

# The PlantLIBRA Plant Food Supplement Consumer Survey

## 2011-2012



*The first  
European survey of  
Plant Food Supplement  
users*

 PlantLIBRA  
EC project number 245199



## Key findings

- This survey has been conducted in 2359 plant food supplements (PFS) consumers, males and females, aged 18-59 and 60+ years and has evaluated a total of 1288 reported PFS from over 400 manufacturers.
- A total of 491 different botanical ingredients have been identified in the consumed PFS.
- In all countries, most consumers take 1 product. Finland is the country that has more consumers of more than 1 product.
- More than half of all the products reported contain 1 botanical only.
- Multi-botanical products are more popular in Finland (with 38.2% of products).
- The most common dose forms were capsules and pills/tablets/lozenges.
- Overall, the most consumed botanicals (as ingredients of PFS) are ginkgo (*Ginkgo biloba*), aloe (*Aloe vera*), artichoke (*Cynara scolymus*), ginseng (*Panax ginseng*) and valerian (*Valeriana officinalis*), all reported, as the most consumed, in at least two countries. The most commonly used botanicals differ across countries.
- Only 3.7% of the interviewed PFS consumers reported having experienced any adverse effect.
- The most popular place of purchase-in all countries except for Romania- is the health/herbal shop followed by the pharmacy.
- The most reported source of recommendation by PFS users -in all countries except for Italy- is the "word of mouth" (friend/relative).
- In 4 out of 6 countries most consumers take these products "periodically".
- The United Kingdom and Finland are the countries with more "all-year-round" PFS users.
- At least 50% of PFS users report that the product "always" helps them.

## Achievements and conclusions

- The PlantLIBRA Consumer Survey is the first to report on the usage of botanicals by PFS consumers in six European countries.
- The survey highlights how complex it is to measure the intake of such products, particularly at European level.
- This survey provides us with a much clearer understanding of consumer behavior, we now know more about the products consumers are taking and how they are taking them.
- Having consumption data for these products will help assess the risks and benefits of PFS and their botanical ingredients, which in turn will facilitate the decision-making by regulators and the industry.
- Our work can be used by other groups who want to contribute to the pool of knowledge in this field".
- Further information is needed. Future national dietary surveys within Europe should collect data on the intake of botanicals in order to facilitate the assessment of the risks and benefits associated with these products.



## WHAT IS THE PlantLIBRA PLANT FOOD SUPPLEMENT CONSUMER SURVEY?

Conducted by six partners of the EU Project PlantLIBRA ([www.plantlibra.eu](http://www.plantlibra.eu)) in their respective six different countries, the PlantLIBRA Plant Food Supplements (PFS) Consumer Survey has collected data on usage from PFS consumers in six European countries. These data were collected through personal interviews during the 15 months from May 2011 to August 2012. Survey results have provided data to evaluate:

- the products consumed and their botanical ingredients
- the usage patterns of PFS products
- the socio-demographic profile of PFS users

These results will contribute to achieving the objectives of the PlantLIBRA Project on risk-benefit and safety assessment of PFS and inform the future regulation of the sector by the European Commission.

## WHAT ARE PLANT FOOD SUPPLEMENTS (PFS)?

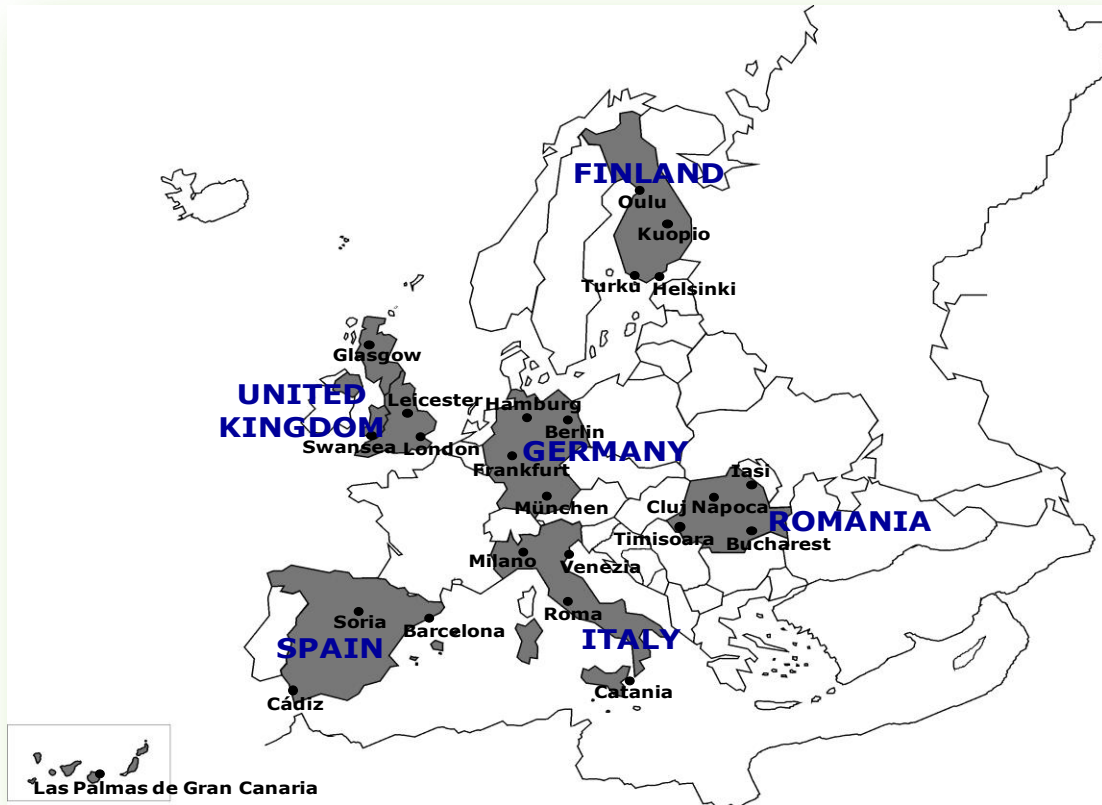
PFS are defined as "foodstuffs the purpose of which is to supplement the normal diet and which are concentrated sources of botanical preparations that have nutritional or physiological effect, alone or in combination with vitamins, minerals and other substances which are not plant-based. PFS are marketed in dose form, such as capsules, pastilles, tablets, pills and other similar forms, sachets of powder, ampoules of liquids, drop dispensing bottles, and other similar forms of liquids and powders designed to be taken in measured small unit quantities".

## WHO WAS ELIGIBLE TO PARTICIPATE IN THE SURVEY? DEFINITION OF THE PFS CONSUMER

Eligible participants were individuals aged between 18-59 years or 60+, who in the preceding 12 months had been regular PFS consumers and who met strict selection criteria for usage of PFS.

## SURVEY SAMPLE PROFILE AND SIZE

The PlantLIBRA PFS Consumer Survey was conducted in 24 cities in six European countries, namely Finland, Germany, Italy, Romania, Spain and the United Kingdom, with an approximate sample size of 400 adult and elderly consumers per country (approximately 2400 in total).



**Countries and cities participating in the PlantLIBRA Consumer Survey**

## SURVEY CONTENT

A 5-minute questionnaire was used initially to identify consumers of PFS in the previous 12 months. Those considered “eligible consumers” who were also willing to participate completed a 30-minute questionnaire during an interview about their PFS usage. This questionnaire consisted of 58 questions, 20 of which asked about aspects of PFS usage, and 38 asked about socio-demographic, health and lifestyle aspects.



# The PlantLIBRA PFS Consumer Survey

## Key finding 1

This survey has been conducted in 2359 PFS consumers, males and females aged 18-59 and 60+ years. Across all countries, more than half of the participants (57.5%) were employed. The majority of participating consumers were educated to medium level

### Socio-demographic characteristics of the consumer sample, overall and by country.

| Consumer characteristics         |                           | All countries | Finland | Germany | Italy | Romania | Spain | United Kingdom |
|----------------------------------|---------------------------|---------------|---------|---------|-------|---------|-------|----------------|
|                                  |                           | %             | %       | %       | %     | %       | %     | %              |
| <b>Gender</b>                    | Male                      | 48.4          | 48.1    | 49.5    | 49.5  | 49.8    | 43.3  | 50.3           |
|                                  | Female                    | 51.6          | 51.9    | 50.5    | 50.5  | 50.3    | 56.7  | 49.7           |
| <b>Age</b>                       | 18-29 years               | 17.7          | 15.7    | 19.4    | 22.2  | 30.5    | 9.5   | 9.0            |
|                                  | 30-39 years               | 18.9          | 16.2    | 14.3    | 23.3  | 16.3    | 25.1  | 18.2           |
|                                  | 40-49 years               | 19.5          | 16.0    | 20.6    | 16.7  | 11.5    | 21.9  | 30.8           |
|                                  | 50-59 years               | 18.7          | 26.2    | 20.1    | 13.0  | 16.8    | 18.9  | 16.8           |
|                                  | ≥ 60 years                | 25.2          | 25.9    | 25.6    | 24.9  | 25.0    | 24.6  | 25.3           |
| <b>Education</b>                 | Low                       | 10.6          | 11.7    | 0.8     | 19.1  | 8.8     | 22.9  | -              |
|                                  | Medium                    | 65.7          | 59.1    | 82.7    | 58.7  | 47.5    | 63.7  | 82.9           |
|                                  | High                      | 23.8          | 29.2    | 16.6    | 22.2  | 43.8    | 13.4  | 17.1           |
| <b>Current employment status</b> | Employed                  | 57.5          | 50.9    | 60.3    | 58.5  | 62.3    | 60.7  | 52.4           |
|                                  | Other groups <sup>a</sup> | 42.5          | 49.1    | 39.7    | 41.5  | 37.8    | 39.3  | 47.6           |

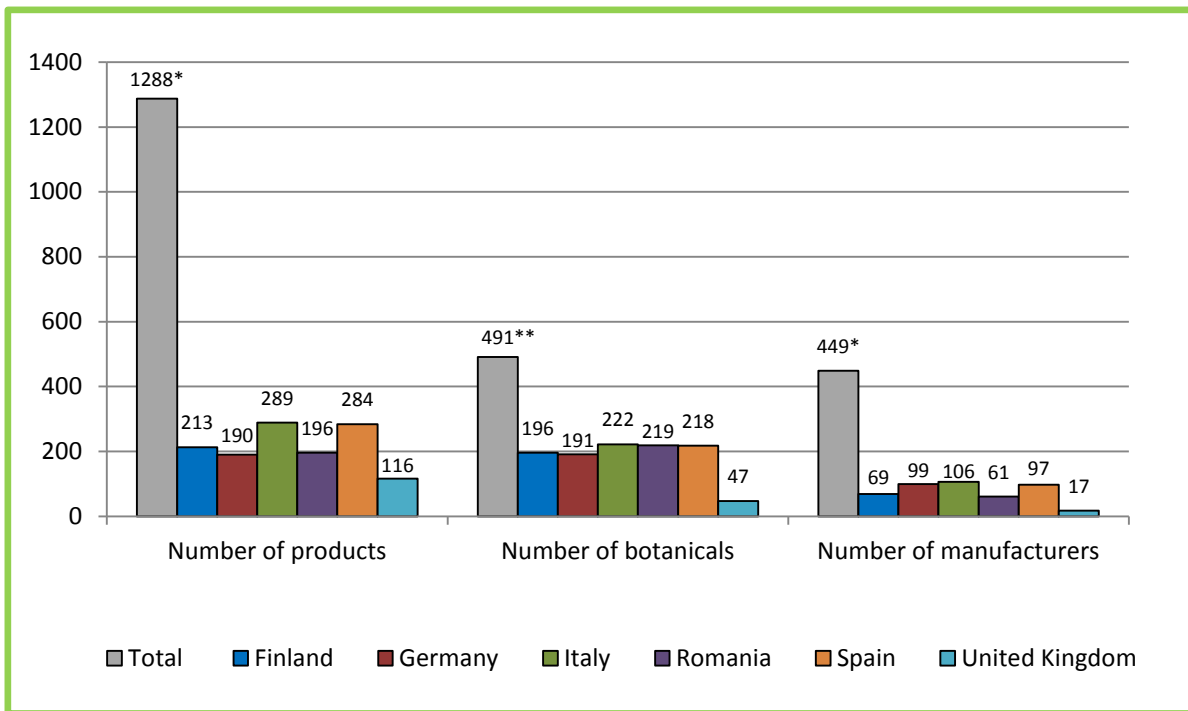
<sup>a</sup>. Other groups: Unemployed; Housework; Student; Retired; Disabled; and Other.



## Key finding 2

A total of 1288 reported PFS from over 400 manufacturers have been evaluated, containing a total of 491 different reported botanicals

Reported characteristics of consumed PFS, by country



\*Products and manufacturers have not been compared between countries due to language differences, so their totals refers to the sum of products or manufacturers from the six countries, prior to comparison and therefore elimination of the duplicates that may exist.

\*\*The total number of botanicals is indeed the final figure, as botanical scientific names were used (in Latin) and duplicates were eliminated.

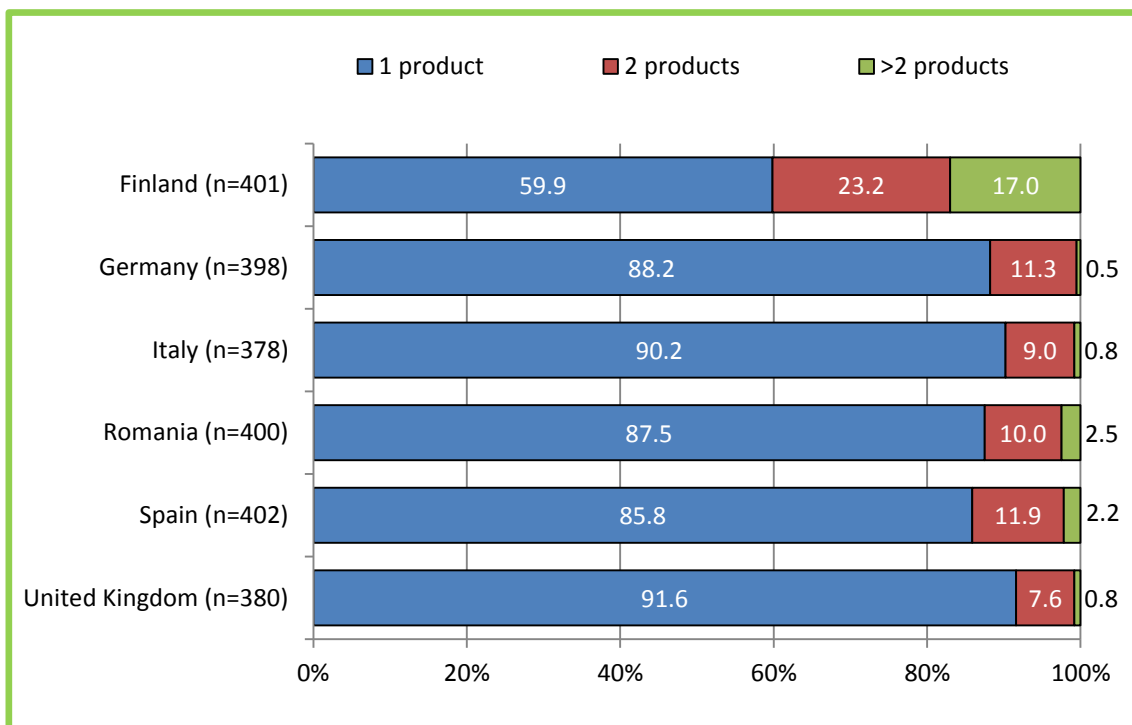


# The PlantLIBRA PFS Consumer Survey

## Key finding 3

In all countries, most consumers take one product. Finland has more consumers reporting more than one product as compared to the other countries

Distributions of the consumers (%) according to the number of products they consume, per country



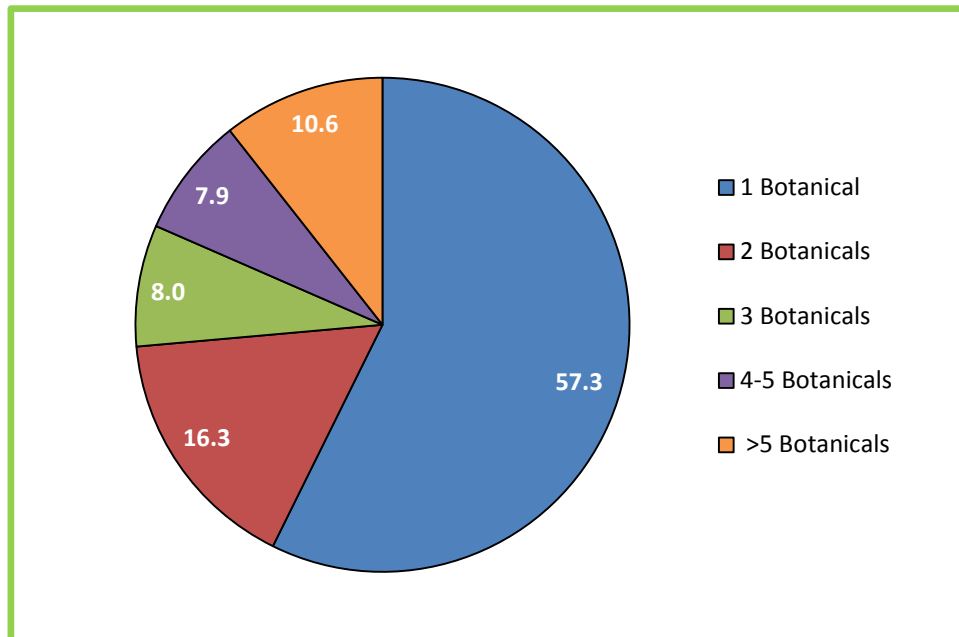




## Key finding 4

More than half of all the products reported contain 1 botanical only

Characteristics of consumed products (%) according to the number of botanicals they contain



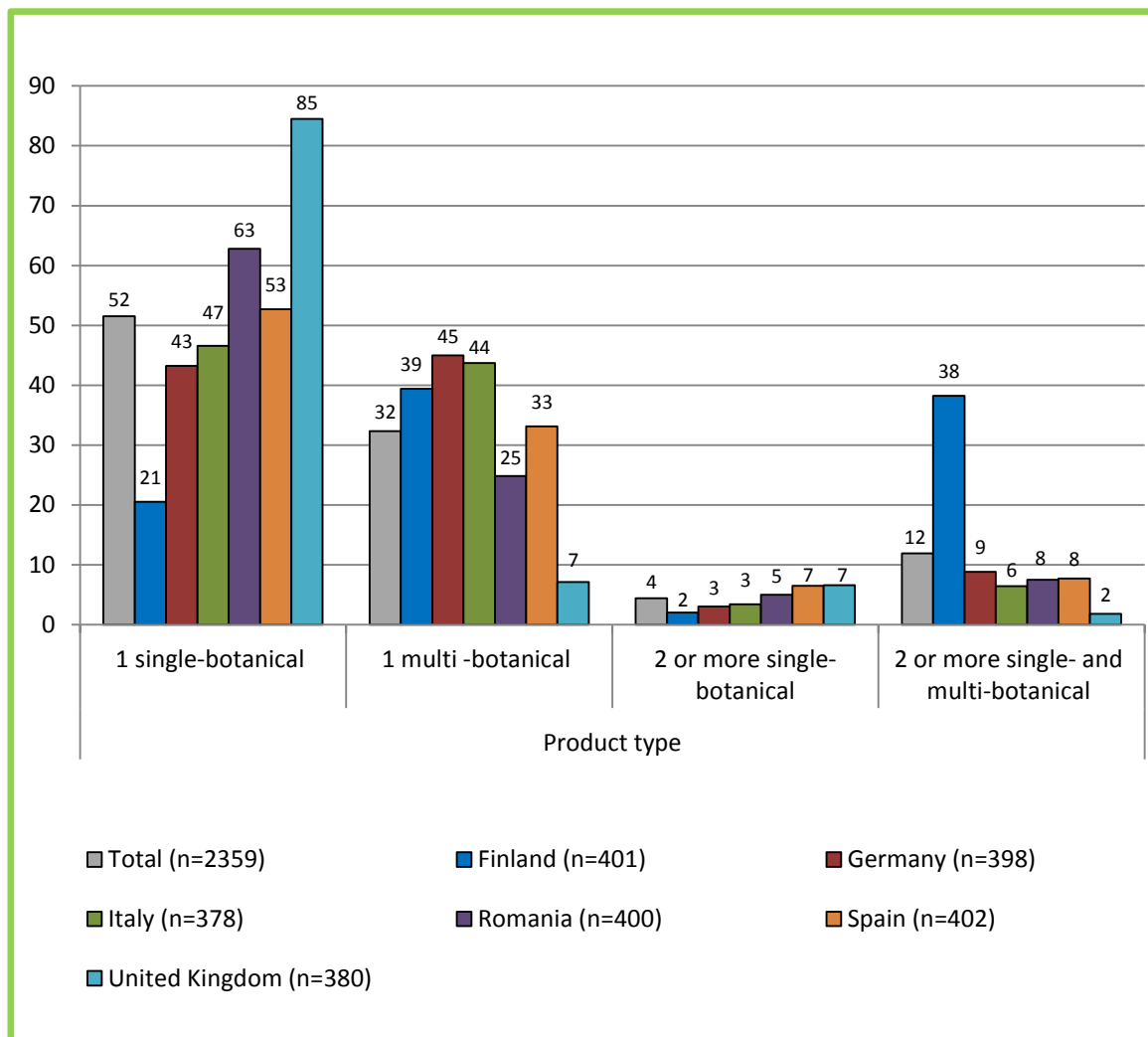


# The PlantLIBRA PFS Consumer Survey

## Key finding 5

Multi-botanical products are popular in Finland (with 38.2% of products)

Type of products taken (%), by country

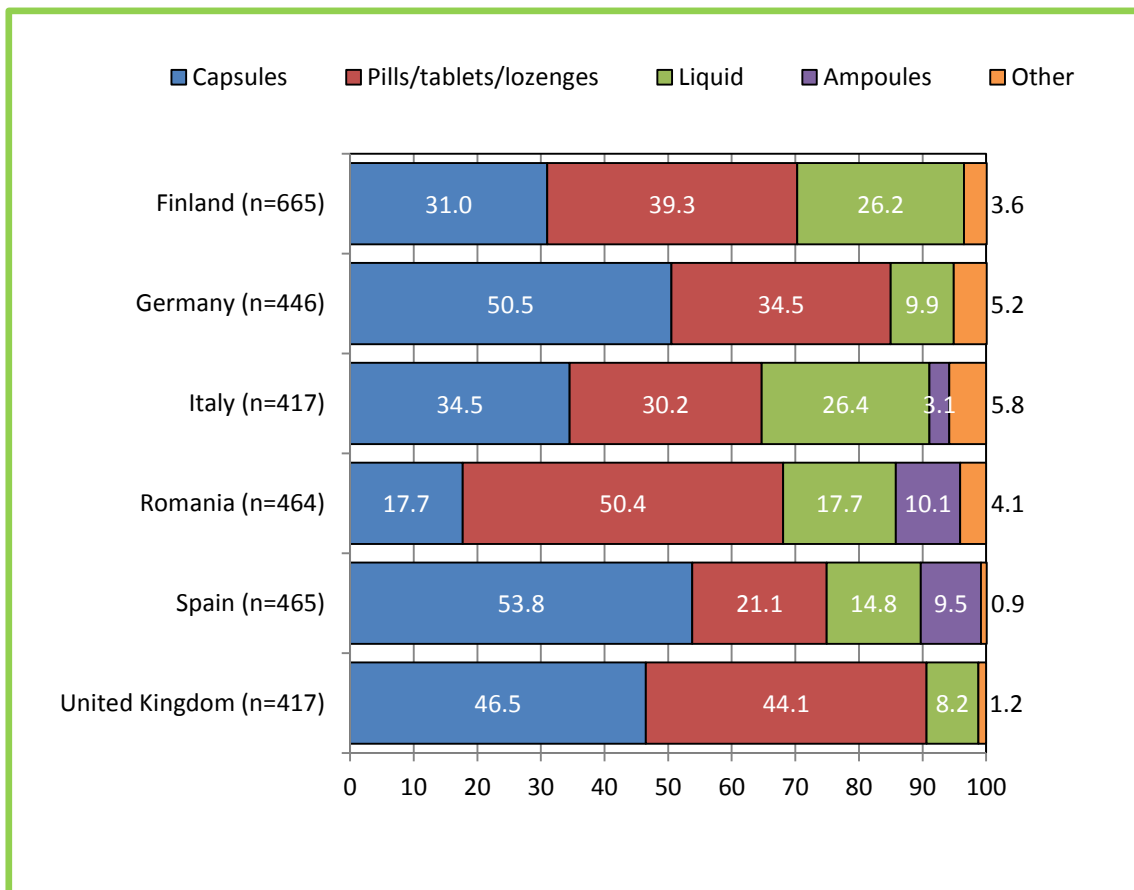




## Key finding 6

The most consumed dose forms are "capsules" and "pills/tablets/lozenges"

**PFS dose forms (%), per product used by a respondent, by country**



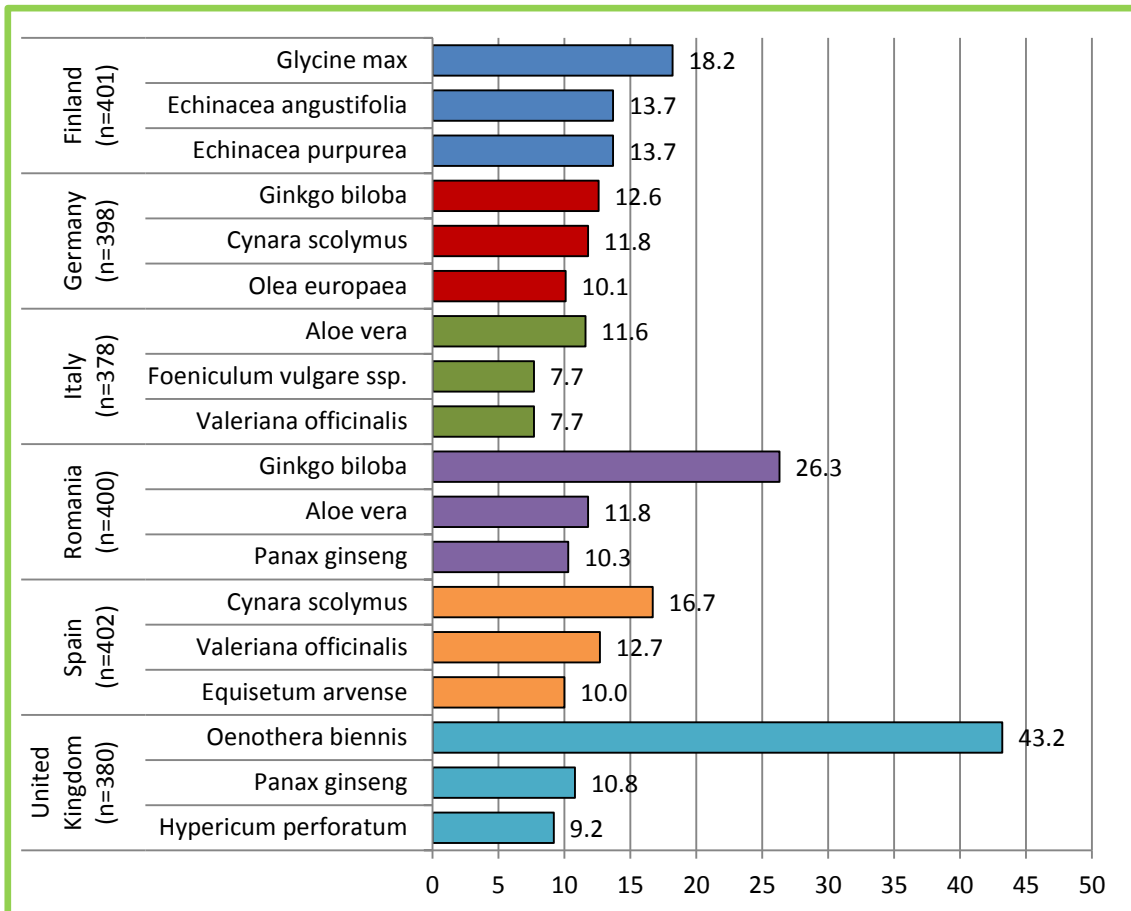


# The PlantLIBRA PFS Consumer Survey

## Key finding 7

Overall, the most consumed botanicals (as ingredients of PFS) are ginkgo (*Ginkgo biloba*), aloe (*Aloe vera*), artichoke (*Cynara scolymus*), ginseng (*Panax ginseng*) and valerian (*Valeriana officinalis*), all reported in at least two countries. The most commonly used botanicals differ across countries

Consumer distribution of the three most used PFS-contained botanicals (%), per country

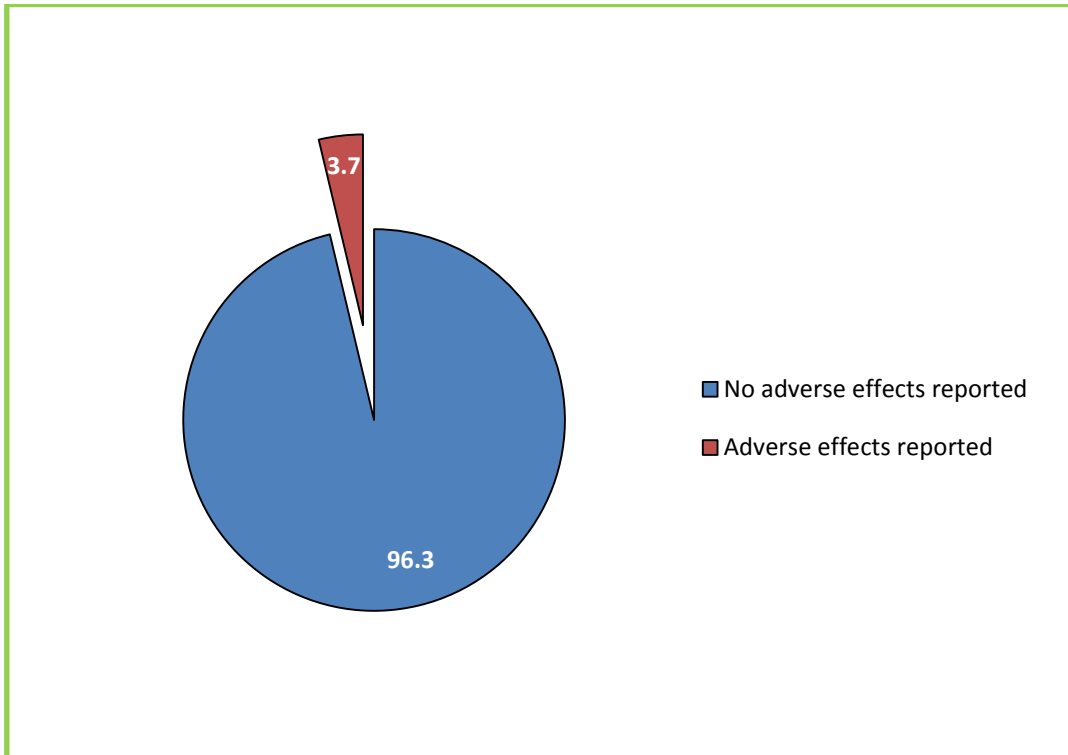




## Key finding 8

Only 3.7% of the interviewed PFS consumers reported having experienced any adverse effect

Reported adverse effects (% of the total)





# The PlantLIBRA PFS Consumer Survey

## Key finding 9

The most popular place of purchase -in all countries except for Romania- is the health/herbal shop, followed by the pharmacy

### Places of purchase, by country

|                                       | Total % | Finland % | Germany % | Italy % | Romania % | Spain % | United Kingdom % |
|---------------------------------------|---------|-----------|-----------|---------|-----------|---------|------------------|
| Health/herbal shop                    | 54.8    | 54.8      | 50.4      | 64.4    | 43.1      | 70.9    | 44.3             |
| Pharmacy                              | 27.9    | 15.4      | 31.2      | 23.3    | 49.8      | 16.2    | 38.1             |
| Supermarket/grocery store             | 14.0    | 24.5      | 6.2       | 8.3     | 1.3       | 21.5    | 17.3             |
| Internet                              | 7.1     | 6.6       | 25.0      | 3.1     | 1.5       | 4.0     | 1.9              |
| Not sure                              | 7.0     | 0.8       | 13.5      | 1.2     | 18.8      | 4.6     | 5.3              |
| Network marketing                     | 5.6     | 9.7       | 3.3       | 2.4     | 7.1       | 1.9     | 7.5              |
| Gym                                   | 1.3     | 0.8       | 0.2       | 1.2     | 0.0       | 0.4     | 6.0              |
| Mail order (manufacturer/distributor) | 1.1     | 4.7       | 0.0       | 0.0     | 0.0       | 0.0     | 0.0              |
| Friends/relatives                     | 1.0     | 2.1       | 1.1       | 1.4     | 0.0       | 0.8     | 0.2              |
| Telemarketing                         | 0.2     | 0.9       | 0.0       | 0.0     | 0.0       | 0.0     | 0.0              |





## Key finding 10

The most reported source of recommendation by PFS users -in all countries except Italy- is the "word of mouth" (friend/relative)

### Ten most reported sources of recommendation of PFS consumption, by country

|                          | Total % | Finland % | Germany % | Italy % | Romania % | Spain % | United Kingdom % |
|--------------------------|---------|-----------|-----------|---------|-----------|---------|------------------|
| Friend/relative          | 38.2    | 41.1      | 44.9      | 30.7    | 39.7      | 33.1    | 38.1             |
| Nobody/myself            | 23.2    | 42.7      | 22.3      | 15.6    | 16.4      | 14.3    | 18.3             |
| Herbal shop assistant    | 15.6    | 17.2      | 6.2       | 34.2    | 10.3      | 15.2    | 10.4             |
| Doctor/General Physician | 10.7    | 4.7       | 12.2      | 12.3    | 22.6      | 9.7     | 4.6              |
| Pharmacist               | 10.0    | 2.9       | 20.1      | 12.7    | 18.5      | 6.9     | 1.4              |
| Nutritionist/dietitian   | 8.2     | 2.7       | 2.0       | 1.4     | 4.1       | 20.4    | 21.0             |
| Magazine/newspaper       | 8.1     | 18.0      | 10.4      | 1.7     | 6.0       | 0.4     | 7.5              |
| Internet/social group    | 6.5     | 7.9       | 12.2      | 3.1     | 6.5       | 4.0     | 4.8              |
| Homeopath                | 5.1     | 2.3       | 10.2      | 3.3     | 2.6       | 9.3     | 4.1              |
| TV/radio                 | 2.2     | 3.8       | 3.1       | 0.9     | 3.0       | 1.1     | 0.2              |



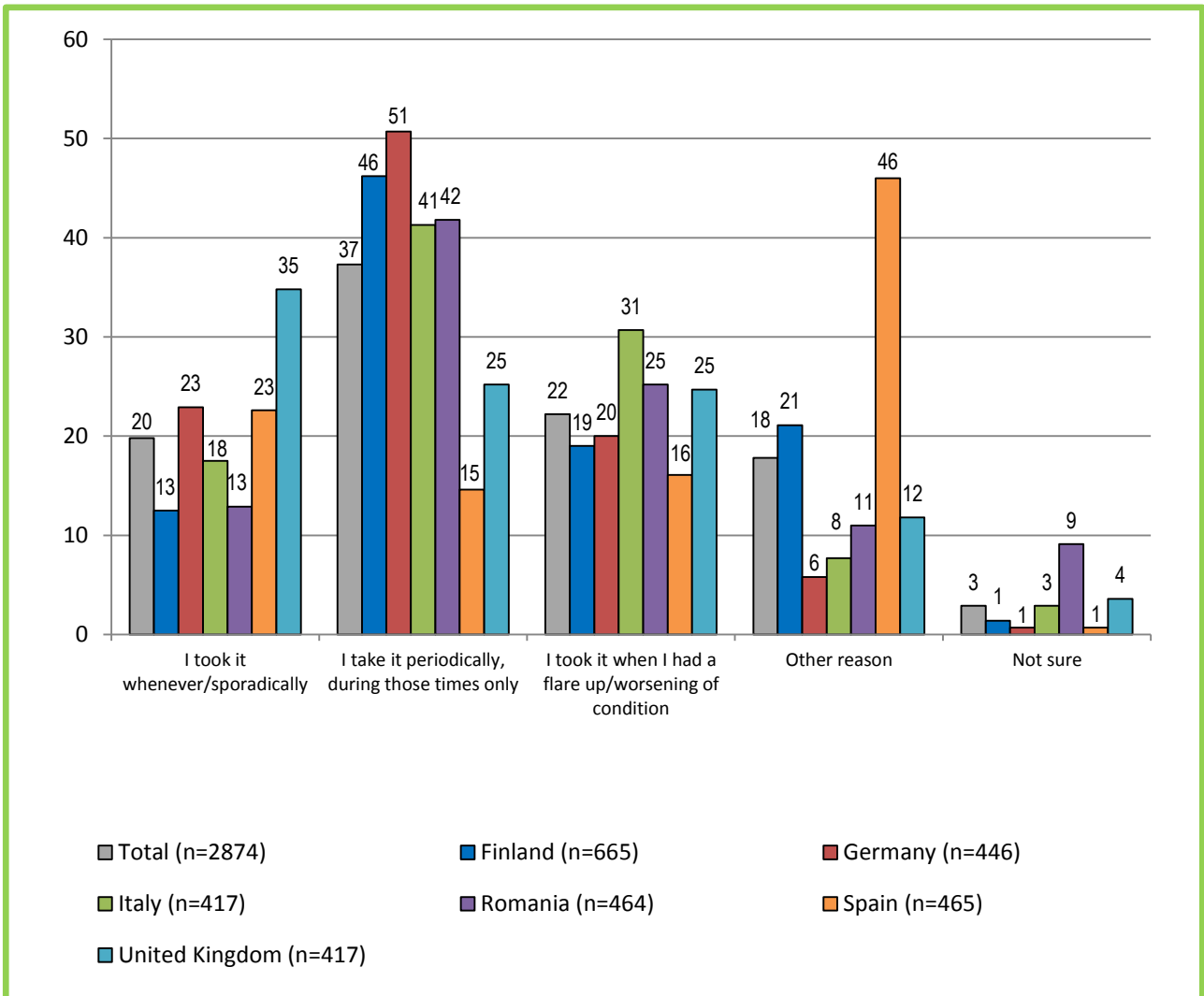


# The PlantLIBRA PFS Consumer Survey

## Key finding 11

In 4 out of 6 countries most consumers take these products “periodically”

PFS usage patterns (%), per product used by a respondent, by country



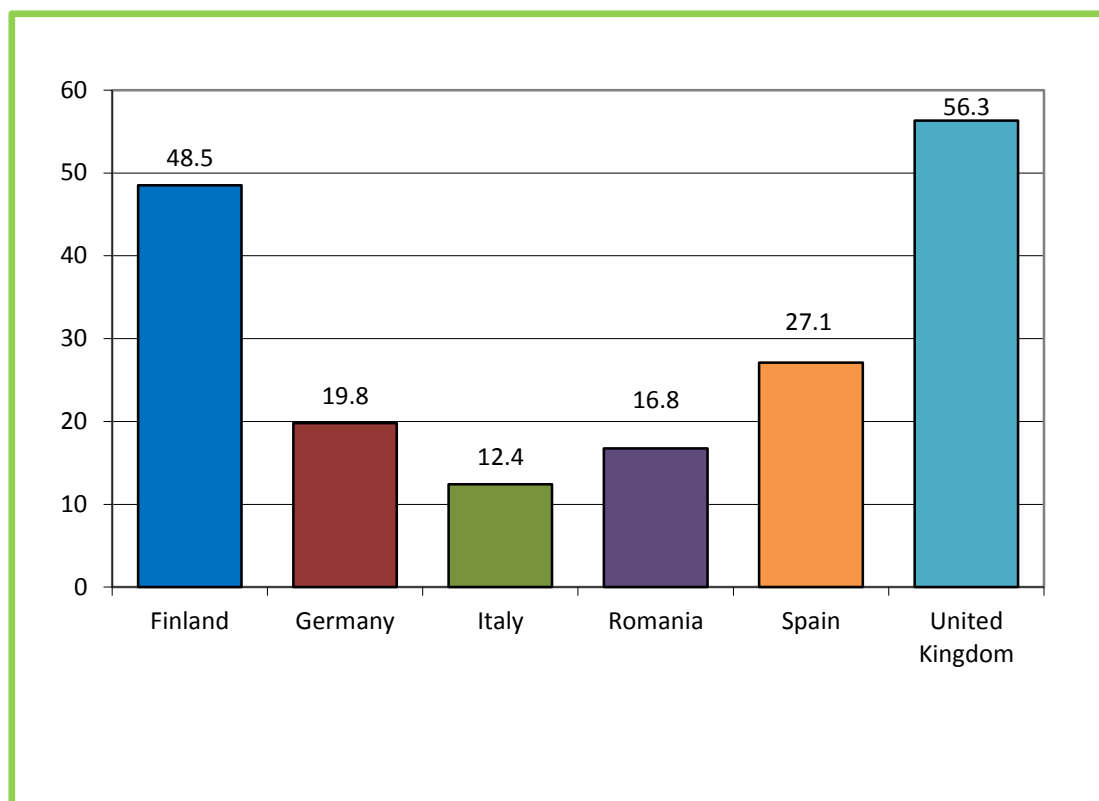




## Key finding 12

The United Kingdom and Finland are the countries with the most "all-year-round" PFS users

Distribution of consumers that have taken PFS all year round (%), by country



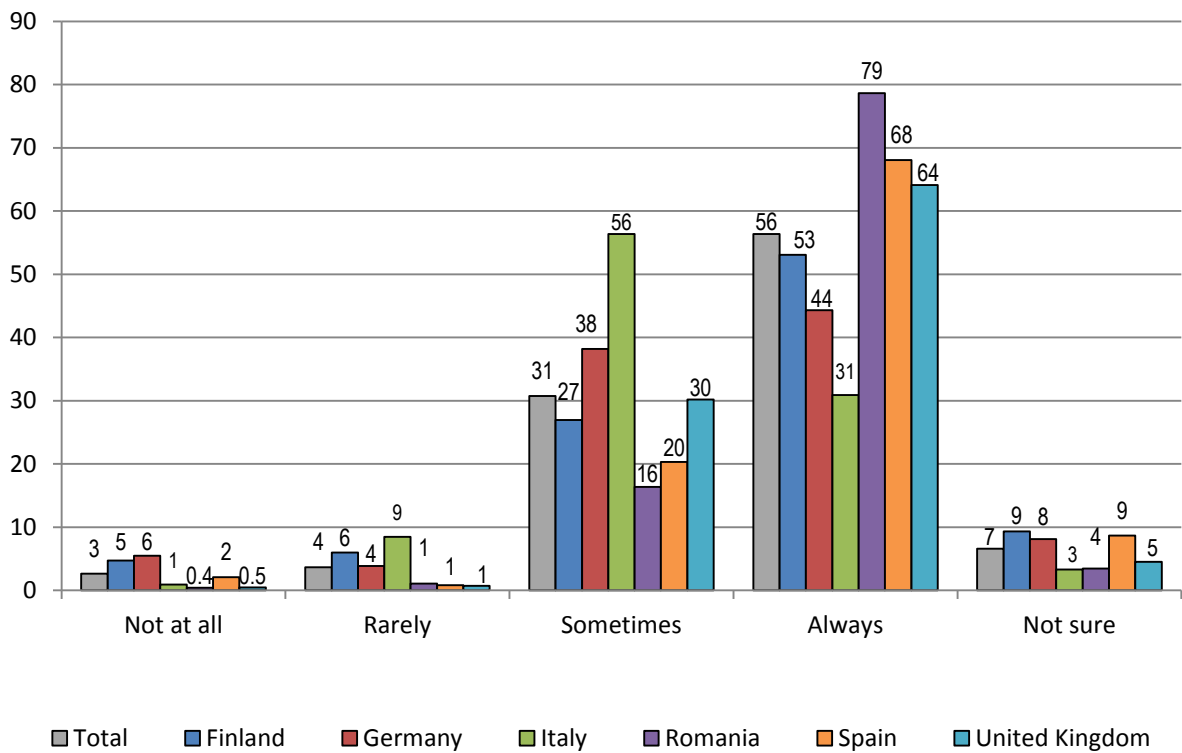


# The PlantLIBRA PFS Consumer Survey

## Key finding 13

At least 50% of PFS users report that the product “always” helps them

Level of confidence: “Do you think the product helps you?”, by country



## CONFIDENTIALITY

All data collected in this survey are used for statistical purposes only and interviews were conducted by a market research organization (European Fieldwork Group) in strict accordance with the ICC/ESOMAR Code on Market and Social Research, and therefore, are guaranteed by law to be held in the strictest of confidence.

## FUTURE USES OF PlantLIBRA PFS CONSUMER SURVEY DATA

### Can be used by

- Policymakers
- PFS industry
- Consumers
- Academics
- Other researchers
- Health professionals

### Can be used to

- Provide PFS usage data at EU level (six countries) in order to:
  - Provide data on the nature and frequency of PFS usage
  - Obtain a socio-demographic and lifestyle-related profile of the PFS consumer
  - Identify the most frequently used botanical ingredients in these PFS products
  - Highlight the issues associated with measuring usage of PFS in European populations and make recommendations for future research
- Provide PFS usage data for risk-benefit and safety assessment of PFS consumption, in order to:
  - Provide consumers with more information to help them make more conscious decisions about their PFS use
  - Provide health professionals with knowledge to advise patients/consumers
  - Provide policymakers with more information for regulation of the sector





## PlantLIBRA PFS CONSUMER SURVEY DATA DISSEMINATION AND ACCESS

### PlantLIBRA PFS Consumer Survey team

Fundación para la Investigación Nutricional (FIN) - Spain (leader and coordinator)  
Elintarviketurvallisuusvirasto (EVIRA) - Finland  
Phytolab GmbH - Finzelberg (PLFIN) - Germany  
Università degli Studi di Milano (UMIL) - Italy  
Universitatea Transilvania din Brasov (UTBV) - Romania  
University of Surrey (UNIS) - United Kingdom

### Brochure's production team

#### Content

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Elintarviketurvallisuusvirasto (EVIRA) - Finland  
Phytolab GmbH - Finzelberg (PLFIN) - Germany  
Università degli Studi di Milano (UMIL) - Italy  
Universitatea Transilvania din Brasov (UTBV) - Romania  
University of Surrey (UNIS) - United Kingdom

#### Design & dissemination

Società italiana di scienze applicate alle piante officinali ed ai prodotti per la salute (SISTE) - Italy

### Further information

Visit the PlantLIBRA Project website [www.plantlibra.eu](http://www.plantlibra.eu)

## PFS use in 6 EU countries

*This project has received funds from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n° [245199]*

*This report does not necessarily reflect the Commission's views or its future policy on these areas.*

