



# [ENOUGH]

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Dimensions of Food Security  
in Europe

**Elanco**

# The Faces of Food Security



*Disease*

*Development*

*Decisions*

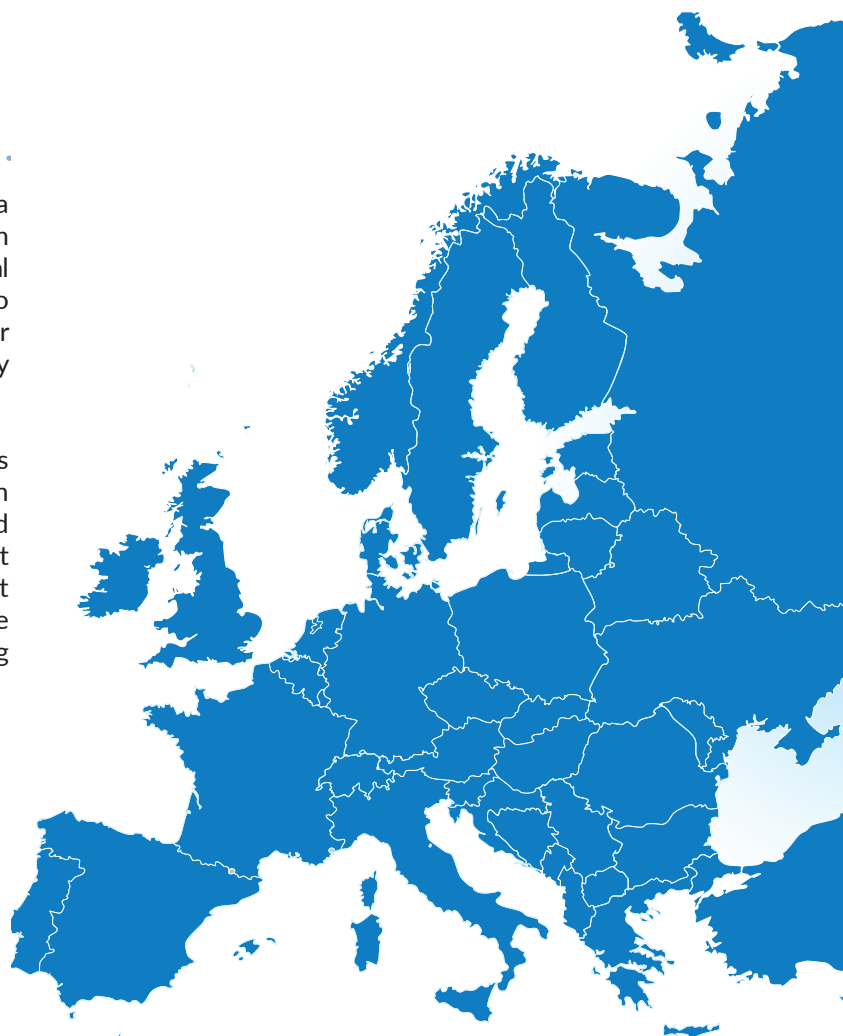
Most people find it hard to associate food insecurity with Europe. The term conjures up images of extreme hunger and malnutrition – families in the developing world whose lives are dominated by the hunt for food and the struggle to ensure their children survive and thrive. Experts rely on indicators like protein supply, nutrition, infrastructure and political stability that help measure these most desperate faces of food insecurity,<sup>1</sup> but fail to grasp its European dimensions.

## The Challenge

It's easier for policy-makers to see the challenge of creating a food-secure world – one where everyone can afford and access an adequate quantity and quality of food – as a matter of international aid, development and national security. But food insecurity is also a growing challenge in Europe. It needs to be at the heart of our debate over the future of agriculture and food, health, sustainability and innovation.

The awareness that food security might be crucial for Europe is starting to find a voice. As EU agriculture ministers met in Milan in September 2014 to discuss global food security, their background report remarked: "The worrying global trends are somehow felt in the EU as well, necessarily implying that food security cannot be taken for granted."<sup>2</sup> It's time to understand exactly how those worrying global trends affect Europe so we can do something about it.

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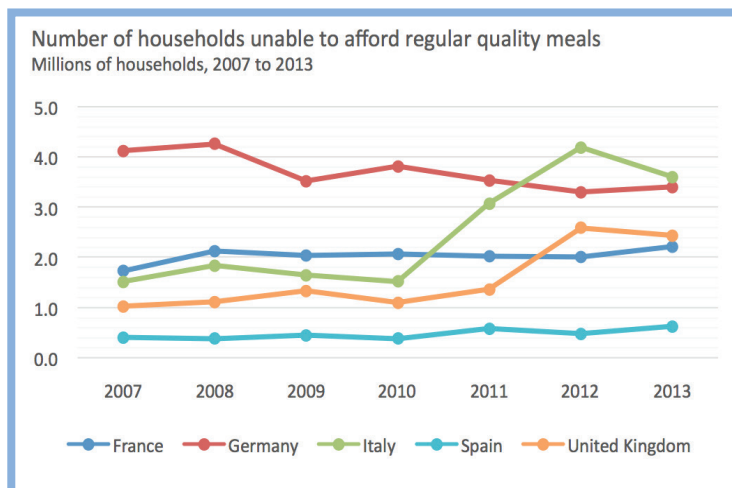


# How Food Security Affects Europe

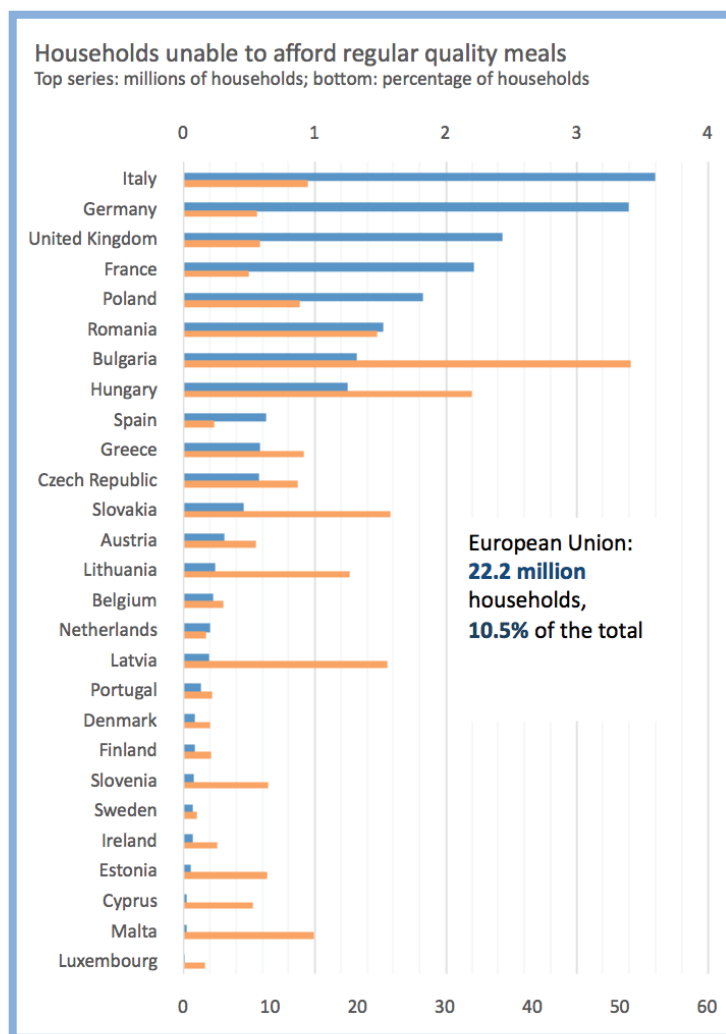
## Dimension 1: A growing number of Europeans struggle to put a meal on the table every day

Food prices in many European countries have risen faster than incomes since the financial crisis, opening an affordability gap that has pushed many families to the edge. Well over 20 million households in the EU say they are unable to afford a high-quality meal – defined as one with meat, fish, chicken or a vegetarian equivalent – every other day. That's over 10% of the entire population.<sup>3</sup>

The share of the household budget that people spend on food varies hugely across Europe – but the data reveals similar trends in affordability. In the poorer countries, food naturally takes a higher share of overall spending since tradable food prices are higher than incomes. In Bulgaria, for example, 37% of people's spending is on food – down from 41% in 2007. Poles, too, still spend 25% of their budgets on food on average, despite an improvement in recent years. In these countries, rising food prices are of massive significance. In Italy and the UK, the household budget data also reveals a rising food affordability gap over the past few years. But the absolute share of food in household budgets varies widely. That reflects different food traditions, the size of incomes and the relative cost of food, which is largely a result of supply chain efficiency. In Italy, almost 20% of a household's spending goes on food – making rising prices particularly painful – whereas in the UK, the share is just below 10%.



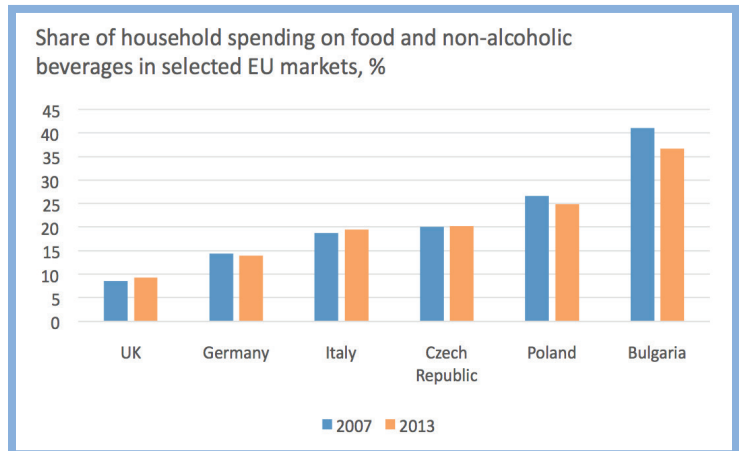
Source: Eurostat, EU-SILC database Note: inability to afford quality meals defined as % unable to afford a meal with meat, fish, chicken or a vegetarian equivalent every second day, 2013; recalculated for number of households



Source: Eurostat, EU-SILC Survey data, 2013 (except Ireland, 2012) Note: inability to afford quality meals defined as % unable to afford a meal with meat, fish, chicken or a vegetarian equivalent every second day, 2013; recalculated for number of households



The situation is worse in some of the poorer new member states. More than half of the population in Bulgaria and almost a quarter in Romania say they can't afford a decent meal every day. But the big numbers in Europe are in the places you would least imagine – over half of the households that are skimping on wholesome meals are right in the core of wealthy Europe, in Italy, Germany, the UK and France. The affordability gap has widened massively in Italy and the UK since 2007 – and it is still worsening in Spain, France and Germany. Food insecurity is now an issue for the richer countries, not just for the poorer ones.

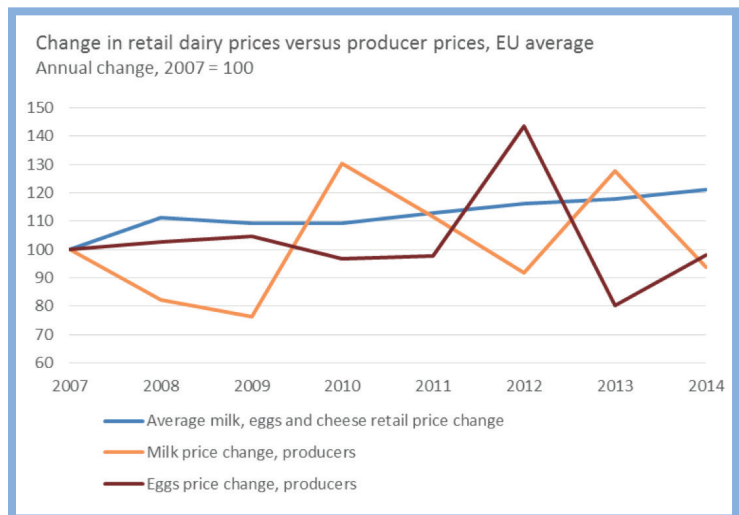


Source: Household budget surveys, national statistical offices. Notes: Germany data for 2012. Many countries only update this every five years (e.g. latest data for France, Spain and Romania are from 2011)

## A Temporary Gap?

Many of the global food commodities that shot up in price in 2008 are now falling again and most European economies have come out of recession. But, while many farm-gate prices are falling, retail prices for foods have remained high. The Chart to the right, for example, indicates that the retail price for milk, eggs and cheese has risen steadily, with prices now 21% higher than in 2007. But producer prices for milk and eggs have been extremely volatile. That leaves many European farmers struggling to stay in business when prices fall, while the constant retail price rise leaves many people in the EU struggling to afford food.

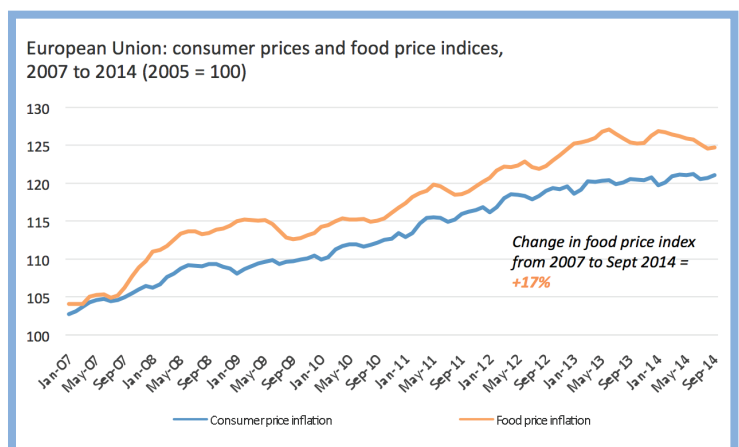
Food banks have proliferated across the continent and demand for free or heavily discounted food is still rising.<sup>4</sup> The number of people admitted to hospital with malnutrition has doubled in the UK since 2008.<sup>5</sup> The National Health Service estimates that around three million people in the UK are malnourished at any one time.<sup>6</sup>



Sources: Eurostat, DG Agri

It's becoming increasingly clear that food insecurity in Europe is not a temporary phenomenon. People get caught in a cycle of poverty when they remain jobless for more than a year or earn too little to make ends meet. Their children, too, struggle to escape from deprivation.<sup>7</sup> If food prices were to rise again as they have done over the past decade and incomes fail to keep up, many more people would enter this downward spiral. There are no simple solutions, but one thing is clear.

**We need to make sure that food remains affordable.**



Source: Eurostat





# THE EDGE

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The Faces of European  
Food Security

*Affordable food prices are  
key to fighting poverty*

# Food Poverty

One in four Europeans lives on the edge, according to the latest Eurostat data on people at risk of poverty. That number includes 83 million people living in Italy, Germany, the UK, Poland, Spain and France.<sup>8</sup> The causes of their vulnerability vary across countries. In Italy and Spain, which has the highest share of people on the edge, both unemployment and low wages are a problem. The number of “working poor” – people whose incomes are not enough to make ends meet – is Poland’s major problem, exacerbated in some countries by wage polarisation and an increase in part-time work.

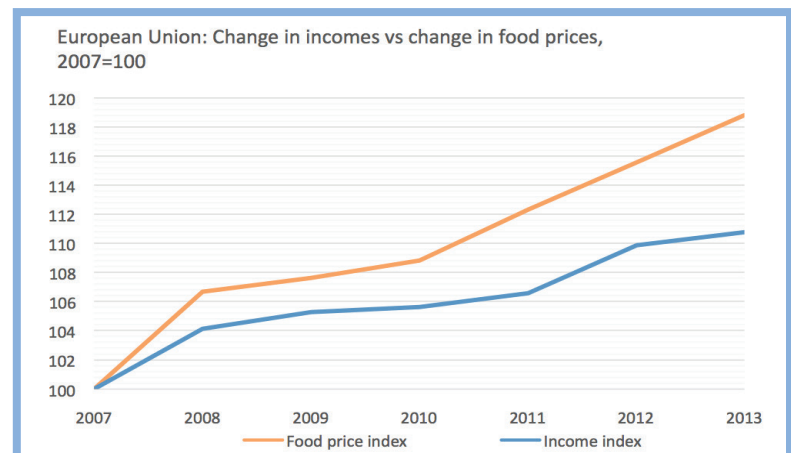
But across the board, one of the drivers of growing poverty across the EU over the past six years has been food prices. Indeed, food banks – providing free or heavily discounted food products – have proliferated across the continent and demand is still rising. In Spain, the number of people using food banks has doubled over the past four years and is now at a high of 1.5 million.<sup>9</sup> Around the same number receives food hand-outs in Germany, along with at least 1 million in France, where researchers put the number at risk of food insecurity at 6 million.<sup>10</sup> In the UK, use of food banks tripled in 2012-13.<sup>11</sup>

	EDGE	JOBLESS	WORKING POOR	FOOD AFFORD-ABILITY GAP	SURVEY: INABILITY TO AFFORD A DECENT MEAL	TREND 2007-13: FOOD AFFORD-ABILITY GAP	TREND 2007-13: INABILITY TO AFFORD A DECENT MEAL
	<i>At risk of poverty and social exclusion, 2013, %</i>	<i>Unemployment rate, 2014 latest, %</i>	<i>In work at risk of poverty, 2013, %</i>	<i>Incomes relative to food prices EU=100</i>	<i>Share of population unable to afford a quality meal, 2013, %</i>	<i>Change in income vs food prices, 2007-2013 (2007=100)</i>	<i>Change in share unable to afford a quality meal, 2007-2013 (2007 = 100)</i>
<b>Italy</b>	28	13	11	90	14	91	229
<b>Spain</b>	27	24	11	93	4	105	146
<b>Poland</b>	26	9	11	56	13	129	56
<b>UK</b>	25	6	8	122	9	81	218
<b>Germany</b>	20	5	9	116	8	94	80
<b>France</b>	18	11	8	124	7	113	119
<b>Worst</b>	<b>Bad</b>	<b>Okay</b>	<b>Best</b>				

Source: Eurostat, own calculations

## The Food Price Gap

When food prices rise sharply, as they have done over the past six years – by an average 16% across the EU – more people are pushed to make these tough decisions. With median incomes up just 10% over the same period, Europeans in general were poorer in 2013.



Source: Eurostat



# Europe On The Edge

Food poverty is already a significant issue across the EU. Another rise in food prices like we have seen over the past six years will push many people over the edge.

*If Europe is to take food security seriously, it must ensure that food remains affordable.*

Italy has the highest share of the population on the edge, driven by a multitude of factors. But food prices played a significant role. Prices are higher relative to income than in most of the EU – and they rose more than three times faster than incomes over the past six years. Surveys show more than 14% of people struggling to afford a meal, well over twice the percentage in 2007 and by far the largest share of all of the West European countries.

Spain shows a more mixed picture. It also has a high share of people on the edge, driven largely by very high unemployment. Food prices are, like in Italy, high relative to incomes. But food prices have risen less than average (and just below incomes). That improving affordability gap is reflected in surveys where – despite an increase over 2007 – just 3.5% say they struggle to afford a meal.

Poland has been one of the most economically successful of the new member states – and the only one to have turned around its agricultural sector and become a net exporter of food. That is reflected in the statistics. While food is still relatively expensive for Poles (as for all the recent joiners), incomes have risen far faster than food prices over the past six years and surveys show a massive drop in the share of people unable to eat a meal every two days. A larger share of Italians now struggle to afford meals than do Poles – indeed, in absolute terms, more French households struggle with food poverty than Polish ones.



The UK shows the opposite trend. Food prices are still relatively low for British people's incomes, but they have risen a massive 35% since 2007, four times higher than incomes. That widening of the food affordability gap – the most spectacular among the big countries – is reflected in surveys, where more than twice the percentage of Britons now saying they struggle to afford meals.

Germany's picture is slightly different reflecting the challenge of reunification and the relatively mild impact of the global crisis. In 2007, the country had a high share of people – almost 11% – saying they could not afford a decent meal every two days. That compared to just over 6% in Italy and France. Since then food prices have risen faster than incomes, but that share declined slightly – until 2013 when it ticked back up.

France has had the most benign development over the past six years, as relatively low food prices rises met growing incomes. But 18% of the population are already on the edge and, in 2013, the number of French households saying they struggle to afford a meal rose above 2 million.



## Dimension 2: Global demand for food is rising fast

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Keeping food affordable will depend to a great extent on how Europe responds to the rising global demand for food. Since the 1960s, the EU has focused more on controlling the food supply than on growing its capacity. That made sense as population growth slowed. The EU now has around 500 million people and will remain around that level, with migration making up for natural shrinkage in a few big countries like Germany and Italy.<sup>12</sup>

### The Rise of the Meat-Eaters

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But it's a different story in the emerging world. The global population is set to grow from 7 billion today to more than 9 billion by 2050, with the fastest growth taking place over the next five years.<sup>13</sup> By 2050, an extra 3 billion people in poorer countries will start earning enough to transform the way they eat and feed their families.<sup>14</sup> That process has already started and is part of the explanation for the sharp rise in food prices in 2007-08. But between now and 2020, more people will be able to choose what and how often they eat than at any other time in history. That will mean a shift from cereals to more meat, milk and eggs. The United Nations Food and Agriculture Organisation (FAO) predicts a 60% increase in demand for animal proteins by 2050<sup>15</sup> along with a similar rise in feed crops.

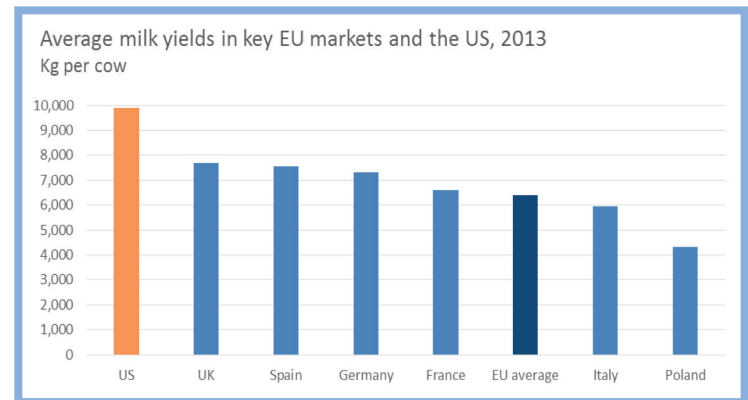




# Meeting the Opportunity

For the EU, the world's largest exporter and importer of agricultural commodities and food, growing international demand is a significant opportunity for growth. In fact, the EU was able to transform years of food trade deficits into a surplus in 2010 and overtake the US as the world's largest exporter in 2013.

But it's not all good news. Most European countries have done little to build an efficient, modern food chain over the past decades. Agricultural productivity, especially in the UK, Germany and France declined markedly against that of the US over the past 20 years.<sup>16</sup> The difference is clear in the dairy sector, where US milk yield per cow is 50% higher than the EU average. With some exceptions, like the Netherlands and Denmark, the food industry tends to be perceived as low-skilled and low-tech, despite being the EU's second most important manufacturing sector.



Sources: European Commission, DG Agriculture; USDA National Agricultural Statistical Service

# Innovation Needed

Business as usual is not an option. Even if we were able to distribute equally all the food we already produce and eliminate the 24% of food calories lost and wasted by both consumers and producers around the world,<sup>17</sup> there would still be a gap in food supply by 2050. If we are to meet global food demand and keep prices affordable in Europe, we need to produce more food. Europe cannot isolate itself from this trend – it is both a moral responsibility and a practical necessity if we are to ensure both global and national stability.

Increasing food production to the extent that is needed will require significant investments in innovation, research and development, and technology across the food chain. That is because we can't increase food supply unless we find ways to make farming and food production more environmentally sustainable. Agriculture already accounts for more than 70% of all water withdrawn from lakes, rivers and aquifers around the world and around a quarter of greenhouse gas emissions.<sup>18</sup> In Europe, farms use around 40% of land, but urbanisation and industrialisation continues to eat into land available. We cannot just add more land and more animals. We have to boost productivity and yield and do it sustainably.

*We need to produce more food with fewer inputs, but we need to make sure we do it without making food more expensive.*







# THE QUALITY

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The Faces of European  
Food Security

*Diet-related obesity and chronic  
disease is a growing problem*



# Childhood Obesity

## Consider these two facts

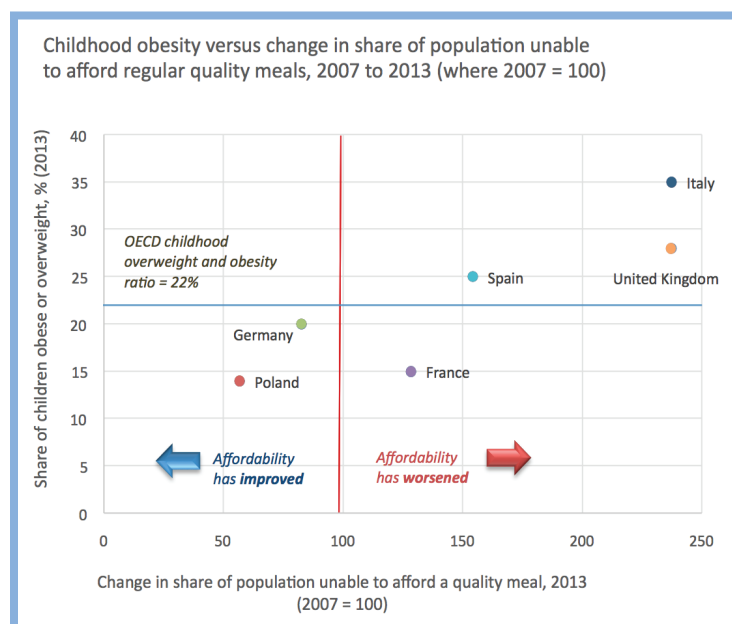
### FACT 1:

Over three and a half million Italian households said they could not afford a balanced meal every two days in 2013. That is not only the largest number in the EU, it also represents by far the biggest increase over the past six years – more than doubling from 6% of the population in 2007 to more than 14% now.

### FACT 2:

The share of Italian children who are overweight or obese is now 35%, ahead of the US and just below Greece, even though far fewer Italian adults are overweight than the European average.

Italy is the most extreme example of the links between struggling to put a meal on the table and obesity issues in children. But the correlation between growing food insecurity among families and growing weight problems in children is repeated across Europe. The chart below shows this correlation for the six largest EU countries, which together make up almost two-thirds of households struggling to afford quality meals. While there are many factors driving obesity, this pattern of growing inability to afford food and higher levels of overweight and obesity in children is very worrying.



Sources: Affordability figures are calculated from responses to Eurostat's EU-SILC survey of "inability to afford a meal with meat, chicken, fish or vegetarian equivalent every second day". The child overweight and obesity data is from the OECD's Obesity Update, June 2014, except UK figures which are from *The Lancet*, Vol. 384, August 30, 2014 (since the OECD data, based on a study by the International Association of Obesity Studies only measures children in England rather than the whole UK).

# What's the Link?

Over half of European adults are already overweight and one in five is obese. So the growth of weight problems in children points to a public health crisis that must be tackled. And, whatever the complex set of factors that are causing obesity to grow so quickly and unevenly, the core of the problem is food choices.

We need to understand why people are increasingly opting to eat high-energy but lower quality processed foods, containing lots of sugar, salt and fat, rather than eating balanced and nutritious meals.

### COST:

The price of meal ingredients has risen fast across the EU since the crisis – meat, chicken and fish, milk, eggs and cheese, as well as vegetables and fruit have all risen sharply in price. A British study showed that, despite the rise in food prices, people were actually spending less on food. They had switched to cheaper, less nutritious, calorie-dense processed food, made with large amounts of fat and sugar. The biggest decline in nutritional quality came in households with young children.<sup>19</sup>

### ACCESS:

Experts point to a link in some countries between areas of high obesity and the density of well-stocked supermarkets and farmers' markets.<sup>20</sup> In areas of cities or rural regions where incomes are lower, people often find it harder to find fresh and nutritious food and don't have transport to travel farther afield. These "food deserts" – a term coined in analysis of low-income areas in Scotland – are part of a vicious cycle of poor food access.<sup>21</sup>

### KNOWLEDGE:

Along with income, educational levels are also strongly associated with growing obesity rates.<sup>22</sup> Mixed and changing messages in the media about what kind of foods are healthy and what are not make it difficult to select the right kind of food. At the same time, many people have not learnt how to prepare ingredients and cook meals, severely limiting their choice of diet.<sup>23</sup>

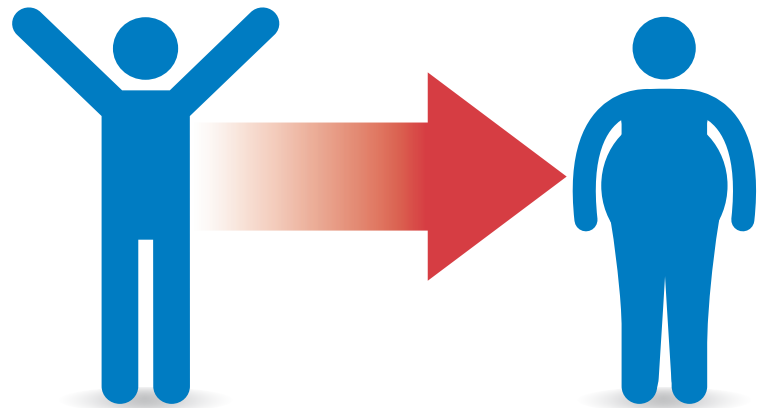
None of these factors are sufficient to explain why people are increasingly selecting less nutritious food, but taken together they point to ways we can make healthy eating easier for people.

## Dimension 3: Diet-Related Chronic Disease Is Growing Fast

There is something perverse about equating malnutrition and overweight. Indeed, until recently, the two were treated as separate phenomenon. But increasingly there is a realisation that both are central to understanding the many realities of food insecurity.<sup>24</sup> While 800 million people worldwide suffer from hunger, more than 2 billion suffer from undernourishment and “hidden hunger” – a lack of micronutrients – which can manifest themselves as obesity, according to the FAO.<sup>25</sup>

### Expanding Fast

In Europe, obesity rates have tripled since the 1980s. That has brought with it a sharp rise in chronic diseases such as diabetes, hypertension and heart disease, among others. These diet-related diseases already eat up 7% of national health budgets. Almost 3 million Europeans die each year due to diseases that are associated with being overweight and there is no improvement in sight – every third child aged 6-9 in the EU is obese or overweight, according to the World Health Organisation (WHO).<sup>26</sup>



### Is Fat a Food Security Issue?

There is a lively and inconclusive debate among experts about the exact nature of the relationship between obesity and food security.<sup>27</sup> But if we define a food-secure world as one in which food is simply a non-issue, then the necessity of seeing diet-related illness as part of the food security debate becomes clearer.

We know that our burgeoning epidemic of chronic disease is related to what we eat. In Europe, as in the US, much of the problem is linked to eating too much sugar and fat. But we also consume too much of everything apart from vegetables and fresh fruit. Our meat consumption, although falling, is currently on average 65kg per person each year – and over 90kg in some countries (double the global average). However, this is not the case everywhere, especially not among people with lower incomes, where the WHO estimates the risk of obesity to be twice as high as in wealthier groups – and the gap is growing.<sup>28</sup> Here, one of the problems is the lack of good-quality proteins. A study by the Italian Institute of Health, focusing on the dramatic rise in child obesity over the past decade, especially in the poorer south of the country, points to excessive mid-morning snacks, daily consumption of sweet fizzy

drinks and sweet breakfasts as the main problem areas.<sup>29</sup> The real nutrition challenge is to ensure people eat healthy, balanced meals, with quality proteins, vitamins and minerals.<sup>30</sup>

While the causes are complex, we know that obesity is not just an individual problem of over-eating and too little exercise – it’s a systemic problem linked at least in part to the availability and affordability of nutritious and wholesome food and to our rapidly changing dietary habits over the past few decades.<sup>31</sup>

As we in Europe are rethinking our focus on agriculture and food in response to the food affordability crisis at home and the rising demand for food globally, it makes sense to add the dimension of food quality into the food security debate.

*We need to ensure food is healthy.*

# Europe's Food Security Imperative

*We need to produce more food that is both healthy and affordable, using fewer inputs.*

## So How Do We Do It?

### Research Drive

Over the past few years, Europe has seen a number of promising new initiatives designed to accelerate this kind of innovation and collaboration. Horizon 2020, the EU's new framework research programme, has a dedicated food security, sustainable agriculture and bio-economy<sup>32</sup> pillar, with €4 billion allocated to research designed to provide a safe, healthy and affordable food supply.

Another new initiative, the European Innovation Partnership (EIP) on Agricultural Productivity and Sustainability, launched in 2013, links farmers, researchers, businesses and advisors from across member states to speed up the transfer of know-how and research on improving productivity and reducing inputs. Reflecting the enormous diversity of farm types across the EU, the EIP has groups focused on everything from fertiliser use and genetic resources to optimising organic yields, with the potential for learnings across categories.

Some member states have also introduced their own programmes. The UK Strategy for Agricultural Technology was launched in 2013, for example, with the aim of making Britain a global leader in agricultural technology, innovation and sustainability. Its first Innovation Centre focuses on bringing Big Data insights into the farming sector. The Netherlands has designated AgriFood a "top sector", creating a team to work with the government on an action plan to inject more research spending into the industry.

### The Innovation Challenge

There's a growing awareness across Europe that we can no longer take food for granted. Certainly not if we aim to feed a fast-growing global population, but also not if we want to produce more food without destroying the planet and ensure everyone is able to enjoy healthy diets. The theme of Italy's Expo Milan 2015 – Feeding the Planet, Energy for Life – suggests the direction of thinking.

This new approach to food security is still taking shape. And the process is not simple. It brings together issues – agriculture, health, poverty, the environment – that have so far had little to do with each other, and stakeholders, who have traditionally eyed each other with suspicion. Moving forward will mean identifying innovative approaches at every stage of the food chain, from seeds and farm management to recycling of waste and new retailing concepts. It will also involve a willingness to collaborate broadly and break down old certainties and barriers.

### Private R&D

In addition to public spending on R&D, the broader food industry too will need to invest more, shifting the sector from being an innovation laggard into a leading part of the emerging European bio-economy. That process may already have started. The European Commission's Industrial R&D scoreboard 2013, which benchmarks industrial R&D spending across in more than 1,500 companies in the three regions, confirms that the food sector registers poorly on research and development, compared to other sectors. But it reveals that R&D spending in the 50 European food companies covered rose 7.2% from 2010-12, compared to less than 2% growth in both the US and Japan.<sup>33</sup>



# Innovating the Food Chain

Many of these companies have joined forces with groups of scientists and agricultural experts to research ways of bringing environmental sustainability, health and affordability together (see graphic below). Some are looking for economically viable uses for waste products, creating nutritious, low-cost ingredients that also build new advanced bio-economy businesses. Others are looking for ways to use advances in genomics and robotics to leverage traditional forms of farming.

These research projects are still in early days, but they suggest that Europeans might be starting to take a more differentiated view of the role of innovation and scientific advances in the food supply. In recent years, Europe's farming and food sector has been held back by an unthinking rejection of science in the food sector, regardless of the impact. But the emerging bio-economy, in all its diversity, has innovation at its core. As our understanding of the European dimensions of food insecurity spreads, we need to challenge the negative perceptions of innovation, openly discuss the pros and cons of new approaches and build acceptance of the many different ways to ensure we can produce more food that is healthy, affordable and uses fewer inputs.

## *Innovation Across the Food Chain*

### Feed

#### *Turning agricultural waste into feed*

Noshan, a €3 million project launched in 2014, brings together research institutes, a university and a range of food sector companies from around Europe to turn agricultural waste – particularly vegetables, fruit and dairy – into low-cost animal feed. The group has categorised waste types and technologies for recycling them safely. It has also identified specific elements within waste, such as peptides and fibres that it can use for functional feed ingredients, used to boost health or prevent disease in livestock. Noshan aims to save lost calories, along with the energy and water used to grow them, while reducing the need for feed production and imports.<sup>34</sup>

### Food

#### *Making healthy food without a premium*

Chance, a research project launched in 2011 and completed in 2014, aims to change the perception that healthier food comes at a premium by using low-cost technologies to boost the nutritional value of everyday foods.<sup>36</sup> Combining researchers and food companies from around Europe, the consortium has just produced its first prototype – a pizza.

The dough, developed with companies in Hungary and Finland, uses a soybean additive to provide higher fibre and lower starch levels. The tomato sauce is made with the seeds and skins that are the by-product of tomato processing and has ten times the fibre of commercially made ketchup. The mozzarella-like cheese is based on a new microfiltration technology, patented by a Finnish company, to filter casein out of whey – it has more vitamins and is lower in fat and carbohydrates, while making use of a by-product of normal cheese-making. The cooked ham is made with less salt and added pork liver to provide vitamin A and iron.

Will 'Chance Foods' become a new "cheap and healthy" brand? Probably not, but the project has developed new technologies to re-use healthy by-products of food-processing, so reducing food waste. And it has identified the need to stop producers, consumers and retailers perceiving healthy food as more expensive than what we normally eat – and look for common interests in changing that perception.

### Farming

#### *Combining grass-grazing with automated milking*

Autograssmilk uses information technology to solve a growing problem in dairy farming. With EU milk quotas due to be removed in 2015, many European dairy farmers are looking to expand production and are increasingly turning to automated milking systems.<sup>35</sup> Around half of all new installations are automated – a higher level in Europe than elsewhere.

In general, these systems improve productivity, milk quality and animal health, while saving farmers time. But the fast take-up is having the unintended consequence of reducing grass-grazing, since cows need to be in the stall to be milked. Less pasture-feeding, in turn, reduces milk quality and cow welfare, while increasing both the environmental footprint and feeding costs.

Can grass-grazing and automatic milking be combined for an affordable price? That is what Autograssmilk is trying to work out, developing and testing a variety of cow movement systems. One device electronically identifies where grass density is highest and a gate selectively allows tagged cows into the milking areas or new paddocks. A second project is testing virtual GPS-linked fences. Aside from the technical systems it is developing, Autograssmilk has focused attention on using digitisation to solve an issue of direct relevance to farmers and food security in Europe. And it has highlighted the need to ensure that technologies which bring benefits in some areas, don't lose them in others.





# THE TRADITION

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The Faces of European  
Food Security

*The cost of cooking typical  
European national dishes has risen  
by 23% on average since 2007*

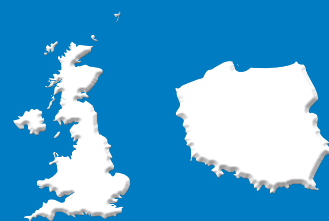


# Europe's Food Security Imperative

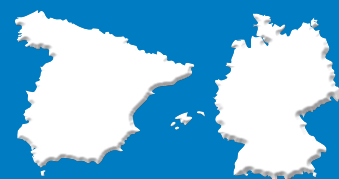
Across the EU, the cost of traditional meal ingredients has been rising faster than both incomes and other consumer goods, impacting people's ability to prepare quality, home-cooked meals. Despite lower global commodity prices for some products, such as cereals, and a sharp reduction in farm-gate prices, the average drop in retail prices over the past year has been just 0.5%.

Poland saw the biggest price rises among the big EU countries. The cost of ingredients for pierogi z miesem, flour dumplings filled with minced meat and onions, has risen over 46%, while average consumer prices rose 21%. The main culprits: eggs and beef. Egg prices rose an astounding 56% in Poland. Initially, that price rise reflected declining productivity when chicken cages were banned in the EU in 2012, but the recent sharp fall in farm-gate prices for eggs has not fed through to consumers. Beef has been rising in price globally, largely due to the high price of feed.

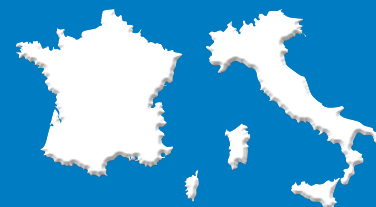
In Poland, the increase in food prices was offset by fast-rising average incomes, leaving most Poles better off. The story is very different in western Europe. In the UK, incomes rose just 9% while the traditional breakfast of bacon, eggs and sausage (accompanied by tomatoes, mushrooms and toast) now costs a family of four 31% more than in 2007. Egg prices are partly to blame in the UK too, rising 40% for consumers (but falling 13% for farmers), but the biggest price rise came from butter, up 80%. Bacon prices saved the day, rising "only" 18% - but overall, food price inflation in the UK was a staggering 35%.



In Germany, the traditional Sunday meal of roast pork and mashed potatoes now costs about 20% more than it did in 2007, with potatoes and apples showing the highest price rises. That is almost twice the overall consumer inflation rate and twice the rise in incomes. In Spain, the cost of cooking a traditional tortilla of eggs and potatoes grew 17% between 2007 and 2013. This meal is the only one to show a significant drop in price in 2014, falling by almost 5% in the past year – but this is still around 12% higher than in 2007.



In France and Italy, the price of cooking traditional meals has risen by 14% and roughly 12%, respectively, since 2007, in line with overall inflation. However, while average incomes have risen well above price rises in France, they grew by just 5% in Italy since 2007, making the tagliatelle dish around 7% less affordable than it was six years ago.



Price change comparison of traditional meals, 2007 to 2013

Country	Traditional meal	Change in traditional meal price	Food price inflation	Consumer price inflation	Income change
Poland	Pierogi z miesem	46%	27%	21%	64%
UK	British breakfast	31%	35%	21%	9%
Germany	Schweinebraten mit Kartoffelpüree	20%	17%	11%	10%
Spain	Tortilla de patatas	17%	11%	14%	16%
France	Boeuf bourguignon	14%	12%	11%	27%
Italy	Tagliatelle al ragù	12%	16%	14%	5%



## Poland



### *Pierogi z miesem*

(Flour dumplings stuffed with minced meat)

#### Shopping list:

Flour	up	44%
Eggs	up	56%
Beef	up	52%
Bread		
(for crumbs)	up	46%
Onion	up	1%
Butter	up	33%

Price in 2007: Zł 10.33

**Price in 2013:**  **Zł 15.06**

**Increase:** 46%

(Price based on four servings)

Recipe idea: [margarytka.blogspot.co.at/2011/02/pierogi-z-miesem.html](http://margarytka.blogspot.co.at/2011/02/pierogi-z-miesem.html)

Data source: Polish Central Statistical Office



## United Kingdom



### *British breakfast*

(Bacon and eggs, with sausages, mushrooms, tomatoes and toast)

#### Shopping list:

Bacon	up	18%
Eggs	up	40%
Pork sausages	up	36%
Tomatoes	up	39%
Mushrooms	up	16%
Bread	up	44%
Butter	up	80%

Price in 2007: £6.44

**Price in 2013:**  **£8.44**

**Increase:** 31%

(Price based on four servings)

Recipe idea: [www.bbc.co.uk/food/recipes/stressfreefullenglis\\_67721](http://www.bbc.co.uk/food/recipes/stressfreefullenglis_67721)

Data source: UK Office of National Statistics





## Germany:

### Schweinebraten mit Kartoffelpüree

(Roast pork with mashed potatoes)



#### Shopping list:

Pork shoulder	up	20%
Apples	up	30%
Onions	up	2%
Garlic	up	22%
Potatoes	up	27%
Butter	up	20%
Milk	up	10%

Price in 2007: €6.81

**Price in 2013:** €8.19

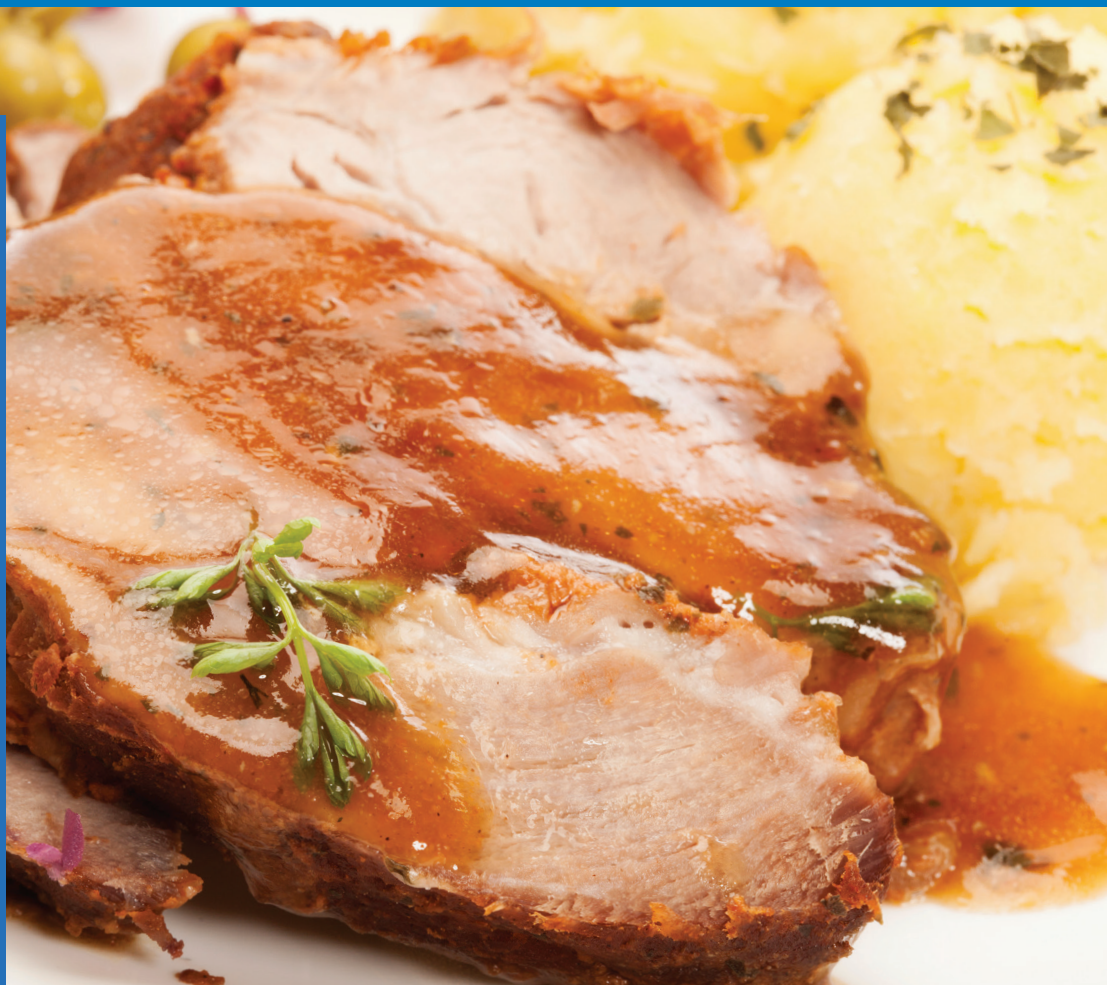
**Increase:** 20%



(Price based on four servings)

Recipe idea: [www.daskochrezept.de/rezepte/schweinebraten-nach-traditioneller-art\\_172867.html](http://www.daskochrezept.de/rezepte/schweinebraten-nach-traditioneller-art_172867.html); [www.daskochrezept.de/rezepte/kartoffelpueree\\_242857.html](http://www.daskochrezept.de/rezepte/kartoffelpueree_242857.html)

Data source: Agrarmarkt Informations-Gesellschaft mbH (AMI), DeStatis



## Spain:

### Tortilla

(Omelette with egg  
and onion)



#### Shopping list:

Eggs	up	28%
Potatoes	up	21%
Onion	up	10%
Olive oil	up	10%

Price in 2007: €3.67

**Price in 2013:** €4.30

**Increase:** 17%



(Price based on four servings)

Recipe idea: [tengolareceta.com/como-hacer-tortilla-de-patatas/1728](http://tengolareceta.com/como-hacer-tortilla-de-patatas/1728)

Data source: INE (Instituto Nacional de Estadística); Eurostat







## France

### Boeuf Bourguignon (Beef braised in red wine)



#### Shopping list:

Braising steak	up	12%
Bacon lardons	up	9%
Red wine	up	28%
Onions/shallots	up	14%
Mushrooms	up	2%
Carrots	up	19%

Price in 2007: €14.75  
**Price in 2013:**  **€16.75**  
**Increase:** **14%**

(Price based on four servings)

Recipe idea: [www.atelierdeschefs.fr/fr/recette/17741-boeuf-bourguignon-traditionnel.php](http://www.atelierdeschefs.fr/fr/recette/17741-boeuf-bourguignon-traditionnel.php)

Data source: National Institute for Statistics and Economics (INSEE)



## Italy

### Tagliatelle al ragu (Pasta with tomato and meat sauce)



#### Shopping list:

Dried tagliatelle	up	23%
Minced pork & beef	up	11%
Tomatoes	up	9%
Onion	up	11%
Carrots	up	15%
White wine	up	23%
Olive oil	up	4%
Milk	up	16%

Price in 2007: €6.40  
**Price in 2013:**  **€7.17**  
**Increase:** **12%**

(Price based on four servings)

Recipe idea: [www.leitv.it/cambio-cuoco/ricette/ragu-di-carne-alla-bolognese-la-ricetta-perfetta](http://www.leitv.it/cambio-cuoco/ricette/ragu-di-carne-alla-bolognese-la-ricetta-perfetta)

Data source: National Institute of Statistics (Istat); Eurostat



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