



**FRUIT JUICE  
MATTERS**

SHARE THE SCIENCE.  
CELEBRATE THE GOODNESS.

# Fruit Juice Matters **2017** Report



How we are **sharing  
the science and  
celebrating the  
goodness** of 100%  
fruit juice



# CONTENTS

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<b>3</b>	Introduction	<b>10</b>	Country activity	<b>17</b>	FJM partners
<b>4</b>	Science matters: working with media and health experts	Austria .....	10	<b>18</b>	What does the future hold for Fruit Juice Matters?
<b>5</b>	Case study: engaging with dietitians	Belgium .....	10	<b>19</b>	References
<b>6</b>	FJM programme activity 2016	Denmark.....	11		
<b>7</b>	Fruit and juice consumption vs European recommendations	Finland.....	11		
<b>7</b>	Hot topics in the media	France.....	12		
<b>8</b>	Fruit Juice Matters – led by science, supported by scientists	Germany.....	13		
		Italy.....	13		
		Ireland.....	14		
		Netherlands.....	14		
		Poland.....	15		
		Portugal.....	15		
		Spain .....	15		
		Sweden.....	16		
		United Kingdom..	16		

# 100% FRUIT JUICE – IT REALLY DOES MATTER FOR HEALTH



100% orange juice and other juices are a 'must-have' healthy drink on many breakfast tables. However, across Europe and beyond, some consumers are avoiding juice as it is unfairly demonised by certain influencers and media. Sugars, and the obesity epidemic, are making worldwide news and it is right that governments do their best to support healthy eating. It is clear that many people are overconsuming sugars, but cutting out juice – and all the nutrients it contains – is not the solution. 100% juice is a convenient way to enjoy a portion of fruit when many people are failing to eat enough whole fruit and vegetables for good health.

## 100% JUICE = FRUIT, JUICED

100% juice is simply fruit that is juiced. It is a natural, minimally processed product and a positive addition to daily diets:

- Its vitamins and minerals come straight from the fruit when it is squeezed.
- Most research on 100% juice demonstrates positive or neutral effects on health. There is very little evidence to the contrary.<sup>1</sup>
- Juice is nutrient rich, like the fruit it is squeezed from.<sup>2</sup> Its vitamin and mineral content is often overlooked.
- Europe's most popular juice is 100% orange juice. Just one small glass contains half an adult's daily vitamin C requirement and it is also a good source of potassium, folate and other nutrients.<sup>2</sup>
- There is a popular misconception that people are drinking too much juice. In fact, the average European drinks just 32 ml per day.<sup>3</sup>

100% fruit juice is clearly defined in European law as a natural, minimally processed product.<sup>4</sup> This means adding sugar (or removing the naturally present sugars) is forbidden by legislation. Reformulating in any way means it cannot be described as '100% juice'. Industry is also bound by strict guidance on the claims and communication we can make. On the other hand, those outside of the juice industry can communicate truth or falsehood backed by science or simply backed by personal interests. So, as an industry, our mission is to tell the truth by sharing the positive science about fruit juice.

## TRUTH: THE BASIS OF FRUIT JUICE MATTERS

In 2016 the fruit juice industry, led by AIJN (the representative association of the fruit juice industry in the EU) with CitrusBR members (Brazilian orange juice processors), Tetra Pak and individual juice companies,

agreed to fund a science-based initiative to communicate evidence on fruit juice and health (you can find more details about the partners on page 17). We chose to call our programme Fruit Juice Matters because we all believe, at a time when whole fruit and vegetable consumption is falling, that 100% fruit juice really does matter to our diets and to our health.

With Fruit Juice Matters, we want to rebalance the conversation. To do that, we are engaging with everyone who has an influential opinion about fruit juice. Not just the media, but also health care professionals – dietitians, nurses, doctors and nutrition scientists. We have worked hard to collate and analyse the existing science of 100% juice and we are collaborating with world-renowned scientists who are confident to stand up and say that, in moderation, juice is good for you.

## GETTING JUICE BACK ON THE TABLE

This report shows what we have done in 2016, our achievements and what we hope to do in 2017. If we could achieve one thing as an industry, it would be to encourage everyone to drink a small daily glass of 100% juice (even if they drink more than this now: moderation is key). But for this year we hope to achieve the first steps towards this goal: simply engaging, sharing the science, having conversations and building the evidence base with influencers, so we can get fruit juice back on the breakfast table. We are now active in 14 EU countries. Later in this report you can find more about the challenges each country faces and how Fruit Juice Matters is addressing these issues.

If you are part of the fruit juice industry, we hope you will join Fruit Juice Matters and help celebrate the goodness of 100% juice. If you are a health professional, policy maker, journalist or politician, we hope you will consider the evidence of the positive role that fruit juice can and does play in a healthy diet. For more information, visit our website [fruitjuicematters.eu](http://fruitjuicematters.eu) or get in touch.

### Jan Hermans

*AIJN Secretary General*

### Gaynor Ferrari

*Fruit Juice Matters Programme Director*

# SCIENCE MATTERS: WORKING WITH MEDIA AND HEALTH EXPERTS

Science is at the heart of everything we do. And more importantly, science is on our side. Analysis of the current available science on fruit juice by our scientific adviser, Professor Johan De Rycker, finds that the majority of published research related to 100% fruit juice suggests positive effects on health.<sup>1</sup> In fact, very few studies demonstrate otherwise.

Fruit Juice Matters (FJM) is now sharing comprehensive, high-quality scientific evidence about 100% fruit juice. This helps counter misconceptions and sensationalised or unsubstantiated negative claims in the media, and supports health professionals. Our outreach, beginning in the latter part of 2016, finds that many health experts share the confusion and misconceptions they read in the media and they welcome the opportunity to engage on 100% juice. Below is a sample of our activity this year – in numbers – with more detail on individual country pages.

PROGRAMME LIVE IN

**14**  
COUNTRIES



**14**  
FJM COUNTRY WEBSITES UP AND RUNNING



**26**  
SCIENTIFIC EVENTS, REACHING THOUSANDS OF SCIENTISTS, DIETITIANS AND NUTRITIONISTS



**4**  
ROUNDTABLE MEETINGS WITH HEALTH EXPERTS

**3**  
EU-WIDE FACT SHEETS ONLINE



**5**

WORLD-RENOUNDED EXPERTS JOIN SCIENTIFIC EXPERT PANEL (SEP)



**617**  
FJM ARTICLES PUBLISHED IN HEALTH, SCIENCE AND CONSUMER MEDIA



**11**  
PARTNER COLLABORATIONS SET UP ACROSS 14 COUNTRIES

## KEY FACTS

- ☑ No added sugar in 100% fruit juice – it's legally prohibited.<sup>4</sup>
- ☑ One small glass of 100% fruit juice contributes just 3% of the daily calories in a 2000 kcal woman's diet.<sup>5</sup>
- ☑ 100% fruit juice complements rather than replaces whole fruit intake.<sup>6</sup>
- ☑ 100% juice drinkers eat more whole fruit & vegetables.<sup>6,7</sup>



# CASE STUDY: ENGAGING WITH DIETITIANS

## INTERNATIONAL CONGRESS OF DIETITIANS, SEPTEMBER 2016, GRANADA, SPAIN

This four-yearly 'must-attend' event was an ideal setting for Fruit Juice Matters to share the science with 2,000 dietitians and nutrition scientists. AIJN's central team worked closely with the Spanish team to host a successful roundtable event and exhibition booth.

The busy FJM stand saw dietitians tasting juice, discussing portion size and misperceptions, and over 70 signing up to the symposium we hosted on juice and science. As a bonus, dietitian Tanja Callewaert, a speaker at the symposium, held a live Q&A on the stand, answering delegates' questions.

At the symposium, experts analysed the role that 100% juice plays in the diet – from the effects on typical health biomarkers, to national dietary guidelines and eating behaviours.

### Speakers:

- **Dr France Bellisle**, researcher and lecturer Université Paris 13, France
- **Dr Maria Dolores del Castillo**, member of the Spanish National Research Council and expert in food science and biotechnology
- **Tanja Callewaert**, registered dietitian and elected member of the European Specialist Dietetic Network (ESDN) for Obesity
- **Aimilia Papakonstantinou** (moderator), registered dietitian, diabetes specialist and member of EFAD

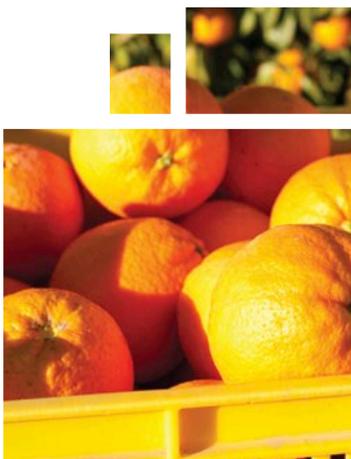
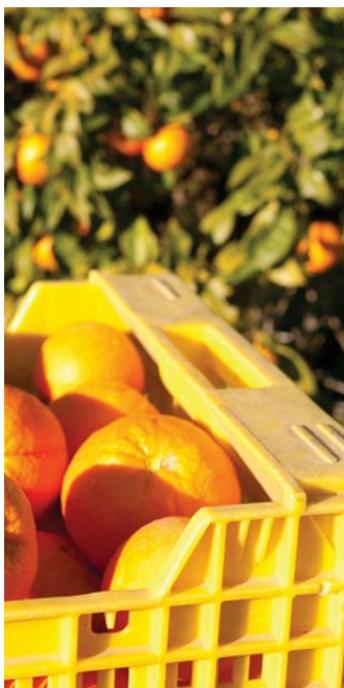
An on-stand survey garnered 73 responses, with over 100 people registering to hear more about the FJM programme. Of those surveyed, almost 50% think that the current media coverage around fruit juice is confusing and only 17% think it is accurate.

### 100% JUICE HELPS CHILDREN EAT MORE FRUIT & VEGETABLES

For good health, children (in fact everyone) should eat at least 400 g of fruit and vegetables. Only about one in every ten kids achieves this.<sup>8</sup> Cutting out juice will reduce this even further. Juice is thought to help children get used to the taste and preference for whole fruit and vegetables, helping to shape long-term food choices.<sup>9</sup>

### 100% FRUIT JUICE IS NOT DIRECTLY LINKED TO OBESITY

There is no direct link between 100% fruit juice and obesity. In fact, studies suggest that fruit juice consumers are leaner, eat more fruit and vegetables than non-consumers and are more likely to achieve the fruit and vegetable consumption guidelines of many European countries.<sup>7</sup> The average European drinks just 32 ml of 100% juice a day.<sup>3</sup> That's around 15 calories. On a population level is this likely to cause or even contribute to obesity?





## FJM PROGRAMME ACTIVITY 2016

### JUNE 2016

#### Five

world-renowned scientists join FJM Scientific Expert Panel

### JULY 2016

#### All 14 countries

ready to begin FJM activity

### AUGUST 2016

#### Website

fruitjuicematters.eu goes live

### SEPTEMBER 2016

FJM attends

#### International Congress of Dietitians

in Granada, Spain

### OCTOBER 2016

#### Poland

Cooperation with Polish Society of Dietetics and exhibition

#### UK

Launch of three fact sheets (Oh Sugar!, Pulp Facts or Pulp Fiction, Juice Glorious Juice)

#### Denmark

Juice engagement at media house with 100% juice fact sheet

#### France

French team engage at Taste Week with healthy lessons in schools on the ideal breakfast

#### Netherlands

Consumer research finds that half of the orange juice drinkers think 100% orange juice contains added sugar

#### First Scientific Expert Panel

roundtable meeting at AIJN Juice Summit

### NOVEMBER 2016

#### Belgium

FJM stand at - Food Congress: 1,000 dietitians visited for fact sheets and info; of the 420 dietitians surveyed, most said they recommend 100% fruit juice in specific diets such as sports nutrition, vegetarian and for people with malnutrition

#### Austria

Direct mailing with a mini perception questionnaire on fruit juice, targeting scientific and political stakeholders

#### Italy

Symposium at SINU national congress introduces FJM to scientific and nutrition community

#### Sweden

'Juice boost' blogger event at a Stockholm gym with workout, health breakfast and expert talks from Elisabet Rytter and Anna Ottosson

#### Ireland

Influential expert panel gets the conversation moving

#### Portugal

One-to-one meetings with HCPs, industry and political stakeholders to introduce FJM programme

### DECEMBER 2016

#### Finland

Event for retailers and the juice industry to mobilise interest

#### Spain

Health care providers and policy makers' breakfast meeting led by Dr Jesus Roman, President of the Spanish Society of Dietetics and Food Science

#### Germany

Scientific webinar saw nutrition scientist Dr Claudia Laupert-Deick explain the nutritional profile of 100% orange juice to nutritionists

FJM issues **first central press release** on the science supporting juice

# FRUIT AND JUICE CONSUMPTION VS EUROPEAN RECOMMENDATIONS

## HOW CAN WE BRIDGE THE GAP?

August 2016 saw FJM commission a review of Food-Based Dietary Guidelines (FBDGs). It looks at what each of 19 European countries recommend for fruit and vegetable consumption and assesses this against actual consumption of whole fruit and vegetables – and of 100% juice. The extensive report asks if there is a logical explanation why FBDGs are so different between countries.

It's probably the first study of its kind to bring clarity to the variety and complexity of national guidelines; it offers useful insight into how fruit juice is framed in national dietary schemes and it highlights that most Europeans are not meeting FBDGs on fruit and vegetable consumption.

Key findings include that national guidelines **differ significantly** from country to country and, in terms of juice, a small glass of **100% fruit juice can increase compliance of FBDGs** substantially when added to current whole fruit and vegetable intakes.

All existing European guidelines recognise the importance of eating fruits and vegetables, but interpretations vary on the definition of

fruit and vegetables. For example, Norway includes potatoes in the fruit and vegetable group, Belgium separates fruit from vegetables, France gives a preference to fresh over frozen fruit etc. Some guidelines recommend consuming citrus juices for specific reasons, such as iron absorption or to improve nutrient intake among older people. In 2016 the Netherlands unfortunately shifted fruit juice from good to bad in its 'Wheel of Five' recommendations. Most other countries recognise a small glass of juice of varying sizes as a portion of fruit. Depending on the country, FBDGs state that between 80 g and 300 g of fruit juice is equivalent to a piece of fruit.

The paper presents a critical view of today's consumption and varied recommendations for fruit, fruit juice and vegetables in Europe. It helps answer the question about whether available consumption data warrants the guidelines they are supposedly based on. The final report is due for publication around June 2017.

*Source: Comparing fruit and vegetable consumption and recommendations in food-based dietary guidelines across Europe. Callewaert T., De Kraker S., Horemans S., De Rycker J. 8 August 2016 (publication due).*

## HOT TOPICS IN THE MEDIA: THREE ANGLES DRIVING THE FRUIT JUICE NARRATIVE

### NUTRIENT VALUE & SUGARS PROFILE

The topic of nutritional value and sugars content in juice is particularly tricky. There is a lot of confusion among the general public and health professionals, resulting from unclear nutritional advice from policy organisations. Often people can't differentiate between sugars (fructose, glucose, sucrose) and categories of sugars (added, free, natural), so one of FJM's key objectives is to educate HCPs, the general public and the media.

100% fruit juice is nutrient rich and contains only the sugars found naturally in fruit.<sup>4</sup> We don't compare it to other products, instead we focus on sharing scientific information specific to juice: it legally can't contain added sugar, the sugars come direct from the whole fruit, and moderation is key.<sup>4</sup>

### HEALTH & OBESITY

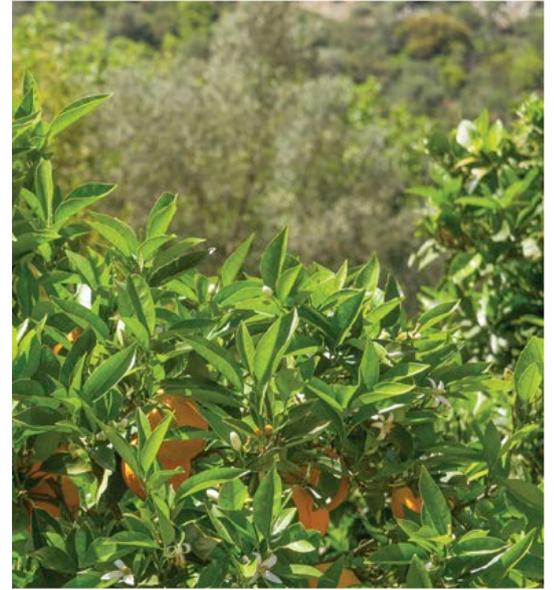
The debate around obesity and links to fruit juice stems from the idea that people are drinking too much juice, ergo the level of natural sugars contributes to weight gain. This isn't the case. In fact, the average European only drinks 32 ml of juice per day and since fruit juices are around 10% sugars, this accounts for only a small proportion of daily sugars intake.<sup>2,3</sup>

The media, HCPs and the general public may not have the full spectrum of science available. So for FJM media activity, we emphasise how important moderation is in the diet and share independent science relating to juice. Research shows that fruit juice drinkers eat more fruit and vegetables than non-drinkers, a glass of juice is approximately 3% of a daily calorie intake and, with its high nutrient content, fruit juice is more than just 'empty calories'.<sup>5,7</sup>

### DENTAL HYGIENE

Fruit juice is frequently associated with tooth decay, but science suggests that drinking juice is compatible with dental hygiene. Studies show that there is no difference between the effects of whole fruit and fruit juice on teeth, and there are simple ways to include juice in the diet without impacting teeth – such as drinking juice at meal times or using a straw.<sup>9</sup>

There is a dedicated section about this on the FJM website with practical advice, and several countries are developing content with local dentistry associations to share with media.



# FRUIT JUICE MATTERS

## LED BY SCIENCE, SUPPORTED BY SCIENTISTS

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**“THERE IS NO EVIDENCE THAT DRINKING FRUIT JUICE INCREASES THE RISK OF DIABETES AND OBESITY. IN FACT THERE IS NO EVIDENCE THAT FRUIT JUICE HAS ANY NEGATIVE EFFECT ON HEALTH.”**

**Professor Rui Hai Liu**

*University of Cornell*

*Chair of the FJM Scientific Expert Panel*



The Fruit Juice Matters programme is built on science. In 2016, five internationally renowned scientists agreed to join an FJM scientific expert panel (SEP). The panel supports science-based communication, interprets existing science and identifies gaps in current knowledge about juice and health. The SEP members are leaders in their fields. Our SEP members are:

- **Professor Rui Hai Liu** (chair), University of Cornell (food science, cancer & nutrition, whole food approach)
- **Professor France Bellisle**, Université Paris 13 (behavioural science, nutrition and epidemiology)
- **Professor John Sievenpiper**, University of Toronto (endocrinology, diabetes, fructose hypothesis)
- **Professor David Benton**, University of Swansea (food psychology & diet)
- **Professor Reinhold Carle**, University of Hohenheim (food science & biotechnology)

The FJM science adviser is Professor Johan De Rycker. He works with the SEP on science matters and provides expert advice to partner countries and the central team. Professor De Rycker is a biochemist specialising in science communication.



## SCIENCE ACTIVITIES IN 2016

The SEP began in June 2016 with its first panel meeting at the Juice Summit 2016 in Antwerp, Belgium. The SEP gave evidence on key scientific questions around juice to an audience of 500 juice industry professionals. Key topics were:

- The nutrient contribution: juice and whole fruit vs supplements
- Glycaemic index and glycaemic load
- Fruit juice in a healthy diet
- Fruit juice: health benefits (and problems)
- Liquid calories, satiety and energy intake

The SEP concludes that, as few people meet dietary guidelines for fruit and vegetable consumption, 100% juice in moderation is a beneficial addition to the diet. Evidence shows that it is certainly not harmful and SEP members stated:

- "Fruit Juice is a pleasurable source of many important nutrients and hydration."
- "Phytochemicals in fruits/fruit juices act synergistically and additively to provide potential health benefits: whole foods (and juices) are healthier than dietary supplements."
- "Consumers of 100% fruit juice tend to be leaner and healthier than non-consumers."
- "Intake of 100% fruit juice correlates with whole fruit/vegetable and milk intake: a 'marker' of a healthy diet."

The SEP's conclusions form the basis of our science communication to influencers, including dietitians, public health experts and other health professionals. SEP members support FJM by speaking at international conferences on issues linked to the juice industry or health and science professionals. These include presentations in Russia, Spain, Poland, Italy and Denmark.

"As Brazil is the biggest orange producer and exporter of orange juice in the world, CitrusBR members are concerned about the decrease in consumption over the past few years and feel it's important to work with our clients and partners in Europe on this issue. Our members – Cutrale, Citrusuco and Louis Dreyfus – started discussing the FJM programme in 2014. Except for the contributions received from packaging companies, CitrusBR contributes half of the funds, the other half coming from the European bottling companies.

"Although FJM took some time to build, what we have achieved to date is impressive. It's not easy to manage a programme involving so many countries and stakeholders. It's also interesting to see that, while people in companies have their full-time jobs, they find the time to dedicate efforts to the programme – which shows that everyone sees value in it.

"Since the beginning we were aware that balancing the conversation would not happen in one year. This is why the initial agreement was signed for three years, and we would like to keep working on FJM after that. Of course, our final goal is to have more people drinking orange juice in moderation and make them aware of its benefits and of the myths surrounding it."

**Larissa Popp**

*International Relations Director at CitrusBR*

## 100% FRUIT JUICE DRINKERS EAT MORE WHOLE FRUIT

The evidence does not show that drinking juice makes people eat less whole fruit. On the contrary, 100% fruit juice drinkers eat more whole fruit and vegetables, and are more likely to achieve the fruit and vegetable recommendations (dietary guidelines) set by many European countries.<sup>7</sup>

# COUNTRY ACTIVITY

## FRUIT JUICE MATTERS

### ACROSS EUROPE

*AIJN, the European Fruit Juice Association, coordinates the Fruit Juice Matters programme and oversees communication and engagement in 14 European countries. At country level, national fruit juice associations manage the FJM programme for their local market. During the first part of 2016, AIJN helped each country to select agencies specialising in communication and engagement with health professionals and consumers. Together we are positively engaging with dietitians, doctors, scientists and policy makers across Europe on 100% fruit juice. Country activities began in mid-2016. A summary of each country's activity follows on pages 10-16.*

## Austria

Fruit juice remains part of Austrian dietary guidelines, but its position is now clearly 'less visible'. In July 2016 the Government published a new nutritional pyramid where fruit juice is no longer explicitly mentioned as a source of fruit. The Austrian Fruit Juice Matters programme began activity soon after, but found communications hampered by legal rulings on nutritional claims. They found that their small community of nutritionists and dietitians is often negative about fruit juice particularly due to its 10% sugars. Juice is however a 'side issue' compared to dietitians' greater concern of low fruit and vegetable

consumption. The Austrian team has worked hard to engage with this group, explaining how juice can support increased consumption, and believes health professionals' perceptions about 100% juice are already improving.

In the later part of 2016 Austria ran a range of media activities, including five advertorials in mainstream and specialist nutrition media, and a press release on research about the impact of fruit juice on well-being. In total, with these five advertorials and the first press release, Fruit Juice Matters reached over 3.5 million people in Austria. Approximately 10,000 of these are health professionals such as nutritionists and dietitians.

## Belgium

As in every country, the sugar issue is top-of-mind. It's welcome news that the 2018 national dietary guidelines probably won't remove fruit juice from the fruit and vegetable category.

A survey of 1,000 dietitians shows that myths are rife. Dietetic students say they are taught a one-dimensional perspective on juice that distils it down to sugar content alone, ignoring juice's nutrients and its proven role in supporting a balanced diet. The Belgian team notes a slight shift to more neutral

views, following engagement with stakeholders using scientific evidence. This level of engagement requires significant resources. But this is an effective strategy for a small country and is starting to show results.

In addition to the survey, the Belgian team's activities included attendance at the national Food Congress (a dietitian-only annual event) and sharing fact sheets.

In 2017 Belgium is focusing on health professionals rather than consumer activity and plans to develop education to improve dietetic students' training about 100% fruit juice.

# Denmark

The Danish Food Ministry has strict interpretations of EU regulations and is not planning to relax their position. The Danish FJM team has to be very careful when talking about any of juice's well-documented health benefits.

The Danish Expert Advisory Panel is an important source of insights and scientific support. In 2016, myths abound, with Danish dietitians and consumers believing 100% fruit juice contains added sugar and juice from concentrate is artificial. There is also confusion between juice, nectars and smoothies (as there is across Europe) and this contributes to the sugar perception.

The Danish team has mobilised engagement to breaking down myths. This includes one-to-one dialogue with 45 health experts and some media activity. In October, for example, the team organised a media house orange juice sampling and science event for journalists. After face-to-face dialogue, one expert said she changed her stance and gave a positive quote in a media article. This is an indication that we are changing perceptions among individuals in Denmark, but it's too early to speak about the whole population.

In 2017 Denmark will take nearly all consumer-directed activity out of its plans and focus on health professionals. This is also a direct result of the strict legal directions in this market.

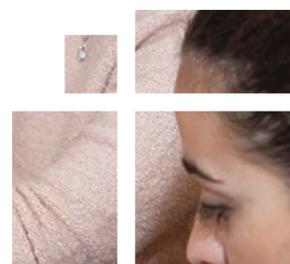
# Finland

The Finnish national association says there is a major need for FJM as, once again, consumers and health professionals are unaware of the benefits of fruit juice and lack balanced information. It takes a long time to change entrenched views. Health professionals need reminding that a small glass of juice a day is permitted in the nation's nutritional guidelines.

Finland was one of the final countries to get its FJM team in place, in late August

2016. A key task is to ensure that central information resources have the right tone of voice for Finland's strict legal restrictions.

Finland's initial priority was to ensure that the juice industry and retailers were on board and supportive of FJM. This was done in a launch event. A nutrition expert has now signed on as FJM spokesperson and engages peer-to-peer with other experts. She also helps the team prepare newsletters, press kits and web copy for the 2017 launch.



“One of the main issues the fruit juice industry faces today is that we haven't protected ourselves enough. We've allowed people to create myths about fruit juice. FJM counters this and other industries, with similar programmes, are already seeing a positive impact. Fruit juice is the most convenient way to address key consumer needs. Our responsibility is to ensure that consumers and other important stakeholders understand this.”

**José Marti**  
Senior Vice-President Marketing, R&D,  
Eckes-Granini Group  
Chair, FJM Marketing Steering Committee



# France

Faced with the sugar debate and growing trend for 'home-made' foods, consumers remain positive about 100% juice. Most see commercial fruit juice as pleasurable and convenient – an easy way to achieve 'five a day'. But there is a disconnect between media sentiment and public perceptions. A three-month media review revealed an overall critical tone on juice, including false assumptions about the nutrients in commercial fruit juice compared to home-made juice.

France focused on balancing negative opinion with scientific fact, using press releases, media one-to-one interactions and events, and created an expert panel to shape the local programme. Drinking a glass of orange juice, particularly at breakfast, is part of l'Hexagone's regime – a fact celebrated during September's National

Taste Week, when FJM's activity reached a massive 21 million people.

While media is negative on fruit juice, most health experts are neutral on the topic, with a smaller number remaining critical due to sugars. The team's presence at national scientific congresses reaches larger numbers and supplements than one-on-one interactions. For example, the Journée Francophone de Nutrition saw 200 health professionals taking fact sheets from the FJM booth.

Unijus estimates that, in 2016, 50% of media coverage and opinion is negative, 30% neutral and 20% positive. By 2019 France hopes to reduce negative coverage to 15% and drive 60% positive coverage through intensified work with the media and health professionals.



"Fruit juice complements rather than replaces whole fruit and vegetable intake. In fact, there is evidence that 100% fruit juice drinkers actually consume more whole fruit and vegetables than non-drinkers. Fruit juice does not prevent children from accepting whole fruit and vegetables, but rather seems to help them become more familiar with the taste of fruits."

**Professor France Bellisle,**  
*Université Paris 13*  
*Member of the FJM Scientific Expert Panel*



"In France, there is an ongoing national discussion to revise the dietary guidelines, including fruits and vegetables. In 2016 a first report from our scientific national authority concludes that fruit juices should be classified under the category of sugary drinks. We are now in discussion with policy makers and stakeholders to share our position in favour of maintaining fruit juices in the fruit category as well as their place in the 'five-a-day' recommendations.

"In France, Unijus has been communicating with health professionals about the benefits of juice for

some time. The FJM programme gives us the means to communicate these messages more broadly and we have done this through events, media activities, targeted information resources and engagement opportunities. With its European dimension, FJM allows exchanges between countries, increasing the sharing of experiences, ideas and knowledge. FJM is a remarkable programme, ambitious and with energy and truth at its centre."

**Anne-Sophie Royant,**  
*National Secretary, Unijus, France*



# Germany

Most German nutrition experts, health officials and consumers express neutral or positive attitudes to fruit juice – it's part of the 'five-a-day' recommendations. But among consumers there is growing confusion about fruit juice and a need for information on nutrients, health, CSR, sustainability and production.

The FJM initiative in Germany focuses on 100% orange juice only and has two key thrusts:

1. An on-going scan of scientific literature to gather and communicate new evidence
2. Face-to-face engagement with nutritionists and health-oriented consumers

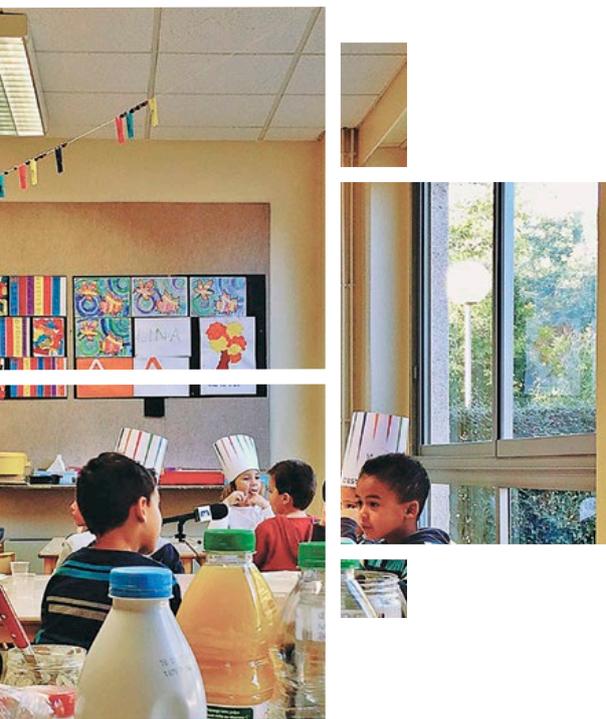
Outreach activities began in September, communicating a scientific study on orange juice from Sao Paulo University. Various health trade and lifestyle titles ran the story. FJM

activity featured in 60 German publications throughout 2016. Other activities included attendance at two key health congresses, discussions with over 120 health care professionals and a well-received webinar on orange juice and health by nutrition expert Dr Claudia Laupert-Deick.

## Knowledge is key

A German survey in 2016 found, worryingly, that a knowledge vacuum exists about orange juice among nutrition experts. Some 45% of them are unaware that orange juice has no added sugar. During engagement it was also found that health care professionals are more interested in hearing about new scientific research rather than established facts.

These survey insights, and the knowledge gained in 2016, are informing 2017 activities. The German team, led by the German national juice association VdF, knows that, despite a great start, after less than a year, it's too early to expect a serious shift in attitudes.



“Our research shows that provitamin A is more easily resorbed from orange juice than from fresh oranges. Provitamin A is converted by our body to vitamin A, helping to maintain the immune system and our visual functions. The better resorption from juice is, in part, due to the mild heat treatment during pasteurisation.”

### Prof. Reinhold Carle

*Institute of Food Science & Biotechnology  
University of Hohenheim, Stuttgart*



## FACT: 100% FRUIT JUICE HAS NO ADDED SUGARS

Contrary to general misconceptions, there are NEVER any added sugars in 100% fruit juice. In fact, adding sugars is prohibited by European law, whether the juice comes from concentrate or not.<sup>4</sup>

# Italy

In Italy, there is institutional debate about a sugar tax and more stringent labelling requirements on country of origin. In addition, while fruit juice is seen as healthy, there is a perception that Italian juice drinkers use it to replace whole fruit (the evidence doesn't support this: we know that juice drinkers eat more whole fruit). There were 97 articles in 2016 falsely linking juice drinking to obesity. Among health professionals paediatricians are particularly critical.

The programme has led to more balanced information being circulated: from the first outreach activity – a newsletter with *Nutrizione33* – to reaching 87,000 experts through the EDRA newsletter. A cornerstone activity is the partnership with Italy's key nutrition organisation (SINU), which has developed a detailed dossier of scientific evidence that was presented at its Congress to 300 nutritionists. The Italian team will further strengthen scientific partnerships and build on their work with SINU in 2017.

# Ireland

FJM was launched in 2016 against a backdrop of emerging policies around healthy eating. In September the Government launched 'A Healthy Weight for Ireland – Obesity Policy and Action Plan 2016-2025', followed by a public consultation for the proposed Sugar-Sweetened Drinks' tax (the tax does not include fruit juice). The revised food pyramid, launched in December, recommends five to seven portions of fruit and vegetables every day. Fruit juice is considered one of these portions and a picture of juice is included in the pyramid.

Successful 2016 activities for Ireland include an expert roundtable in Dublin, with dietitians, a dentist and a general practitioner, and political outreach to several key decision makers. Irish dentists have a strong negative opinion of juice, which is a significant barrier to behaviour change. Nutritionists and dietitians often acknowledge the benefits of juice but say these are not fully understood in Irish society. There are mixed reactions from media with most negative articles focusing on sugar. While sentiment wavered during 2016, positive sentiment reached a high of 42% and negative sentiment reached a high of 44% according to monthly measurement data.

“Most people in Europe do not eat the recommended amounts of fruit and vegetables, so a daily glass of 100% fruit juice could be a sensible addition to whole fruit consumption. Although eating whole fruits and vegetables is always the first option, cutting out juice entirely could result in even fewer people meeting the fruit and vegetable recommendations. So it's not always a case of 'either or' – drinking 100% fruit juice and eating whole fruit go hand in hand.”

**Tanja Callewaert**  
Registered dietitian



# Netherlands

The position towards 100% juice is quite critical among many health officials and experts in the Netherlands. The Dutch dietary guidelines for 'five a day' changed in 2015 – no longer recommending fruit juice as a portion of fruit. While many experts support this position, others support juice in small portions.

Juice in the media is often linked to diabetes and obesity, and the removal from guidelines caused an extreme portrayal of 100% juice in the Dutch media. A survey of health professionals reveals that many of them see merits in 100% fruit juice, particularly at breakfast, and want further discussion about sensible consumption, asking the industry to focus on portion size. FJM is seen as a sensible and sympathetic attempt at achieving balance in this debate.

Consumer misperceptions include:

- ✗ There are additives in packaged juice.
- ✗ There is more sugar in packaged juice than in home-squeezed juice.
- ✓ Consumers and even some experts don't know that the '100% juice' label on packaging legally means nothing else is added.

The Netherlands team believes that to change opinions requires commitment from across the industry, not just FJM partners, on portion size and sensible consumption, and a continuous dialogue and science information on fruit juice's attributes.

# Poland

A small glass (200 ml) counts as one portion of fruit. Many health professionals support this but not all dietitians do, saying that home-squeezed juice is better than packaged juice. Since the start of FJM, over half (54%) of negative consumer articles in Poland focused on sugar. Myths include the belief that 100% juice contains added ingredients – such as colouring, preservatives or artificial flavours – or that packaged juices have fewer vitamins.

In August FJM met with important groups such as the Polish Society of Dietetics and Warsaw University of Life Sciences. This was followed up with the circulation of publications, leaflets and targeted outreach activities at six major health and nutrition sector events, reaching a total of 2,000 health professionals. Three expert lectures engaged expert peers with subjects such as the evidence-based impact of juice's nutrients on health, obesity and childhood nutrition. Follow-up successes include published abstracts in scientific journals and conference proceedings.

Partnerships with key institutions include the co-development of educational resources. Poland's active press office delivered six press releases over six months, including five facts on vitamin C and how Poland can put the theory of healthy living into practice. These helped balance reporting of juice in the consumer media and online. Altogether 287 pieces of FJM coverage reached over 921,000 people, including 11 pieces in the specialist health and science press.

In 2017 Poland is building on its success by developing educational resources and partnerships and will strengthen media and face-to-face outreach.

“Many of our activities directly focus on health and nutrition professionals, which results in increased interest and knowledge of juices within this group. In 2016 we presented orange juice and its characteristics to almost 1,300 stakeholders in Poland!”

**Barbara Groele**  
*Secretary General, KUPS Poland*



# Spain

A recurring theme in all countries is just how little people really know about juice. In Spain, while government health organisations are aware and generally supportive of juice, health professionals and media appear confused. Most health professionals say they don't know the difference between the types of packaged juices or that 100% fruit juice never contains added sugars. So a focus on more education is needed, while scientists interviewed just want to see more new research.

In 2016 the Spanish team reached over 1,000 health professionals and had 11 meetings with health professional associations. They also worked with the central team on ICD 2016 (see page 5) and held a breakfast seminar for health professionals and policy officials.

# Portugal

Portugal's early focus was on a proposed 'sugar tax', which, when elaborated, did not include 100% juice. A review of some 175 articles on sugar tax reveals some positive news, as the tax led to some differentiation in the media. Articles mainly refer to fruit juice as healthier and separate from sugar-added beverages.

Other Portuguese activities focused sharply on face-to-face dialogue with the country's 20 most important food, nutrition and health stakeholders, to learn their views, present the programme and identify opportunities to work together. This successful strategy confirms that stakeholders recognise the value of honest and evidence-based information for health professionals and consumers. The simple act of explaining in meetings that juice has no added sugar saw a softening of expert views – it was perceived as healthier straight away.

In Portugal many people don't know the difference between 100% juice and nectars or sugar-added drinks, while packaged juice is seen as industrial or less healthy. To combat this perception, Portugal began producing a short video for 2017 that shows how orange juice is naturally made – from harvest in the groves to packaging.

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"The majority of consumers across Europe are not getting enough fruit and vegetables, so the work of the FJM programme is more important than ever. The work of the SEP will be a big step forward in helping stakeholders and consumers understand more about the good stuff in juice."

**Douglas Lamont**  
CEO, *innocent drinks*

”

## PACKAGED JUICE = SQUEEZED FRUIT = HEALTHY JUICE

Fruits are squeezed soon after harvest to make fruit juice – keeping more of the fruits' natural nutrients. Minimal processing follows including pasteurisation. While some nutrients are marginally reduced in commercial fruit juice compared to whole fruit, other nutrients become more bioavailable (accessible to our bodies).<sup>10</sup> Packaging also helps preserve the nutrients, protecting fruit juice from the effects of temperature, air and light, and helping maintain its natural goodness.<sup>11,12</sup>

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"There have been concerns that fruit juice releases high levels of glucose into the blood. In fact, when compared to many foods, the levels are low. There is no cause for concern."

**Professor David Benton**  
University of Swansea  
Member of the FJM Scientific Expert Panel

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## Sweden

2015 saw Sweden's National Food Agency (NFA) remove juice from fruit and vegetable recommendations, acknowledging it as a source of nutrients but advising whole fruit instead. Almost every month Swedish experts make this 'either or' comparison against 100% juice. This claim is just as common as the issue of sugar. Only 16% of Swedes know that juice does not have added sugar, according to the NFA's survey.

A Swedish review found a shift in recent years about who people listen to for health advice. Bloggers are now very influential, although many don't have formal

health or science education. The 'Juiceboost' blogger event at a gym in Stockholm combined fun and science with a workout, a health lecture and an orange and vegetable juice mixing session. The event's theme was 'juice as a recovery aid' – both vitamin C and potassium in orange juice support recovery. Positive postings in blogs and other social media demonstrate the impact of this initiative.

Face-to-face meetings are proving an effective strategy to build trust. Dietitians say they helped change their views. Dietitians endorse the need for more balanced, scientifically accurate information to more widely change the conversation on juice.

## United Kingdom

FJM launched in March, reporting to 400 nutritionists that official data shows that 91% of children are not eating their 'five a day' and that compliance can be increased by 42% by drinking 100% juice. Follow-up with health and mainstream media led to 151 pieces of broadcast coverage alone and a combined reach of some 43 million people.

This activity was run against a backdrop of government health initiatives around childhood obesity, soft drinks and sugar tax and news coverage ranging from fair to inaccurate. Despite the Scientific Advisory Committee on Nutrition finding no evidence that fruit juice consumption is a driver of obesity, its Carbohydrates and Health report says the UK should reduce sugar consumption and adopt

the term 'free sugars' (rather than added sugars), and, confusingly, this should include sugars naturally present in fruit juice.

National media are taking notice of FJM and addressing misleading statements when challenged. During 2016, print media sentiment (330 articles) scored 64% positive, 21% negative and 15% neutral.

Face-to-face meetings with health influencers are bearing fruit. For example, two attendees at an expert roundtable have since tweeted against news articles that were negative about fruit juice. Dietitians want more consumer information on the nutrient density of juice and more explanation on how fruit and vegetable consumption is enhanced, not replaced, by fruit juice. Professionals also support keeping juice in the 'fruit and vegetables' food group as opposed to other drinks affected by the Soft Drinks Levy (sugar tax).

# FJM Partners

Late in 2015, 30 organisations in the juice industry signed an agreement to co-fund the Fruit Juice Matters programme. Since then, others have joined and will continue to do so. FJM is funded by the three biggest Brazilian exporters of orange juice and European juice companies with valued contributions from juice's packaging partners. To all funders we give our grateful thanks.

## BRAZILIAN CITRUS JUICE PRODUCERS

- Citrosuco
- Cutrale
- Louis Dreyfus Company

## EUROPEAN JUICE COMPANIES

- Agrozumos
- AMC Group
- Antarctic
- Conserve Italia
- Doehler
- Eckes-Granini Group
- FrieslandCampina
- Haus Rabenhorst
- HERO Benelux
- Innocent
- Juver
- La Doria
- LSDH
- Maspex

- Niederrhein-Gold
- Parmalat
- PepsiCo
- Pfanner
- Princes
- Rauch
- Refresco Gerber
- Riha Wesergold
- Rynkeby
- Spitz
- Stute
- Sumol+Compal SA
- The Coca-Cola Company
- Valensina
- Wild
- Zipperle

## PACKAGING INDUSTRY

- Elopak
- SIG Combibloc
- Tetra Pak

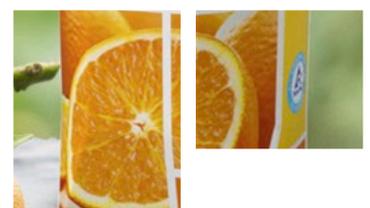
## TETRA PAK: A FOUNDING PARTNER IN FRUIT JUICE MATTERS

"Tetra Pak has been part of FJM from the start because we want to help reinforce the role – and convenience – of 100% fruit juices in a balanced, every-day diet. In our busy lives packaged juices are an incredibly nutritious, safe and easy way to increase daily fruit intake alongside whole fruit, at home or on the go. For example, aseptic cartons keep juice safe for months until opening, without the need for refrigeration, and preserve the fruit's natural colour, taste and nutritional value. Through the packaging and processing solutions, as well as the industry expertise we offer our customers, we support them in meeting consumer demands for healthy and convenient products.

"Tetra Pak brings this wealth of expertise into shaping the foundations of the FJM programme. We also support FJM at both European and country level and, through our in-house experts, across the value chain to maximise the programme's impact. We are very proud to be part of FJM as a founding partner and we think it's a fantastic opportunity to work with our customers and partners and bring together the best of our knowledge and resources in securing our future success."

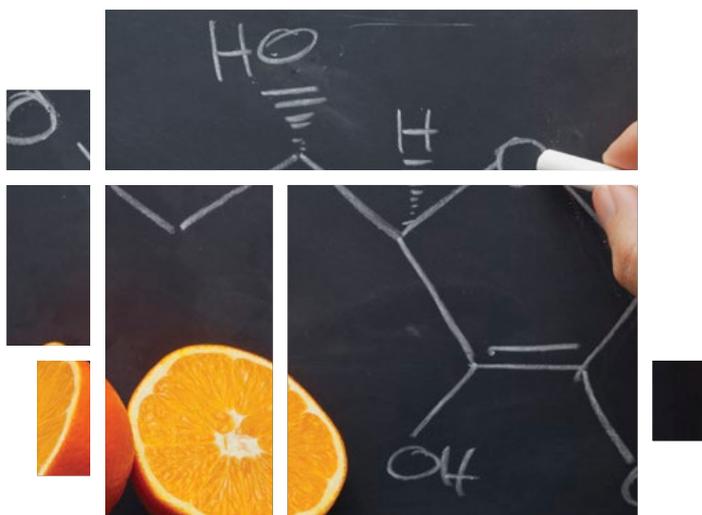
**Cristina Dumitru**

*Marketing Communications Leader for Europe & Central Asia, Tetra Pak*



# WHAT DOES THE FUTURE HOLD FOR FRUIT JUICE MATTERS?

2016 was the first year of our programme, involving a big effort for organisation and planning. In 2017 we will focus on creating scientific resources, growing the scientific evidence base and continuing engagement with health professionals, policy makers, the media and consumers.



## 2017: WHAT ABOUT THE SCIENCE?

For 2017, the SEP is now looking beyond its recent activities of reporting and summarising existing science, to begin a programme of original science and research on fruit juice. There is a clear need for research that demonstrates the effect of juice on health outcomes in people and populations, rather than, say, looking at individual nutrients such as sugars or vitamin C. For example: what long-term effects does 100% juice have on health? We hope to begin mining existing internationally recognised large-scale data sets to look for evidence around 100% juice on patient-relevant outcomes (e.g. risk of stroke, hypertension and other cardiovascular diseases). We also want to understand how early-life diets affect dietary choices among adults – asking the essential question: do children who drink 100% juice have healthier diets as adults?

In 2017 we will also explore other scientific questions in detail to identify and address evidence gaps for Fruit Juice Matters. We will also be working to encourage more industry partners to join FJM and participate in increasing the scientific knowledge base on juice and health.

### RESEARCH AND JUICE AND HEALTH OUTCOMES ARE NEEDED

“The reductionist model, where we distil down food to its individual nutrients and claim them to cause either ‘all benefit or all harm’ simply doesn’t work, and public health policy makers are starting to recognise that. This is a paradigm shift toward recommendations based on food and dietary patterns and away from single ingredients. It leaves us with a need for new research on juice: less about the juice’s individual nutrients and more about demonstrating the effects of juice on health outcomes in real people and populations.”

### GUILTY BY ASSOCIATION

“Juice is seen negatively in the media because it’s ‘guilty by association’ – it contains sugars, ergo it must be all bad. We need to break this false conclusion. Looking at the trial data, there is no evidence for this and no evidence that juice should be placed alongside sugar-sweetened drinks. Juice is a complex, nutrient-rich matrix.”

**Professor John Sievenpiper**

*Associate Professor, Nutritional Sciences  
University of Toronto*



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Fruit Juice Matters is coordinated by AIJN with over 30 funding partners from the juice and packaging industry. If you would like to join Fruit Juice Matters, please contact AIJN or the national fruit juice association in your country.

If you would like more information about Fruit Juice Matters, please visit our central website: [www.fruitjuicematters.eu](http://www.fruitjuicematters.eu)

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