€ 4.109.263.657,96	3.985.727	8,57%	105.460
 SE	9.995.153	114.000.000	449.040	€ 519.000.000,00	13.320	14,50%	672.206.897	786.206.897	€ 3.579.310.344,83	3.096.827	30,98%	91.860
 UK	65.808.573	1.244.000.000	4.900.049	€ 4.130.000.000,00	105.993	37,50%	2.073.333.333	3.317.333.333	€ 11.013.333.333,33	13.066.798	19,86%	282.647
<b>Sub Total</b>	<b>396.303.274</b>	<b>5.633.500.000</b>	<b>22.190.054</b>	<b>€ 23.379.000.000,00</b>	<b>600.000</b>	<b>32,74%</b>	<b>11.044.388.413</b>	<b>16.677.888.413</b>	<b>€ 71.398.125.916,64</b>	<b>65.693.307</b>	<b>16,58%</b>	<b>1.832.366</b>
<b>Other Eu (28)</b>	<b>115.501.814</b>	<b>1.591.627.108</b>	<b>6.269.334</b>	<b>€ 3.183.254.215,17</b>	<b>81.695</b>	<b>32,74%</b>	<b>3.269.110.847</b>	<b>4.860.737.955</b>	<b>€ 9.721.475.909,12</b>	<b>19.146.186</b>	<b>16,58%</b>	<b>249.493</b>
<b>Total</b>	<b>511.805.088</b>	<b>7.225.127.108</b>	<b>28.459.388</b>	<b>€ 26.562.254.215,17</b>	<b>681.695</b>	<b>37,50%</b>	<b>14.313.499.260</b>	<b>21.538.626.368</b>	<b>€ 81.119.601.825,76</b>	<b>84.839.493</b>	<b>16,58%</b>	<b>2.081.858</b>

# Evolution of italian social foodservices market 1996 to 2015 segment :Food processor

**Table 4.1** : Food & beverages Manufacturing - a small sample of manufacturers working with SFS companies, Italian Market -1996 2016

Analysis of the income statement (P&L)										
F&B Manufacturers										
data in Euros/1000										
	1996 %		2000 %		2006 %		2010 %		2015 %	
Revenue	459.876		1.381.124		1.769.808		2.512.852		2.993.167	
Products costs	284.220	61,80%	969.946	70,23%	1.198.487	67,72%	1.716.202	68,30%	2.129.024	71,13%
Labour Costs	55.332	12,03%	109.328	7,92%	136.990	7,74%	182.698	7,27%	192.966	6,45%
Amm & Depreciation	13.978	3,04%	31.589	2,29%	48.989	2,77%	54.826	2,18%	52.652	1,76%
EBITDA	31.682	6,89%	47.133	3,41%	56.294	3,18%	75.477	3,00%	106.744	3,57%
EBIT (Food Manufacturers)	30.224	6,57%	43.242	3,13%	29.437	1,66%	47.083	1,87%	54.092	1,81%
Net Profit	13.173	2,86%	17.957	1,30%	12.274	0,69%	5.841	0,23%	14.837	0,50%
<b>Indicators:</b>										
N° of workers (Hdc)	1.864		3.433		3.430		3.847		4.363	
Average Worker Cost	30		32		40		47		44	
Revenue / Worker	247		402		516		653		686	

Fig. 1 -F&B Manufacturing - Keuro  
Revenue/Workers



Observing these data we can understand the industrialization process. The «contribution on sales» for each workers has shift from **247** Keuro to **686** K euro; despite this process the profit has shift (EBIT = from 6,57% to 1,81%)

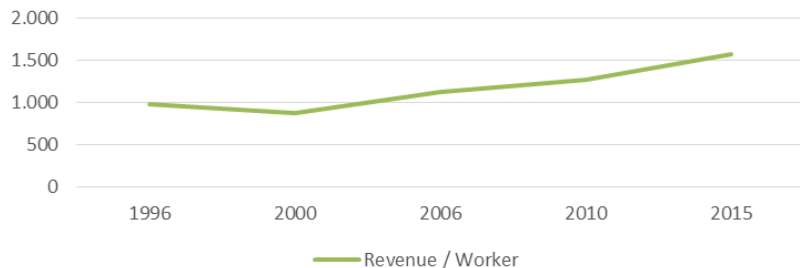
The major issue is related to products costs. (from 61,8 % to 71,13%) not only due to increased costs but to also in reducing sales price to be more competitive in face of new buyers...(The middle man)

# Evolution of italian social foodservices market 1996 to 2015 segment : Food Distributor (wholesales and logistic platform)

**Table 4.2 : F&B Wholesales** - a small sample of suppliers working with SFS companies, Italian Market -1996 2016

<b>Analysis of the income statement (P&amp;L)</b>											
<b>F&amp;B Wholesale Distributors</b>											
<b>data in Euros/1000</b>											
	<b>1996 %</b>		<b>2000 %</b>		<b>2006 %</b>		<b>2010 %</b>		<b>2015 %</b>		
Revenue	128.960		691.660		1.221.148		1.424.547		1.766.597		
Products costs	110.961	86,04%	551.031	79,67%	962.635	78,83%	1.120.679	78,67%	1.400.616	79,28%	
Labour Costs	5.394	4,18%	31.191	4,51%	41.328	3,38%	48.202	3,38%	48.001	2,72%	
Amm & Depreciation	1.434	1,11%	10.264	1,48%	10.140	0,83%	19.823	1,39%	21.812	1,23%	
EBITDA	4.645	3,60%	35.260	5,10%	61.692	5,05%	67.601	4,75%	126.721	7,17%	
EBIT (Wholesale)	3.145	2,44%	30.662	4,43%	68.331	5,60%	73.902	5,19%	104.909	5,94%	
Net Profit	897	0,70%	7.293	1,05%	33.662	2,76%	40.892	2,87%	70.350	3,98%	
<b>Indicators:</b>											
N° of workers (Hdc)	131		786		1.089		1.123		1.118		
Average Worker Cost	41		40		38		43		43		
Revenue / Worker	984		880		1.121		1.269		1.581		

Fig 2 -F&B Wholesale - Keuro  
Revenue/Workers



That's the s.c. «Middle man» is the winner of this «game» of industrialization....

Products cost % has been reduced from 86% to 79%

And profit (EBIT from 2,44% to 5,94%)

This Business it is quite recent (laste 2 decade) and it is growing till today since social foodservices is reducing value of meal cost despite quality, labor and environmental impact.

Large central kitchens versus small kitchens in consumption places

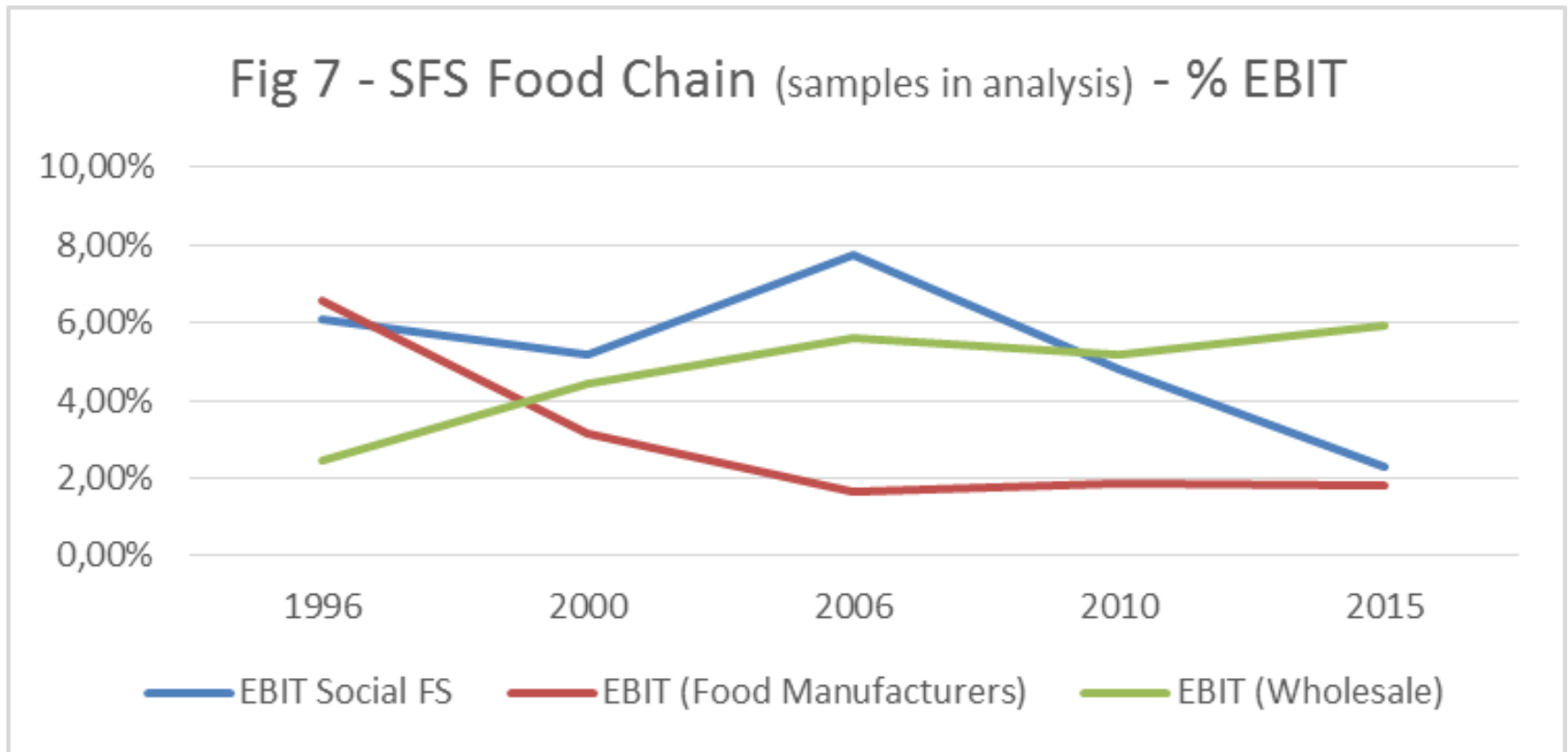
## Evolution of italian social foodservices market 1996 to 2015 segment : Foodservices operator

**Table 4.4 : Social Food Service providers** - a medium sample of companies working at 100% into SFS in the Italian Market -1996 2016

Analysis of the income statement (P&L) SAMPLE 2										
Social Food Service (SFS) Private Contractors (With 100% of turnover on SFS market) - Sample of 20% of the total italian market										
data in Euros/1000	1996 %		2000 %		2006 %		2010 %		2015 %	
Revenue on FS	230.209		384.328		653.006		749.180		880.259	
Products costs for FS	85.638	37,44%	141.113	36,20%	237.720	35,55%	261.456	34,36%	300.080	33,33%
Labour Costs	99.282	43,41%	157.166	40,32%	269.363	40,28%	316.608	41,61%	383.716	42,62%
Amm & Depreciation	8.510	3,72%	18.758	4,81%	24.328	3,64%	29.344	3,86%	27.292	3,03%
Added Value	140.528	61,44%	192.374	49,35%	319.913	47,84%	366.906	48,22%	431.853	47,97%
EBITDA	17.445	7,63%	33.931	8,70%	48.588	7,27%	55.734	7,32%	48.137	5,35%
EBIT Social FS	13.964	6,11%	20.141	5,17%	51.931	7,77%	36.378	4,78%	20.845	2,32%
Net Profit	4.240	1,85%	8.536	2,19%	29.241	4,37%	14.950	1,96%	13.231	1,47%
<b>Indicators:</b>										
N° of workers actual	5.489		9.410		14.033		15.846		19.181	
Average Worker Cost	18		17		19		20		20	
Revenue / Worker	42		41		48		48		47	
Workers Equiv -Base 1996	5.489		9.356		16.048		18.261		21.607	
<b>Job Lost (on this sample)</b>	<b>0</b>		<b>-54</b>		<b>2.015</b>		<b>2.415</b>		<b>2.426</b>	













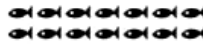

Results: Food cost from 37,44 % to 33,33% - lost of workers -2426 only in this sample and more then 10.000 in Italian social foodservices - EBIT from 6,11 % to 2,32%

## Evolution of italian social foodservices market 1996 to 2015 segment :Foodservices operator



## Meals ingredients, talking about Fish!



FISHERY	LARGE SCALE 	SMALL SCALE 
	BENEFITS	
Subsidies	\$\$\$\$\$ 25-27 billion	\$ 5-7 billion
Number of fishers employed	 about 1/2 million	 over 12 million
Annual catch for human consumption	 about 30 million t	 same: about 30 million t
Annual catch reduced to fishmeal and oils	 35 million t	 Almost none
Annual fuel oil consumption	 about 37 million t	 about 5 million t
Catch per tonne of fuel consumed	 1-2 t	 4-8 t
Fish and other sealife discarded at sea	 8-20 million tonnes	 Very little



# Part Two

# Food & Public Health



## Public health, ecosystem and food habits in the urban environment

By now, the social, environmental and health related challenges of the existing food system are well known and documented.

In a system where, a big part of the 500 Kg of municipal waste per capita/year is related to food (around 150 Kg per capita year). Additionally, food about 30 % is accountable of round 30% of total greenhouse gas emissions.

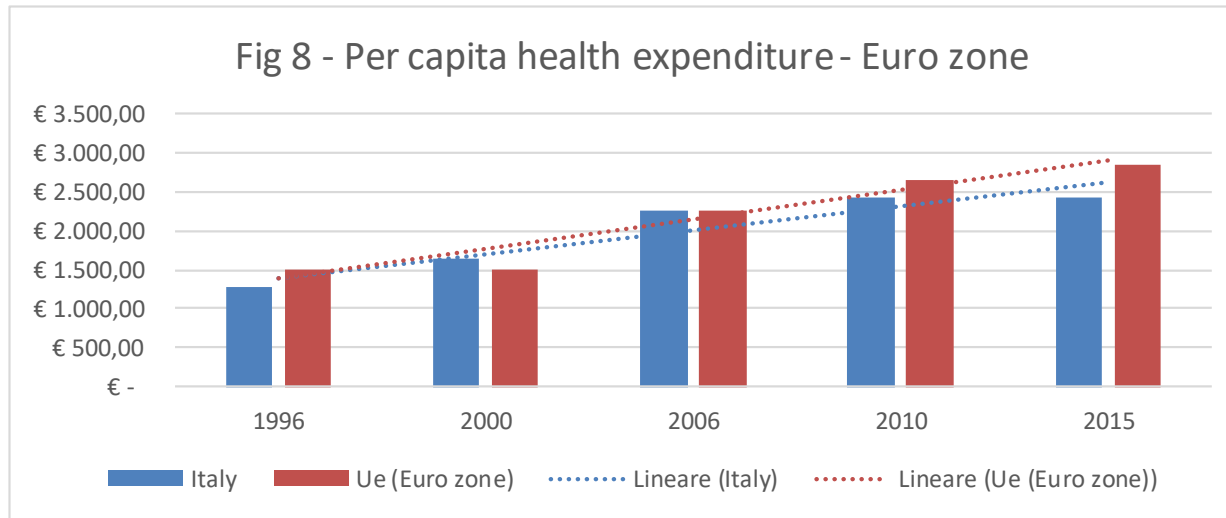
We must begin to think seriously about the fact that food today leads to major related disease that rivals smoking for its effect on the health of population. It hurts us, as Hippocrates would say, instead of being the medicine. Obesity and its related diseases are more prevalent among groups with low socioeconomic status. Those with lower incomes tend to consume more processed meat, saturated fat and sugar, and those with higher incomes, more fruit and vegetables. In addition, poorer population groups usually have less access to sport and fitness facilities, which limits the exercise they take.

The cost to society from inadequate food habits and obesity is enormous. Up to 6% of health costs in the European Region are due to obesity in adults. People suffering from obesity or from a chronic disease are also more likely to be absent from work due to ill-health.

## Expenditure on health – per capita 1996 -2015

Table 5.1 : Current "per capita" all expenditure on health - Euro zone -source OECD

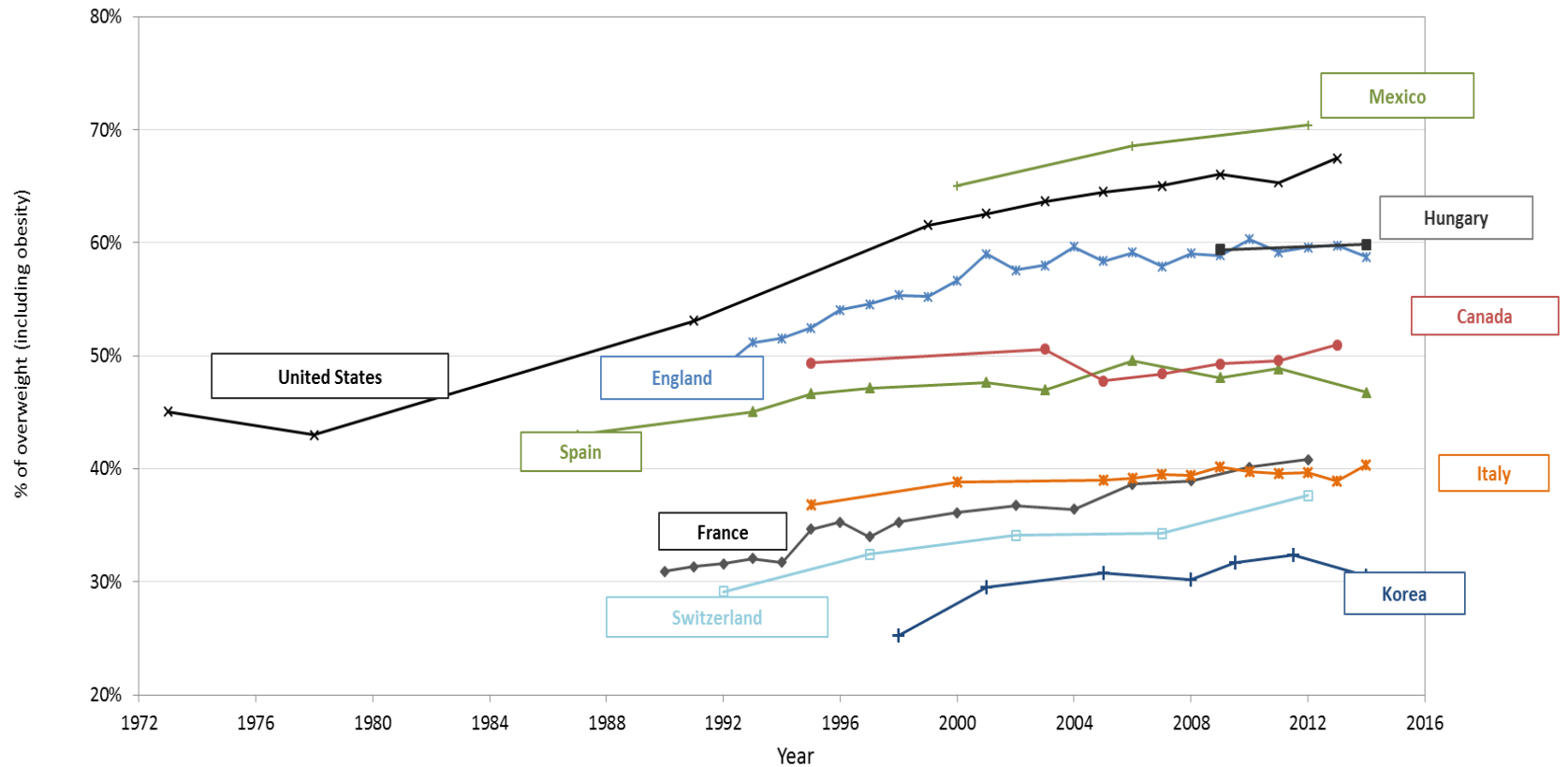
Country/Year	1996	2000	2006	2010	2015
Italy	€ 1.277,47	€ 1.649,76	€ 2.252,96	€ 2.423,55	€ 2.437,47
Ue (Euro zone)	€ 1.502,21	€ 1.514,52	€ 2.251,33	€ 2.649,79	€ 2.847,59



In the same period of analysis of the social foodservice market it should also be considered how much health spending could have increased (health expenditure). According to the data published by the OECD on the trends in healthcare spending it can have noticed that from 1996 to 2016 the same has undergone a significant increase from 7 to 8.3 % of GDP and same in the per capita health expenditure (see Table 5.1)

## Trend of obesity (including overweight all ages)

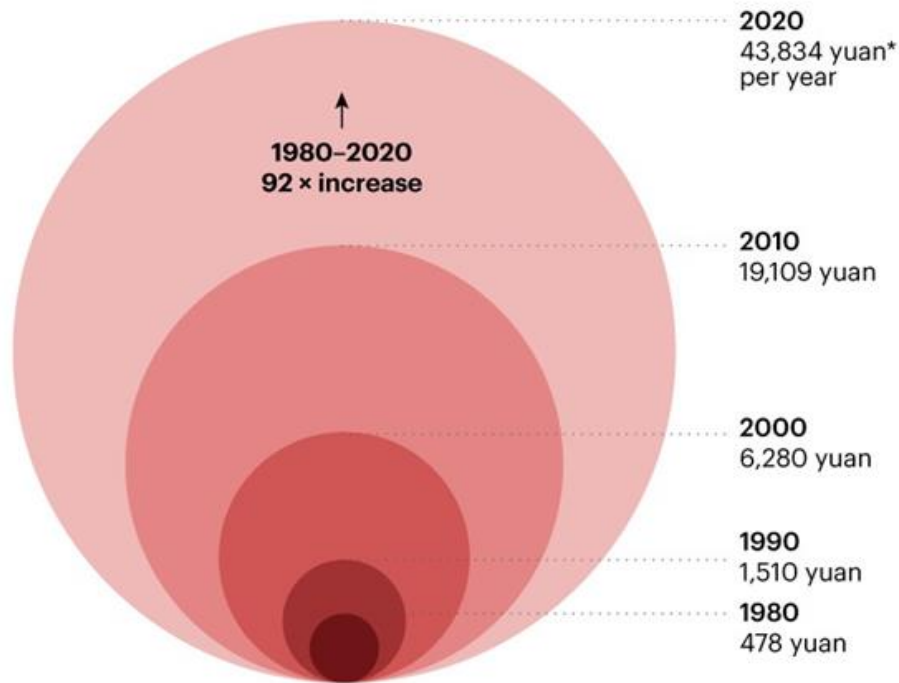
Dati OECD



## Disposable Income in China

### MONEY TO SPEND

The annual disposable income of China's urban middle class has increased hugely in recent decades (inflation not taken into account).

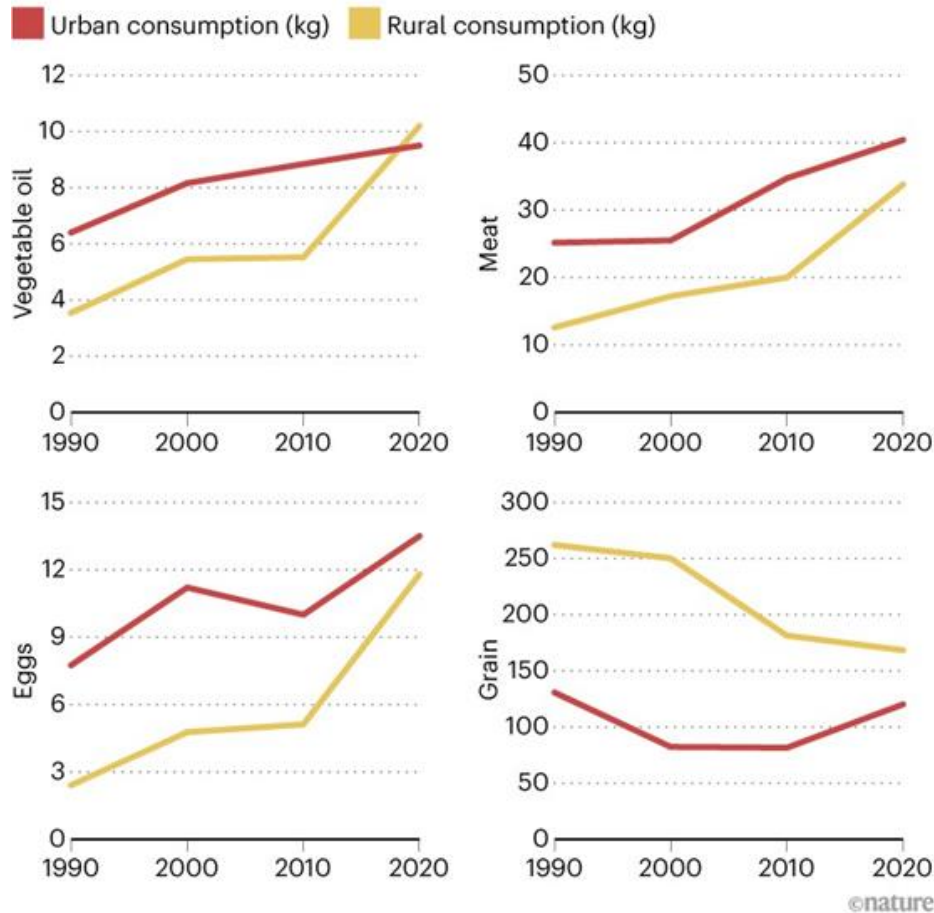


Since China's economic reform in the late 1970s, people's disposable income — the amount of money left to spend and save after taxes — **has increased by more than 130 times for both rural and urban households** (not taking inflation into account). In 1978, an urban household had an average of 343 yuan (US\$202 at the time) in disposable income. By 2021, it was more than 47,000 yuan (\$7,288 at 2021 rates; see 'Money to spend'). The growth in income led to a richer middle class and a dietary shift in both rural and urban China

## Shifting Eating Habits

### A CHANGING PLATE

Yearly consumption statistics of foodstuffs show that both China's urban and rural populations are replacing grain consumption with a more varied diet.



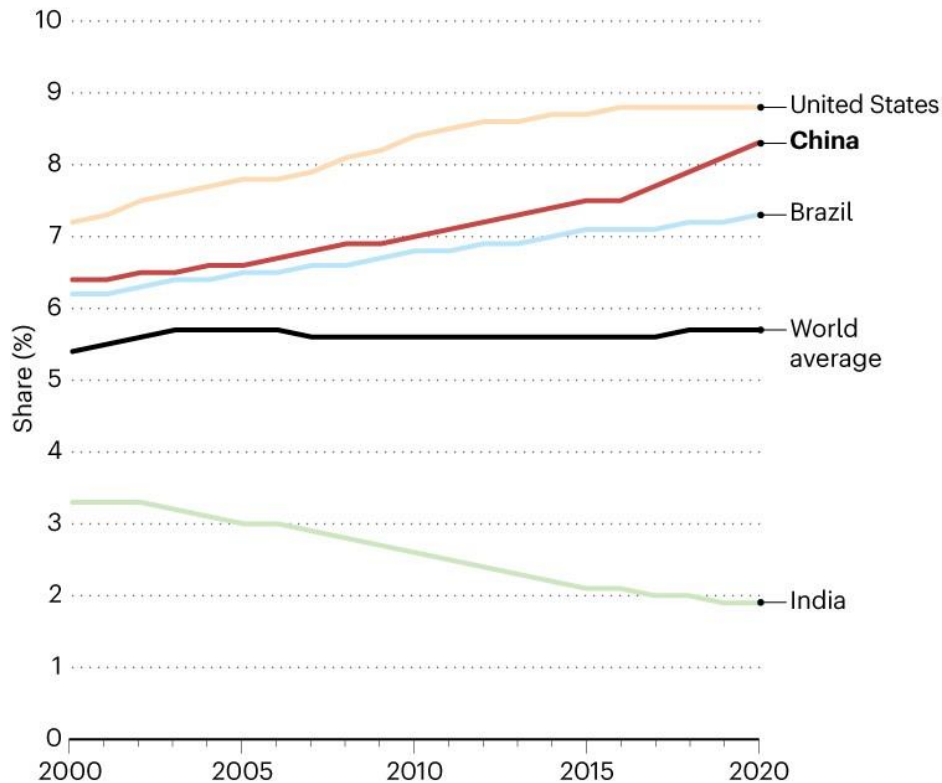
Over the past 30 years, both urban and rural households saw a reduction in overall grain consumption — of 35% in rural communities and 4.5% in urban ones — as other foods became more prominent, National nutrition surveys have estimated that the average energy intake from carbohydrates declined from 62.6% in 1991 to 50.6% in 2015, and during the same period, the average proportion of energy intake from fat grew from 24.0% to 35.8% — a figure similar to that in Western countries such as the United States.

Source: <https://data.stats.gov.cn>

## Trend of obesity (including overweight) in China

### GROWING PAINS

China has an increasing share of children under the age of five who are overweight or obese.



China has one of the highest proportions worldwide of overweight and obesity among children under five. About 8.3% of people of this age group in China — roughly 5 million children — were overweight or obese in 2020, and the proportion is still rising. The figure is greater than in countries such as Brazil (7.3%) but slightly smaller than in the United States, where the proportion is 8.8%. The global figure is 5.7% (see ‘Growing pains’).

Source: WHO, Global Health Observatory

# Part Three

## Food Environmental, Social & Health challenges





## Environmental challenge related to food habits

By now, the environmental challenges of the actual food system are well-known and documented.

We need to transition to a healthier and more sustainable diet by shifting towards a plant-based diet instead of an animal-based diet.

As can be seen from reading the following three tables related to:

- Global meat production
- Deforestation
- The largest meat exporters
- The largest importers of meat from Brazil

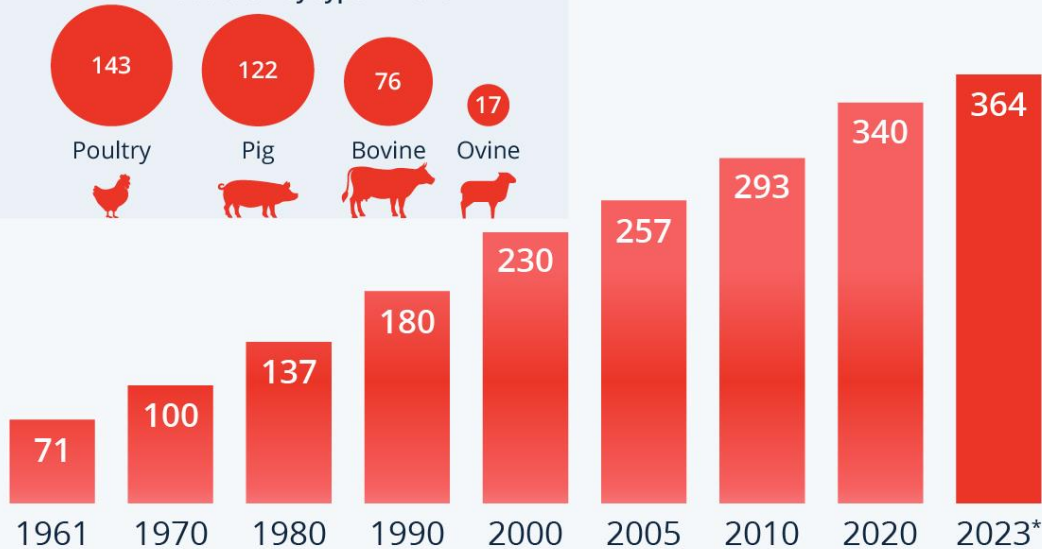
A global challenge faces us to reduce deforestation and greenhouse gas emissions.



# The Growing Global Hunger For Meat

Worldwide annual production of meat  
(in million tonnes - carcass weight equivalent)

Production by type in 2023\*



\* Forecast  
Source: FAO



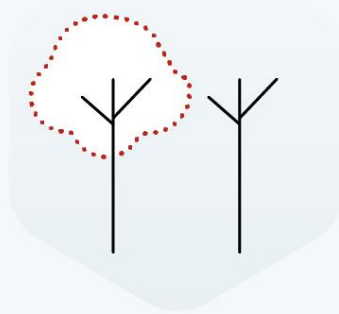
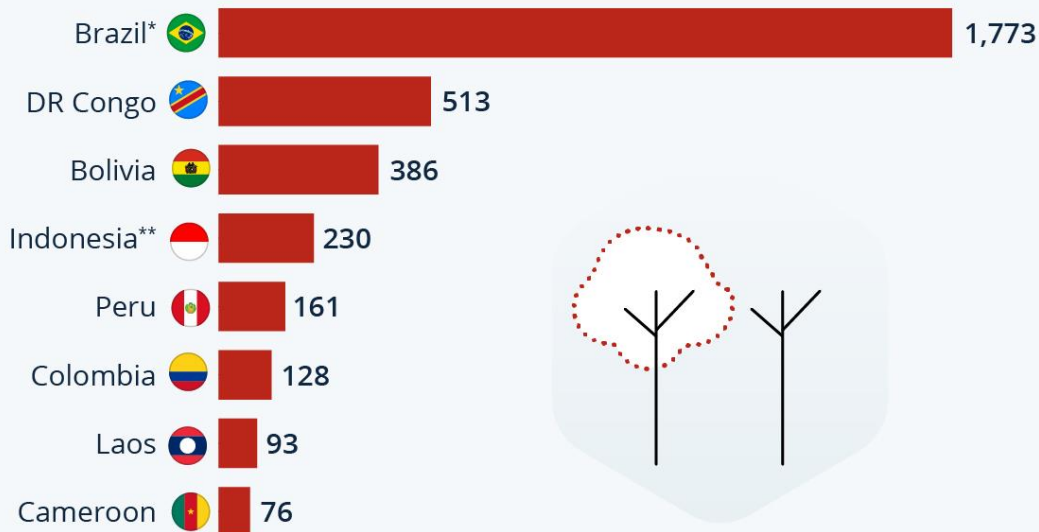
Global meat production has increased fivefold since the 1960s, according to the FAO. The upward trend in production continues, with the FAO forecasting around 364 million tons of meat produced globally by 2023.

Lower production costs of meat due to increased animal feed production have led to a rise in demand for different types of meat, particularly in populous Asian countries.

Pork and poultry are the most produced meats in the world and are the focus of Asia's meat-producing market, which is the largest in the world.

# Where Most Primary Forest Is Lost

Countries with the largest area of primary forest loss in 2022 (in thousand hectares)



\* Humid primary forest

\*\* Much of the primary forest loss in Indonesia according to the GFW analysis is within areas that Indonesia classifies as secondary forest and other land cover

Source: World Resources Institute's Global Forest Review



According to the latest available data of the World Resources Institute's Global Forest Review, Brazil saw by far the largest amount of primary forest loss in 2022 of any country worldwide. That year, more than 1.77 million hectares of humid primary forest is estimated to have been destroyed. This equates to around 43 percent of the world total.

**Up to 80% of the is food and bio fuels related (FAO)**

The EU is planning new regulations that will require companies to prove they haven't grown produce on deforested land since 2020. This will impact smallholder farmers, who produce 42% of Indonesia's palm oil.

## Public health, ecosystem and food habits in the urban environment

We must begin to think seriously about the fact that food today leads to major related disease that rivals smoking for its effect on the health of population. It hurts us, as Hippocrates would say, instead of being the medicine. Obesity and its related diseases are more prevalent among groups with low socioeconomic status. Those with lower incomes tend to consume more processed meat, saturated fat and sugar, and those with higher incomes, more fruit and vegetables. In addition, poorer population groups usually have less access to sport and fitness facilities, which limits the exercise they take.

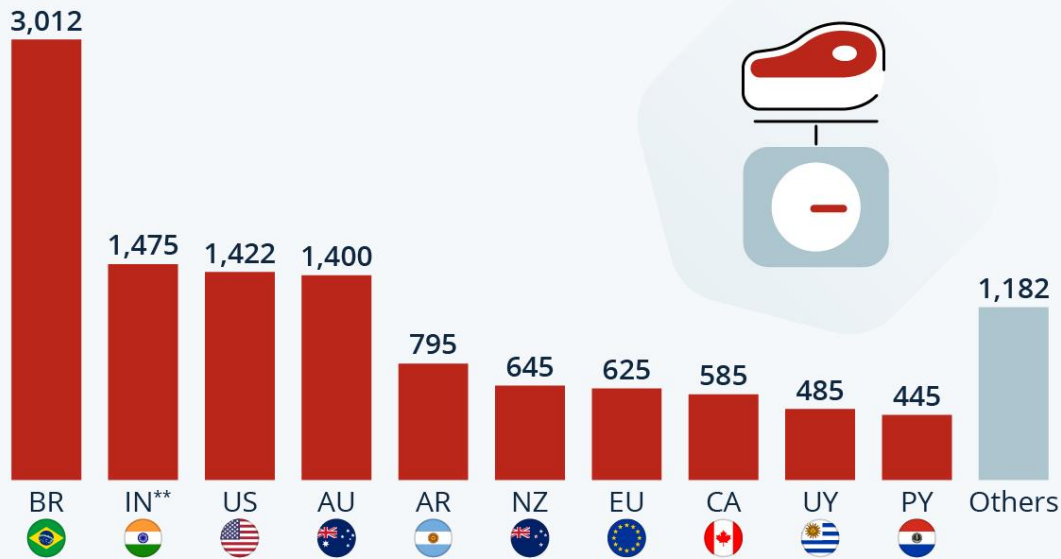
The cost to society from inadequate food habits and obesity is enormous. **Up to 6% of health costs in the European Region are due to obesity in adults. People suffering from obesity or from a chronic disease are also more likely to be absent from work due to ill-health.**

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# The Biggest Exporters of Beef in the World

Volume of beef and veal exported in 2023, by country (in thousands of tons)\*



\* As of April 2023

\*\* Exports "carabeef" or buffalo meat

Sources: U.S. Department of Agriculture, Foreign Agricultural Service



**statista**

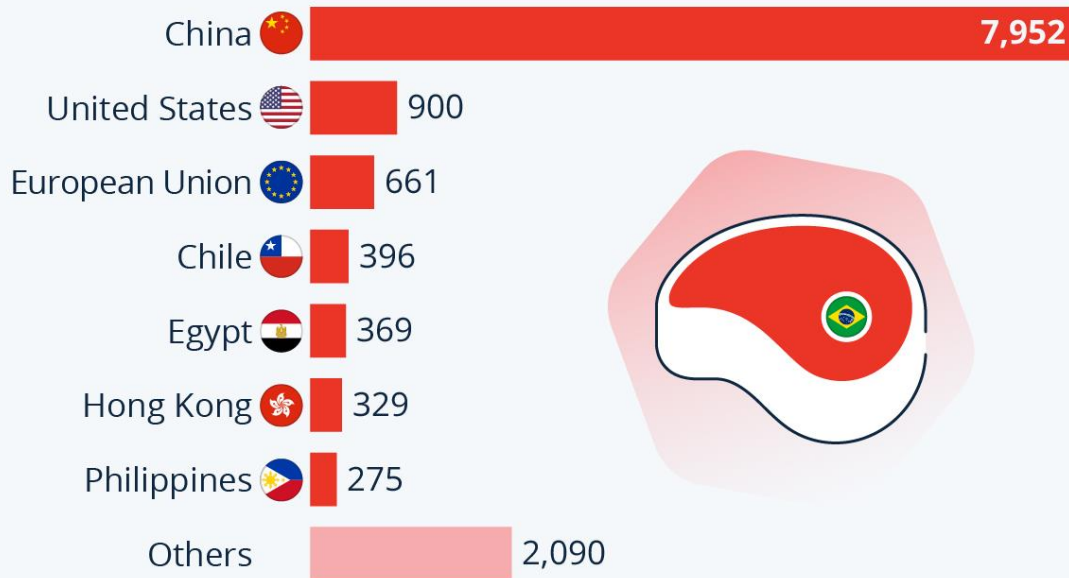
An investigation by Global Witness has linked three major meat producers - JBS, Minerva, and Marfrig - to illegal deforestation in Brazil's Cerrado plains.

The EU Deforestation Regulation will require companies to prove their produce was not grown on deforested land after 2020. If they fail to do so, they will face heavy fines.

The law will affect products like beef, coffee, palm oil, and soy. Brazil was the biggest beef exporter in 2023, followed by India, the US, and Australia. The US is the country that produces the most beef. Smallholder farmers may be penalized by the new EU regulation.

# Who's Driving Brazilian Beef Exports?

Exports of beef and veal from Brazil in 2022, by destination (in million U.S. dollars)



Sources: Brazilian Association of Meat Exporting Industries; Brazil's Secretariat of Foreign Trade; Brazil's Ministry of Industry, Foreign Trade and Services

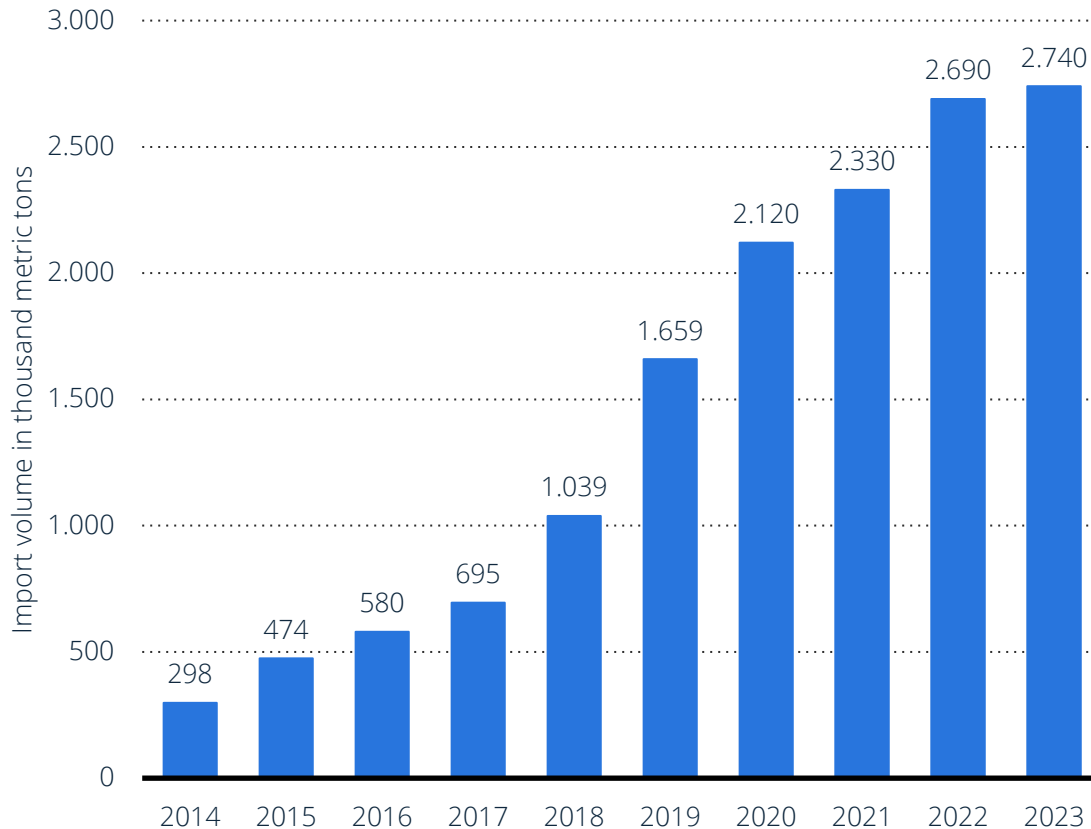


Brazil is the world's largest exporter of beef, and China, the United States, and the European Union are its biggest importers.

China is the largest, importing nearly \$8 billion worth of beef and veal in 2022 due to rising incomes and changing dietary habits.

The US and EU follow, importing around \$900 million and \$661 million worth of beef and veal, respectively.

## Volume of beef imported to China from 2014 to 2023 (in 1,000 metric tons)

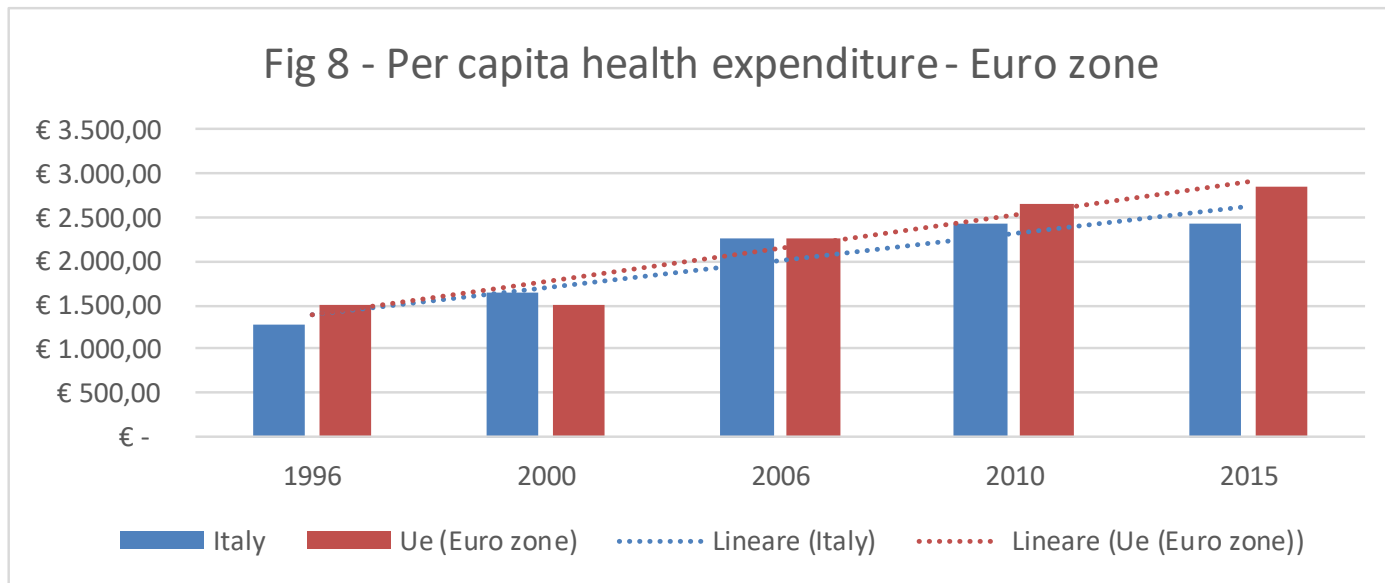


China is the world's largest consumer meat market. Meat consumption in China has increased steadily since the early 1990s. In 2021, the Chinese consumed almost 100 million tons of meat—27 percent of the world's total and twice the total consumption in the United States.

## Expenditure on health – per capita 1996 -2015

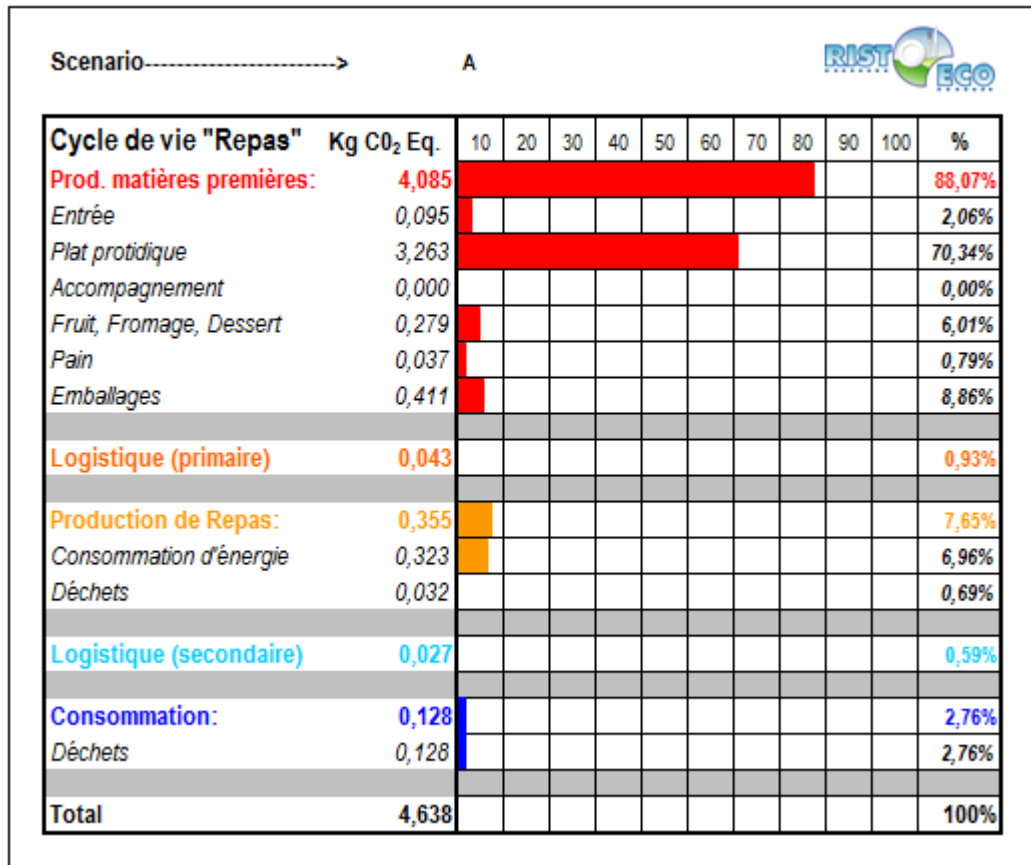
Table 5.1 : Current "per capita" all expenditure on health - Euro zone -source OECD

Country/Year	1996	2000	2006	2010	2015
Italy	€ 1.277,47	€ 1.649,76	€ 2.252,96	€ 2.423,55	€ 2.437,47
Ue (Euro zone)	€ 1.502,21	€ 1.514,52	€ 2.251,33	€ 2.649,79	€ 2.847,59





## Meal GHG emissions "Scenario A" = 4,63 Kg CO<sub>2</sub> Equiv.



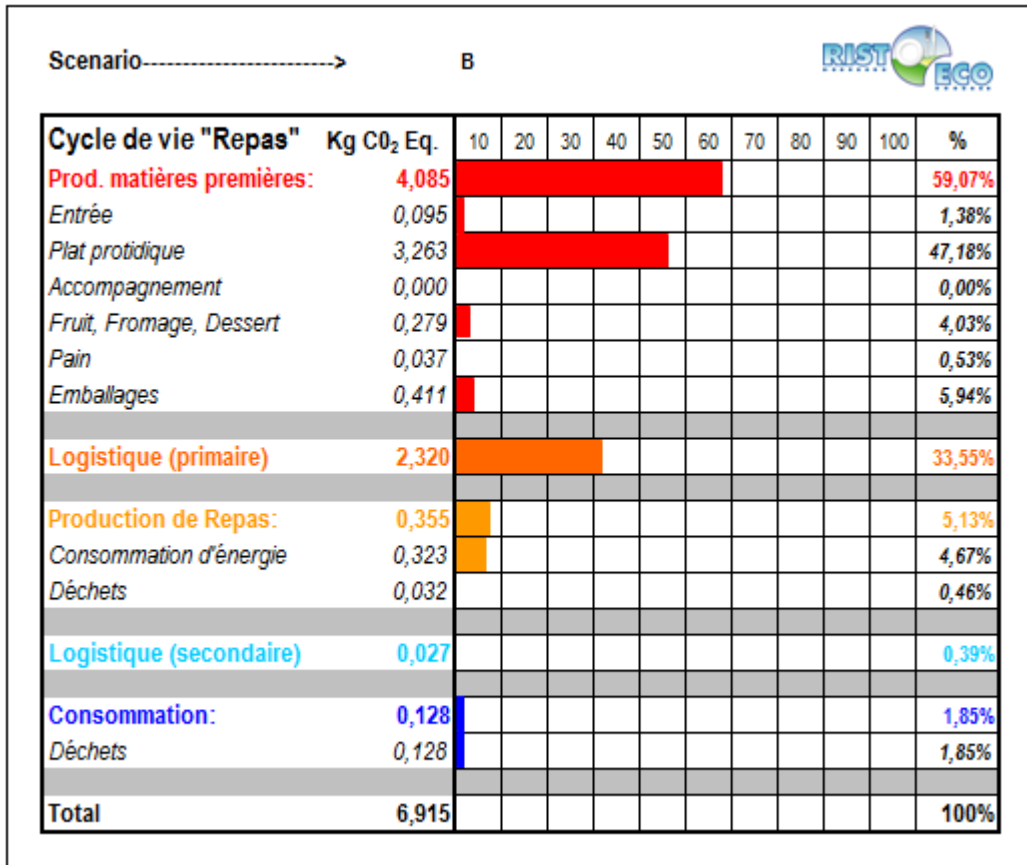
Scenario A:  
Menu including beef meat.

Greenhouse gas calculated for  
foodstuffs transported on road,  
according to their geographical  
origin :

25% = 100 Km  
25% = 500 Km  
25% = 1000 Km  
25% = 1500 Km

Source:  
Study by Risteco

**Meal GHG emissions**  
**"Scenario B" = 6,91 kg CO<sub>2</sub> Equiv.**



Scenario B:

Menu including beef meat:

Greenhouse gas calculated for foodstuffs transported on the road (such as in scenario A) and by plane:

50% as the Mix A

50% 6,000 km by plane

Source:  
Study by Risteco

## Waste in Foodservices per capita

Production et consommation du repas Rest. Hospitalière		
Type de déchets	Gr	%
Organique	350	55,56%
Emballages	164	26,03%
Couverts en plastique	98	15,56%
Indifférencié	18	2,86%
<b>Total par journée d'hôpital/patient</b>	<b>630</b>	<b>100,00%</b>

Production et consommation du repas Secteur Hospitalier		
Type de déchets	Gr	%
Organique	212	56,53%
Emballages	116	31,01%
Couverts en plastique	46	12,27%
Indifférencié	1	0,19%
<b>Total par repas servis au personnel</b>	<b>375</b>	<b>100,00%</b>

Production et consommation du repas Rest. d'Entreprise		
Type de déchets	Gr	%
Organique	185	56,54%
Emballages	121	37,09%
Couverts en plastique	0	0,00%
Indifférencié	21	6,37%
<b>Total par repas distribué</b>	<b>327</b>	<b>100,00%</b>

## Waste in Foodservices per capita

Production et consommation du repas Rest. Scolaire		
Type de déchets	Gr	%
Organique	185	71,15%
Emballages	40	15,38%
Couverts en plastique	0	0,00%
Indifférencié	35	13,46%
<b>Total par repas servi</b>	<b>260</b>	<b>100,00%</b>

Production et consommation du repas Rest. Scolaire		
Type de déchets	Gr	%
Organique	211	74,82%
Emballages	69	24,42%
Couverts en plastique	0	0,00%
Indifférencié	2	0,76%
<b>Total par repas servi</b>	<b>282</b>	<b>100,00%</b>


















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**Each meal consumed out of home =  
250 g of waste**



Labor: artisanal > industrial fishing



FISHERY	LARGE SCALE 	SMALL SCALE 
<b>BENEFITS</b>		
Subsidies	\$\$\$\$\$ 25-27 billion	\$ 5-7 billion
Number of fishers employed	 about 1/2 million	 over 12 million
Annual catch for human consumption	 about 30 million t	 same: about 30 million t
Annual catch reduced to fishmeal and oils	  35 million t	 Almost none
Annual fuel oil consumption	 about 37 million t	 about 5 million t
Catch per tonne of fuel consumed	 =  1-2 t	 =  4-8 t
Fish and other sealife discarded at sea	 8-20 million tonnes	 Very little

## To shift the actual food system paradigm is a challenging issue that need new skills

The **City Foodmaker** is a person who desires and advocates for consistent change in the Regional – City food system he/she operates in. Gathering knowledge, and resources, connecting minds and food dots make that change happen. They have a deep-rooted sense of empathy for others.... More to it, City Food Makers are relentless, tenacious, persons with a strong passion for food and nature, innovative, and with a human-centered approach...

In a nutshell, a City Foodmaker is a person who understands the challenges of the future and is capable of carrying them forward tenaciously; who is a leading actor in change and not just a spectator. City Food Makers are defined by their ability to take ideas into action, they are future innovation leaders.

Food Dots: are all people and organisations with a precise role in the food value chain, such as for e.g.: farmers, fishermen, food processors, butchers, wine producers, nutritionists, gastronomists, cooks, food logistics, food waste management operators....

**And that is why we are here.**



Thanks

**Maurizio Mariani**  
CEO Eating City Platform

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