



# VET 2020

## Development of European Educational Strategies: Design of Veterinarian Profiles Identified by Market Needs for the Year 2020

September 2002



**DG for Education & Culture**



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Development of European educational strategies: Design of veterinarian profiles identified by market needs for the year 2020



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*Nomisma is a private economic research and policy institute, founded as a joint-stock company in Bologna in 1981. Around one hundred shareholders, drawn from among banking institutions, private firms and Italian and international financial groups, provide its financial capital.*

*The company carries out research, consultancy and technical assistance activities at the international, national and local levels. The projects carried out address different aspects of the real economy; production factors, sectoral economics, enterprise, development and growth problems, and, generally, the phenomena which influence the structure, behaviour and performance of contemporary economies.*



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## EXECUTIVE SUMMARY

### **The objectives**

The main aim of the VET2020 research project concerns the development of European educational strategies and the definition of the design of veterinarian profiles identified by market needs for the year 2020.

In particular, the VET2020 project aims to identify:

- ✚ Forecasts of the labour market demand for veterinarians through 2020;
- ✚ Forecasts of the development of traditional professional activities through 2020;
- ✚ Identification of new professional spheres through 2020;
- ✚ Strengths and weaknesses of the veterinary education and profession

This project, undertaken under the auspices of research activity supported by the European Union's Socrates Programme, was coordinated by the Faculty of Veterinary Medicine of the Technical University of Lisbon, and was undertaken by Nomisma, an Italian economic research institute. This research enjoyed the invaluable support and co-operation of the principal European faculties of veterinary medicine.

The research activity has involved 20 European countries: 13 EU Members (Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, Sweden, United Kingdom) – defined in this report as EU Countries – and seven countries that are not members of the European Union (Czech Republic, Hungary, Norway, Poland, Romania, Slovak Republic, Slovenia) – defined as Non EU Countries.

### **The project**

The VET2020 project is divided into two phases of research:

#### **PHASE A – Veterinary Profession Outlook**

In this phase of activity the principal demographic indicators of the veterinary sector were elaborated using the most recent data (number of faculties, students, veterinarians).

#### **Phase B – Realisation of the Survey VET2020**

The second phase of the project entailed an original sample survey focusing on principals with direct experience in the veterinary field or those with a thorough knowledge of the principal characteristics and changes affecting the future of the veterinary profession.

In particular, the following were carried out (numbers in brackets refer to completed questionnaires):

#### **1. Veterinarians Survey - VET Survey (823)**

The VET Survey focused on veterinary professionals operating in different fields: practitioners, government veterinarians, professors or university researchers, veterinarians employed in industry.

## 2. VET Organisations and Employers of Veterinarians Survey - Employers Survey - (236)

For the Employers Survey, companies involved in the food sector, feed and pharmaceutical industries as well as veterinarian organisations were surveyed; these participants represented those who directly employ or can furnish employment to veterinarians.

## 3. Consumer Organisations Related to Veterinary Service Survey - Consumer Organisations Survey - (III)

The Consumer Organisations survey was aimed at associations whose members are habitual users of veterinary services.

For all three surveys, data was collected through questionnaires distributed by e-mail. Further details on how data was collected and processed can be found in Chapter I of this report.

### Main Results

The first important finding, confirmed by all three surveys, regards the increase in the number of veterinarians employed in 2020. 58.3% of the responses received from all the 20 countries covered in the VET Survey indicated that they expected growth in the number of employed veterinarians in 2020. Analogous predictions emerged in the other two surveys: 76.1% of respondents to the Employers Survey and 54.1% of the participants in the Consumer Organisations Survey in the 20 countries indicated growth as well.

Growth predictions are confirmed for both the European Union and Non EU Countries, with some differences in intensity, as can be seen in the following table. The balance represents the difference between those who indicated an increase and those who predicted a decrease, net the proportion of those who foresaw no change at all.

The prediction of an increase in professional opportunities for veterinarians in 2020 with respect to the present constitutes an important result of the survey, confirmed not only in the different geographical areas but also reinforced by the expectations of those who utilise professional veterinary services.

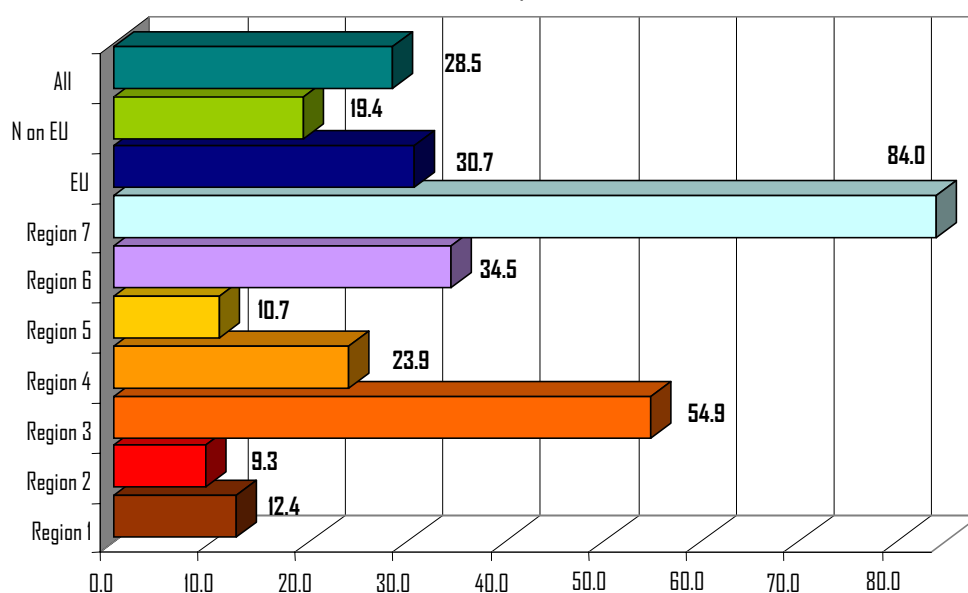
### The Estimated Change in the Number of Employed Veterinarians in 2020 in the Country of the Respondents – A Comparison of the Three Surveys

	EU Countries			Non EU Countries			Total Countries		
	VET	EMPL	CONS ORG	VET	EMPL	CONS ORG	VET	EMPL	CONS ORG
	%			%			%		
No change	8,0	8,1	15,4	5,9	14,8	30,2	7,6	9,2	18,1
Moderate increase	40,5	64,4	45,0	42,7	47,1	46,2	41,0	61,6	45,2
Sharp increase	19,2	13,9	10,9	9,8	17,6	0,0	17,3	14,5	8,9
Moderate decrease	19,4	8,9	18,3	25,4	14,8	23,3	20,6	9,8	19,2
Sharp decrease	9,7	1,1	6,9	7,6	3,4	0,3	9,3	1,5	5,7
NA	3,2	3,6	3,4	8,6	2,4	0,0	4,3	3,4	2,8
<b>Total</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>
<b>Balance</b>	<b>30,7</b>	<b>68,3</b>	<b>30,7</b>	<b>19,4</b>	<b>46,4</b>	<b>22,6</b>	<b>28,5</b>	<b>64,8</b>	<b>29,2</b>

Source: Nomisma VET2020 Survey

In the VET Survey it was possible to verify the intensity of forecasted levels of growth in various areas of the continent. The following graph shows the balance in the seven identified regions.

**Regions: The Estimated Change in the Number of Employed Veterinarians in 2020 in the Country of the Respondent: Balance**  
*Veterinarians Survey - Question 23*



Region 1 (UK, IrI); Region 2 (E, P); Region 3 (B, Fr, NI); Region 4 (D, Pl, Ro);  
 Region 5 (A, Cz, Hu, Slo, SK); Region 6 (I, El); Region 7 (S, N, Fin)

To better understand the directions of such growth and spell out the implications for training and educational requirements, the investigation conducted an in-depth analysis into the opportunities Non EU with individual professional fields of veterinary medicine.

The following three figures synthesize the results of the forecasts referring to veterinarians employed in different fields of activity in 2020. The forecasts for veterinary employment in each field were formulated taking into consideration the prevalence of the responses furnished by the respondents. They are listed in decreasing order in terms of the percentages of respondents who, respectively, expected growth, stability and decrease in job opportunities. Furthermore, the diagrams illustrate the differences between results in European Union Countries and the Non EU Countries.

**According to your estimate, what will be the change in the number of employed veterinarians in 2020 in your country in the following fields?**

*Veterinarians Survey - Question 24*

	EU Countries	Non EU Countries	Total
	Food Quality & Safety Exotic Animal Public Health Alternative Medicine Environmental Protection Animal Welfare Pet/Companion Animal Epidemiology Organic Farming	Pet/Companion Animal Food Quality & Safety Environmental Protection Animal Welfare Sport Animal Public Health Exotic Animal Alternative Medicine	Food Quality & Safety Public Health Exotic Animal Environmental Protection Alternative Medicine Animal Welfare Pet/Companion Animal Epidemiology Organic Farming Research & Development
	Sport Animal Research & Development Aquaculture/Fish Farming	Epidemiology Aquaculture/Fish Farming Research & Development Animal Breeding Organic Farming	Sport Animal Aquaculture/Fish Farming
	Experimentation on animal Herd Health Animal Breeding	Herd Health Experimentation on animal	Experimentation on animal Herd Health Animal Breeding

**According to your estimate, what will be the change in the number of employed veterinarians in 2020 in your country in the following fields?**

*Employers Survey - Question 2*

	EU Countries	Non EU Countries	Total
	Food quality and safety Pet/Companion Animals Alternative Medicine Environmental protection Public Health Animal Welfare Exotic Animals Organic Farming	Food quality and safety Environmental protection Animal Welfare Public Health Organic Farming Pet/Companion Animals Alternative Medicine Herd Health Epidemiology Research and development Exotic Animal Herd Health	Food quality and safety Environmental protection Pet/Companion Animals Public Health Animal Welfare Alternative Medicine Exotic Animals Organic Farming Epidemiology Herd Health
	Research & Development Animal Breeding Sport Animal Experimentation on animal Aquaculture/Fish Farming	Aquaculture/Fish farming Experimentation on animals Animal Breeding Sport Animals Exotic Animals	Research and development Sport Animals Aquaculture/Fish farming Animal Breeding Experimentation on animals
	Herd Health		

**According to your estimate, what will be the change in the number of employed veterinarians in 2020 in your country in the following fields?**

*Consumer Organizations Survey - Question 2*

	EU Countries	Non EU Countries	Total
	Food Quality & Safety Public Health Animal Welfare Alternative Medicine Pet/Companion Animal Environmental Protection Epidemiology Herd Health Research & Development Organic Farming Exotic Animal	Environmental Protection Animal Welfare Food Quality & Safety Public Health Organic Farming Herd Health Pet/Companion Animal Sport Animal Epidemiology Research & Development Alternative Medicine	Food Quality & Safety Public Health Animal Welfare Environmental Protection Pet/Companion Animal Alternative Medicine Herd Health Epidemiology Organic Farming Research & Development Sport Animal
	Animal Breeding Sport Animal	Aquaculture/Fish Farming Experimentation on animal Animal Breeding Exotic Animal	Animal Breeding Exotic Animal
	Experimentation on animal		Experimentation on animal

All three groups surveyed shared the opinion that the number of veterinarians who will find work in the field of "Food Quality and Safety" in 2020 will increase. There are, however, some differences at a geographical level in terms of the growth expectations for Other fields of professional activity, which can be identified by observing the preceding diagrams.

Furthermore, it should be noted that among the professional fields where a decrease in job opportunities has been predicted over the long-term, "Experimentation on Animals" was prevalent (only the Employers predicted stability in the number of jobs in this field).

Chapter 3 of the report provides further details relating to the analysis of forecasts of the number of veterinarians employed by type of activity.





# Chapter 1

## STRUCTURE OF THE SURVEY

### 1.1 Objectives

The main objective of the research project VET2020 is developing European educational strategies and defining the design of veterinarian profiles as identified by market needs for the year 2020.

Thus, the main aim of the project is to define the occupational prospects and development paths of the veterinary profession over the long-term perspective through 2020 through an evaluation of demand in professional fields that has a capacity to employ large numbers of individuals.

The VET2020 project aims to identify the following:

- ✚ Forecasts of the labour market demand for veterinarians through 2020;
- ✚ Forecasts of the development of traditional professional activities through 2020;
- ✚ Identification of new professional areas through 2020;
- ✚ Strengths and weaknesses of veterinary education and the veterinary profession

This research activity involved 20 European countries: 13 belonging to the European Union<sup>1</sup> (Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, Sweden, and the United Kingdom) – defined in the report as EU Countries – and seven countries which are not members of the European Union (Czech Republic, Hungary, Norway, Poland, Romania, Slovak Republic, and Slovenia), defined as Non EU Countries.

The project, carried out under the umbrella of research supported by the EU's Socrates Programme, was coordinated by the Faculdade de Medicina Veterinária, Universidade Técnica de Lisboa, Portugal and was fulfilled thanks to the invaluable collaboration of principal European university faculties<sup>2</sup>.

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<sup>1</sup> Two EU Countries were not included in the VET2020 Project: Luxembourg, since there is no veterinary school/course and Denmark that was contacted but replied that they were not ready to join the project at that stage.

<sup>2</sup> It is opportune to give our heartfelt thanks to all the people who actively collaborated in the realization of this ambitious project and in particular the following persons: the European Commission, the Directorate General for Education and Culture, the Federation of Veterinarians of Europe (FVE), the European Association of Establishments for Veterinary Education, the members of the Steering Committee - Prof. Dr. Tito Fernandes, Project Co-ordinator, President of EAEVE, Prof. Dr. Josef Leibetseder, University of Veterinary Medicine, Vienna, Prof. Dr. Heriberto Rodriguez, SLU, Sweden, Prof. Dr. Rudolf Leiser, Faculty of Veterinary Medicine, Giessen, Prof. Dr. Chris Gaskell, Faculty of Veterinary Medicine, Liverpool, Prof. Dr. Julie Fitzpatrick, Faculty of Veterinary Medicine, Glasgow, Prof. Dr. Cristina Vilela, Faculty of Veterinary Medicine, Lisboa, - and the following individuals from Partner Countries Co-ordinators: Prof. Dr. Werner Swannet - Belgium; Prof. Dr. Petr Horin, Prof. Dr. Iva Steinhauserova - Czech Republic; Prof. Dr. Hannu Saloniemi - Finland;

**Graph 1.1 – Countries Taking Part in the Research Project.**







This report outlines the approach applied in the research project, presenting the main results of the methodology developed in order to achieve such objectives.

The project can be divided into two research phases:

### **PHASE A – Veterinary Profession Outlook**

In this phase, a methodology was developed which permitted the defining of the principal indicators of the veterinary sector and established all the necessary elements with which to implement the successive phase of research.

Through careful bibliographic research and close collaboration with the main faculties of veterinary medicine of the 20 European countries involved in the survey, which supplied and validated the data making up this report, the following indicators have been defined:

-  The number of veterinarians and students,
-  The distribution of veterinarians according to specialisation,
-  The change in the number and gender of students over time,
-  The number of principal livestock species.

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Prof. Dr. Xavier Mahler and Prof. Dr. Jean François Chary, – France; Prof. Dr. Spiros Kyriakis – Greece; Prof. Dr. Laszlo Fodor – Hungary; Prof. Dr. Michael Monaghan – Ireland; Prof. Dr. Stefano Ginotti – Italy; Prof. Dr. Lars Moe – Norway; Prof. Dr. Jersey Kita – Poland; Prof. Dr. Horia Cernescu – Romania; Prof. Dr. Pilipcinec – Slovak Republic; Prof. Dr. Milan Pogacnik – Slovenia; Prof. Dr. Juncal González Soriano – Spain; Prof. Jean de Gooijer – The Netherlands.



## **PHASE B – Carrying Out VET2020 Survey**

The results emerging from the analysis of documents in Phase A, although realised in an in-depth and critical manner, did not provide all of the elements necessary to gain an understanding of, for example, the demand for veterinary services in 2020, new fields of specialisation or the veterinary fields with the best employment prospects, nor did they help in establishing the strengths and weaknesses of the current system. The VET2020 Survey was found to be the best method to compensate for this lack of specific information. This also allows the successive phases of the project to be based on less extemporaneous knowledge.

In order to complete the analysis of the sector, it was necessary to collect further information, both qualitative and quantitative, Non EU with the perceptions of employment prospects in the veterinary field, in order to gain a better estimation of new fields and specializations and the dynamics that will affect the development of the veterinary profession through 2020.

In this phase, research activity entailed an original sample survey of the principal interlocutors either directly involved in the veterinary field or with an intimate knowledge of the principal elements and changes that may affect the sector in the future.

Therefore, the project comprises a survey that has been conceived to try to respond to on-going debates at various levels, focusing on the dramatic changes that the veterinary profile and role are currently undergoing, and that will have a relevant impact on the profession and on veterinary education.

To such an end, the survey was designed and addressed to principal actors in the field. There were three different types of surveys, each with a specific questionnaire. In order to obtain a comprehensive overview of the scenarios that may affect the veterinary profession in 2020, representatives of the profession both offering and seeking employment were interviewed.

The survey was divided into three components:

### **VET Responders**

- ✓ Veterinarians Survey (VET Survey)

### **Non VET Responders**

- ✓ VET Organization and Employers of Veterinarians Survey (Employers Survey)
- ✓ Consumer Organizations related to veterinary service Survey (Consumer Organisations Survey)

The Veterinarians Survey interviewed practising veterinarians.

In order to take into consideration the opinions of different veterinary specializations, six categories were targeted for the survey:



1. Practitioners – Small/Companion animals
2. Practitioners – Large/Production animals
3. Practitioners – Mixed animals (both Small and Large animals or specialists in other animal species, e.g., exotic animals)
4. Veterinarians from Government/Public sector (e.g., ministries, legislators, central and regional veterinary administrators, responsible for public health or disease surveillance activities, etc.)
5. Education and Research (e.g., academics and researchers)
6. Veterinarians from Industry (e.g., feedstuff industry, food industry, pharmaceutical industry, organic production, etc).

In formulating the results for each country, the researchers applied a statistical methodology (system of weight) in order to obtain the same proportion of responses of each target in each country.

In particular, the proportion of each target used in the analysis of the results are as follows:

1. Practitioners – Small/Companion animals	(17.1 %)
2. Practitioners – Large/Production animals	(17.1 %)
3. Practitioners – Mixed animals	(5.7 %)
4. Veterinarians from Government/Public sector	(20.0%)
5. Education and Research	(20.0%)
6. Veterinarians from Industry	(20.0%)

The use of this methodology allows the direct comparison of the results of each country

With regard to Employers, questionnaires were sent to companies and organisations involved in sectors representing the principal areas of activity of the veterinary profession, entities which directly employ or could employ veterinarians. In particular, the following were surveyed:

1. *Companies:*
  - Food Industry
  - Feed Industry
  - Pharmaceutical Industry
2. *VET Organizations:*
  - Practitioner Associations
  - Veterinary Chamber or Councils
  - Unions
  - Public Administrative Bodies

The Consumer Organisations Survey was addressed to generic associations that make use of veterinary services.

In particular, questionnaires were sent to the following types of organisations:

1. Associations of Farmers
2. Associations for Animal Welfare

3. Association of Breeders
4. Association of Consumer Protection
5. Association of Environmental Protection

## 1.2 Sample Design and the Methodology of the Survey

### ***1.2.1 VET Survey***

The sampling plan defines the selection criteria for entities to be interviewed and describes the process that will ensure the identification of a sample, though limited in number, which will provide an image of reduced scale of the objective reality of the analysis.

It is, however, necessary to explain that with regard to the Vet Survey, the methodology employed was aimed to ensure that the persons chosen to be surveyed were representative of each individual country. Choices took into consideration "typical" elements within the context of reference.

The selection of veterinarians to be surveyed was carried out using registries prepared by the project partners from each of the twenty participating countries.

The registry from each country was comprised of a list of 105 names of veterinarians belonging to each of the six target categories mentioned previously.

Based on these registries, 70 names from each country were randomly chosen to receive the questionnaires.

**The total number of questionnaires completed was 823.** (See paragraph 1.4 of this chapter for more details on how samples were obtained.)

### ***1.2.2 Employers Survey and Consumer Organisations Survey***

For the two surveys aimed at non-Vet responders, the selected methodology followed a different path.

For these two surveys, registries of companies, organisations and associations were supplied by the partners in participating countries. In this case however, the choice of names to be inserted in the list of possible interviewees was not random or at the discretion of the partner, but was prepared taking into consideration the most important companies and associations in each country<sup>3</sup>.

As regards the industry target, each project partner was required to provide respondents' names Non EU with the firms with the highest turnover in the three sectors of activity covered by this survey.

In the same manner, in reference to the Vet Organisation and Consumer Organisations targets, each project partner was requested to identify the respondents' names Non EU with the most important organisations in terms of number of members/number of users.

**The total number of completed questionnaires was 236 for Employers and 111 for Consumer Organisations.**

### ***1.2.3 The Technique of Collecting Data***

The VET2020 project applied an innovative approach in the surveying technique and in the research.

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<sup>3</sup> In order to identify the companies, it was requested of each country partner to refer to the firms' activity code according to the classification Nace Rev. 1: Industry: Nace Rev. 1 Code: Food industry (code: 15 – less than code 15.7), Feed industry (code: 15.7), Pharmaceutical Industry (code: 24.4).



In fact, it was the close collaboration, developed between the Partner Countries, the Steering Committee and Nomisma, which enabled to obtain such ambitious results.

The questionnaire was distributed by e-mail and was filled in by accessing a web page dedicated to the VET2020 survey (e.g., <http://www2.nomisma.it:3110/Vet/index.htm>).

The survey was conducted according to the following process:

- ✓ Initial contact – request for collaboration with VET2020 project by e-mail, with attached Survey presentation letter.
- ✓ Reminder to non-respondents sent at regular intervals, every 10 days, up to a maximum of 5 solicitations.
- ✓ For the fourth and fifth requests to respond, the country partner sent a personal request for collaboration to the non-respondents.

For cases in which the registries prepared by partner countries contained errors in the transmission of requests for survey collaboration, an alternative contact was made, by faxing the questionnaire if possible, or selecting another respondent.

For cases in which no response was received after the third request, a new veterinarian on the registry list was contacted as a precautionary measure. The contacting procedure was the same as described above.

In general, response to the survey was very good. Contact by e-mail was a less intrusive way to conduct the survey, providing more freedom for the respondent to choose the best time in which to complete the questionnaire. This proved to be very useful to the veterinarians and companies and organisations responding. Finally, using e-mail as the method for contacting respondents greatly reduced the time necessary for conducting the survey.

In order to understand the value of collecting data in this manner, it is important to point out that approximately 1,600 veterinarians were contacted for the VET Survey and 823 completed questionnaires were returned, giving a response rate of approximately 50%. A total of 3,600 e-mails were sent, including initial contacts and further requests for collaboration.

With regard to the Employers Survey and the Consumer Organisations Survey, the level of collaboration was much lower than in the Veterinarians Survey, even if it was satisfactory, given the fact that in general more difficulties are encountered in soliciting response when companies and/or organisations are contacted. In fact, for the Employers Survey, around 900 names from VET organisations and companies were contacted by sending ca. 3,000 e-mail messages, including initial contacts and reminders, and 236 completed questionnaires were received.

A similar level of response was experienced in the Consumer Organisations Survey. The number of available contacts was slightly more than 500, around 2,000 e-mail messages were sent, and a response of 111 completed questionnaires was received.

## 1.3 Questionnaires

The questionnaires used in the survey were of a structured type with mainly closed questions. Only in certain questions the possibility existed to provide open or multiple responses.

The text of the questionnaires used in the survey was in English; but in some cases, where considered appropriate, the questionnaires were translated into the language of the respondents, both to increase the number of participants and to avoid problems with comprehension.

The contents of the three questionnaires are described in the following paragraphs. Complete versions are found in Chapter 4 of this report.

### **1.3.1 VET Survey: the questionnaire**

The questionnaire of the VET Survey is organized in three sections:

#### Part I – Respondent Information, sub-divided in:

##### A. Registry card of respondent

The registry record of the respondent contains simple information regarding the survey participant including gender, age, nationality, country of residence, address, fax, telephone and e-mail address.

##### B. Educational Qualifications and Employment

This part of the questionnaire requires more specific information relating to the respondents:

- ✓ University education (faculty and year of graduation – questions 1a e 1b);
- ✓ Post-graduate education and refresher courses (additional qualification and relative fields of refresher courses, Continuing Professional Development in the last three years – questions 2, 2a, 3, 3a);
- ✓ Work experience from graduation to the present (time necessary to find a steady job in the veterinary sector, number of jobs in first three working years, length and location of work during first three years of employment, sector of current job – questions 4, 8, 9, 10, 11, 12);
- ✓ Some initial information on possible employment opportunities in the veterinary profession in 2020 (time required at present and estimated in 2020 to find a steady job, field of activity offering the most opportunity today and in 2020 – questions 5, 6, 7);

##### C. Profession

The group of questions in this part of the questionnaire is dedicated to obtaining more information about characteristics pertaining to:

- ✓ Field of activity of current profession, according to the classification of the six professional targets identified in the design phase of the survey (question 13);
- ✓ Distribution of all types of work experience according to the type of work and fields of activity (questions 14, 15);
- ✓ Identification of most efficient methods and tools for the development of the veterinary career of the respondent and those foreseen for veterinary careers in general in 2020 (questions 16, 17);

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## Part 2 – The Veterinary Education System: Perceptions on Strengths and Weaknesses

This section contains a series of questions relative to the current university system, with the scope of establishing:

- ✓ an overall evaluation regarding the efficiency of the veterinary training offered by the current university system in the country of the respondent (question 18);
- ✓ strengths and weaknesses of the university system (questions 18a e 18b);
- ✓ paths and methods to improve the university model (question 19);
- ✓ areas to better develop and/or introduce into the current veterinary medicine curricula and in curricula of 2020 (question 20);
- ✓ criteria used by new graduates for choosing the main focus of their veterinary activity (question 21);
- ✓ fields of expertise to develop during a university education in order to face the new challenges and the market changes emerging from the national and international context (question 22).

## Part 3 – Employment Prospects for the Veterinary Profession

This section represents the most important part of the questionnaire, since it represents a means by which to forecast the development of the requirements for the veterinary profession over a long term perspective through 2020.

This section includes specific questions to identify:

- ✓ changes in the number of employed veterinarians in 2020, in the country of the respondent (question 23);
- ✓ changes in the number of employed veterinarians in 2020 in some fields (question 24);
- ✓ the main challenges and difficulties in the veterinary profession in 2020 (question 25);
- ✓ the changes that represent the main employment opportunities for veterinarians in 2020 (question 26).

### **1.3.2 Employers Survey: the Questionnaire**

The questionnaire Non EU with the Employers Survey is organized differently from that used for the VET Survey. First of all, considering the type of respondent - companies and veterinary organisations - the questionnaire was much shorter, yet some questions were the same in order to better compare the results with those of the VET survey.

The questionnaire used in this case was of a structured type, with most questions having closed answers. It was composed of two sections:

#### Part 1 – Respondent Information

This part of the questionnaire contained questions allowing the researchers to collect and verify data on the companies and veterinarian organizations surveyed, including the type of activity carried out, year of establishment of the company or organization, and size (number of employees for companies and number of members for veterinarian organisations).

#### Part 2 – Employment Prospects for the Veterinary Profession

The same four questions which were presented in this section of the VET Survey were also presented in this part of the survey. This was done in order to gain an overview of the professional opportunities open to veterinarians from the perspective of possible employers of veterinarians. (questions 1, 2,3, 4).



### **1.3.3 Consumer Organisations Survey: the Questionnaire**

The questionnaire adopted for this survey was very similar to that used for the Employers Survey. Considering the nature of the respondents in this survey, more specific questions were used to gain an understanding of the level of satisfaction with the public and private veterinary services as well as requirements in improving these services. (questions 5, 6, 7, 8).

## **1.4 Responses Obtained**

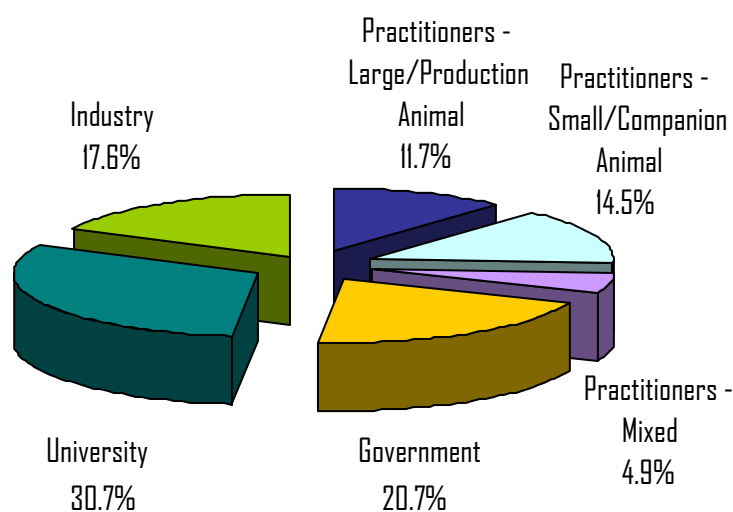
### **1.4.1 VET Survey**

The VET Survey consisted of 823 completed questionnaires.

Graph 1.1 shows the distribution of the respondents in relation to the six types of veterinary professionals identified in the design of the survey.

Results show the highest proportion of responses were from veterinarians in practice (31.3%), followed by veterinarians at universities (30.7%).

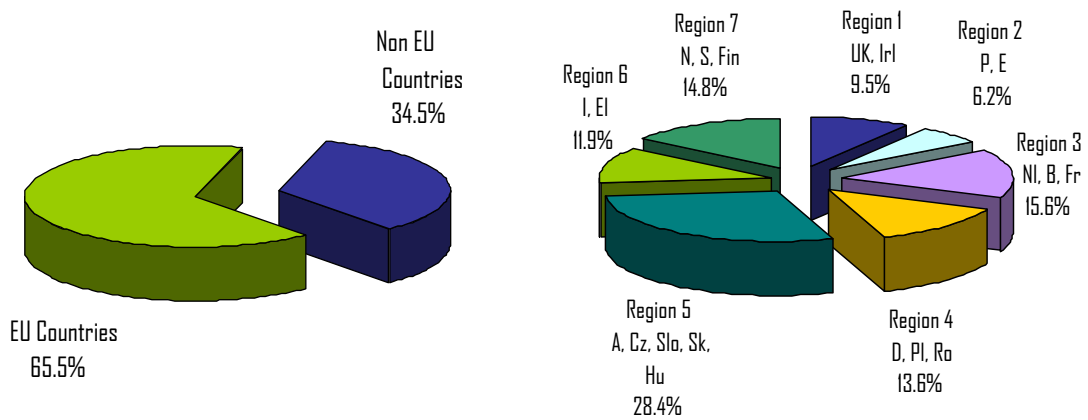
**Graph 1.1 – VET Survey – Responses obtained by Target Professionals**



Source: Nomisma VET2020 Survey

Graph 1.2 shows the geographical distribution of the aggregated EU and Non EU countries' response rates to the questionnaires registering 65.6% and 34.5%, respectively. It further shows the subdivision of the responses by countries aggregated into regions.

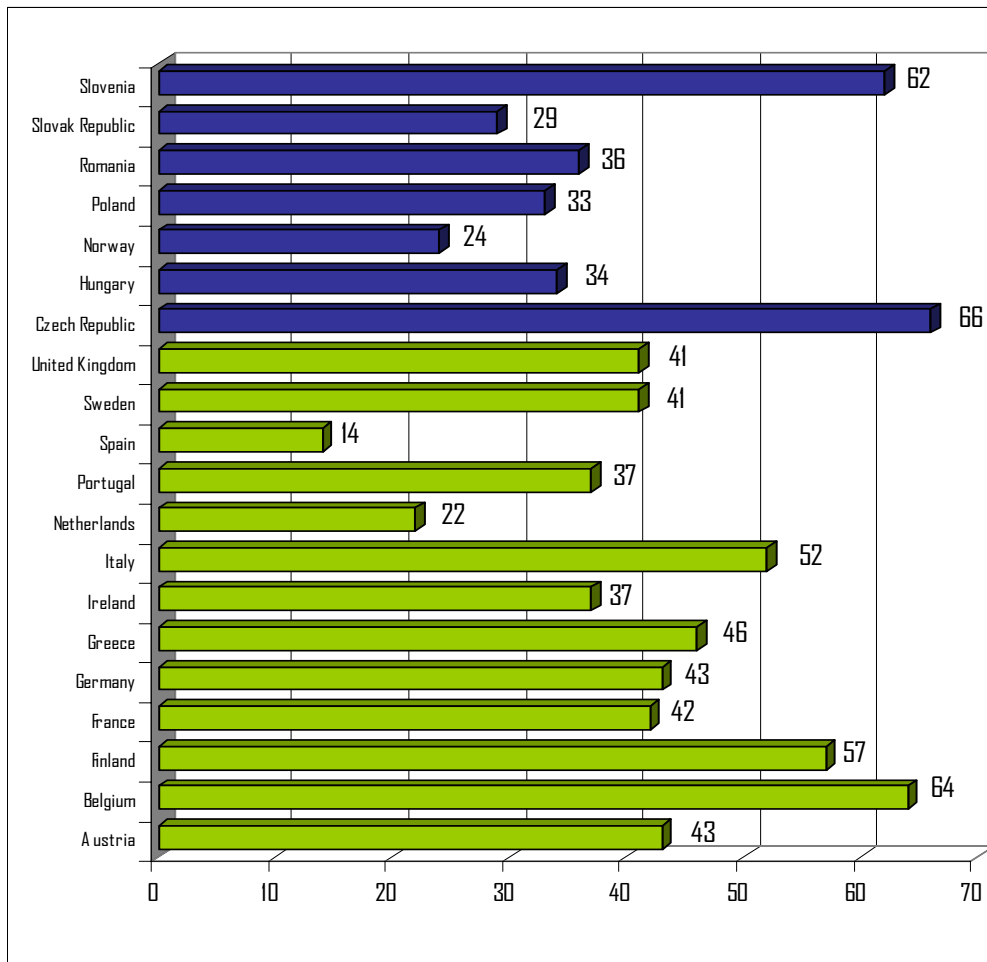
**Graph 1.2 – VET Survey: Responses obtained by geographic area**



Source: Nomisma VET2020 Survey

Graph 1.3 shows the number of questionnaires received from each country.

**Graph 1.3 - VET Survey: Responses obtained by Country**

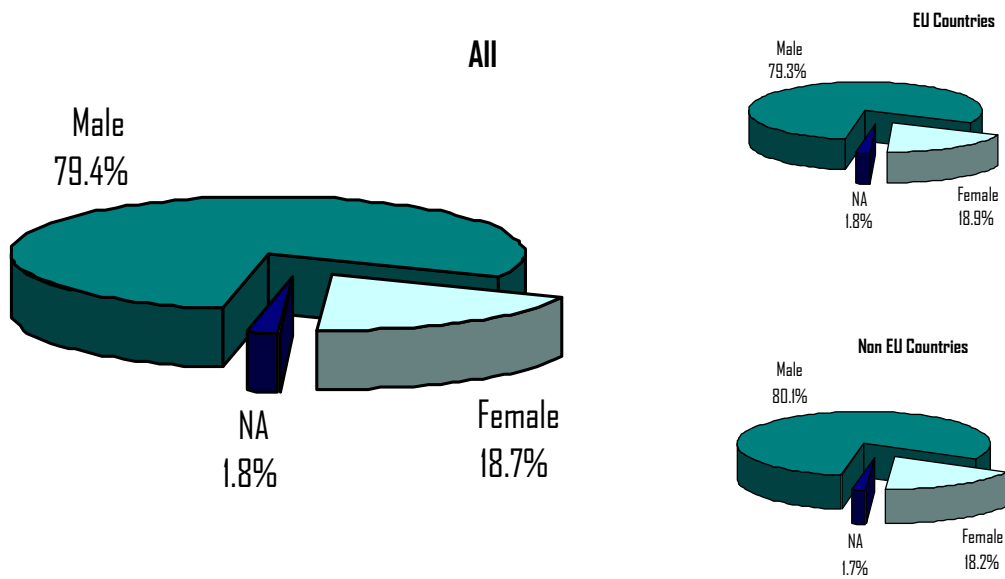


Source: Nomisma VET2020 Survey

The composition of the samples with regard to the principal characteristics of the veterinarians - gender and age - is described in Graph 1.4.

The sample of veterinarians that participated in the survey consisted 79.4% of men and 18.7% of women. The remaining respondents preferred to remain anonymous, giving no indication of gender. The gender proportion of respondents is similar in EU and Non EU countries.

**Graph 1.4 – VET Survey - Gender of the respondents**

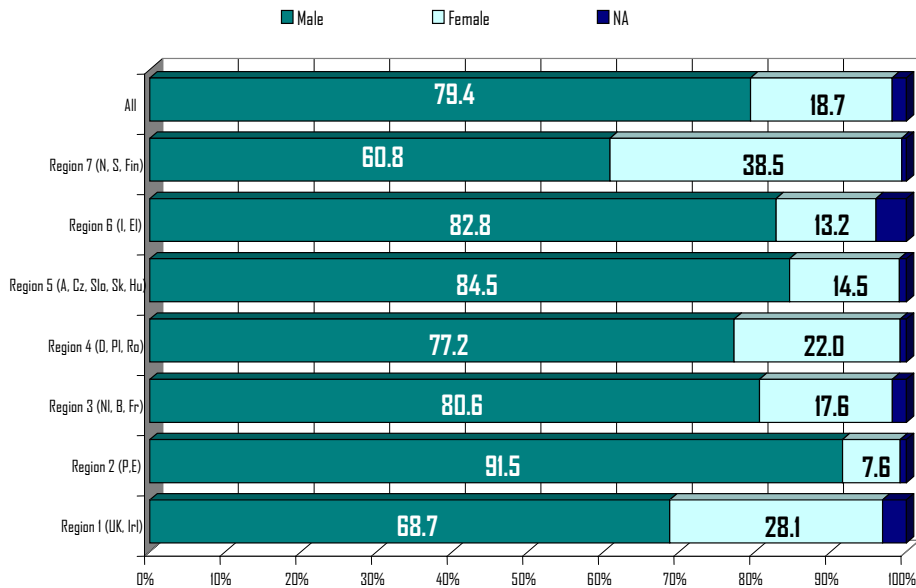


Source: Nomisma VET2020 Survey

Differences in responses can be seen between different regions.

The proportion of male veterinarians is higher in countries of the Region 2 (Portugal and Spain, 91.5%); this proportion remains higher than the share in all 20 countries (79.4%), even in Italy and Greece (Region 6, 82.8%), and those of the Region 5 (Austria, Czech Republic, Hungary, Slovak Republic and Slovenia).

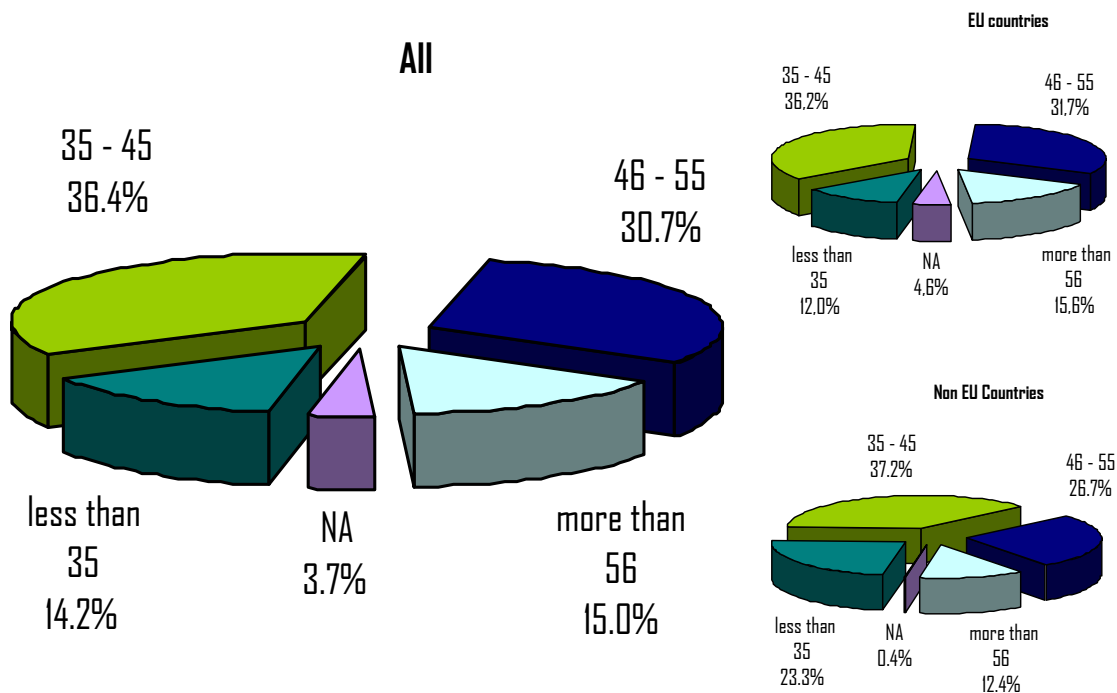
**Graph 1.5 - VET Survey - Gender of the respondents by region**



Source: Nomisma VET2020 Survey

The distribution by age of those interviewed showed that the age groups 35-45 and 46-55 were the largest and both groups make up 67.1% of the total number of respondents. Proportions of respondents under 35 and over 56 were similar in EU and Non EU countries. There was a higher proportion of respondents under 35 in Non EU Countries than in EU countries.

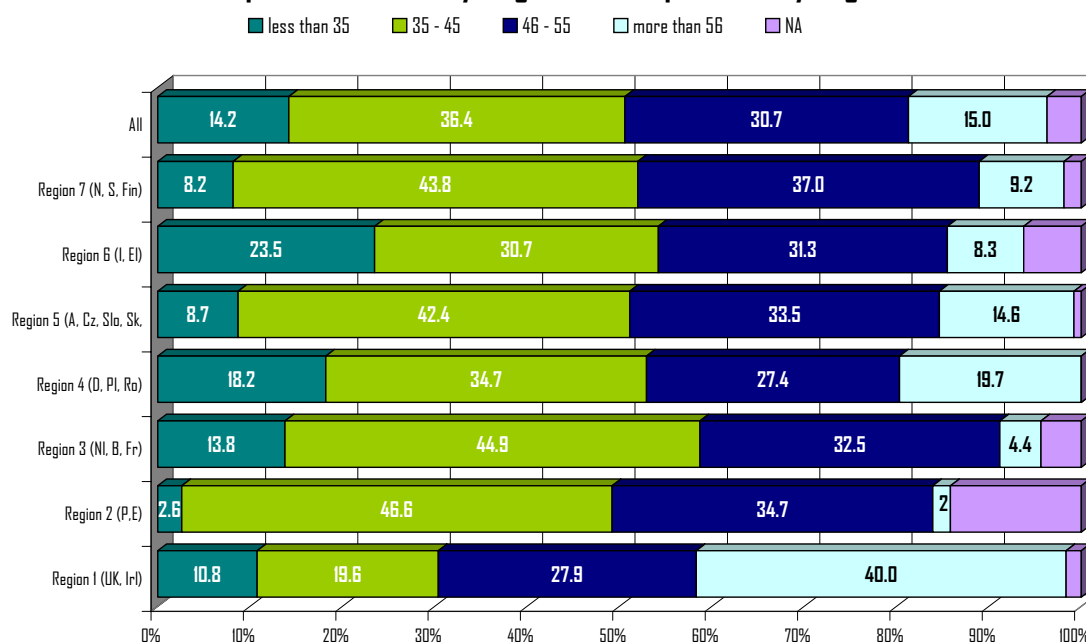
**Graph 1.6 - VET Survey - Age of the respondents**



Source: Nomisma VET2020 Survey

When regions are presented individually, a more detailed picture can be seen. Italy and Greece (Region 6) demonstrate a higher share (23.5%) of respondents in the younger age group (under 35).

**Graph 1.7 – VET Survey - Age of the respondents by Region**



Source: Nomisma VET2020 Survey

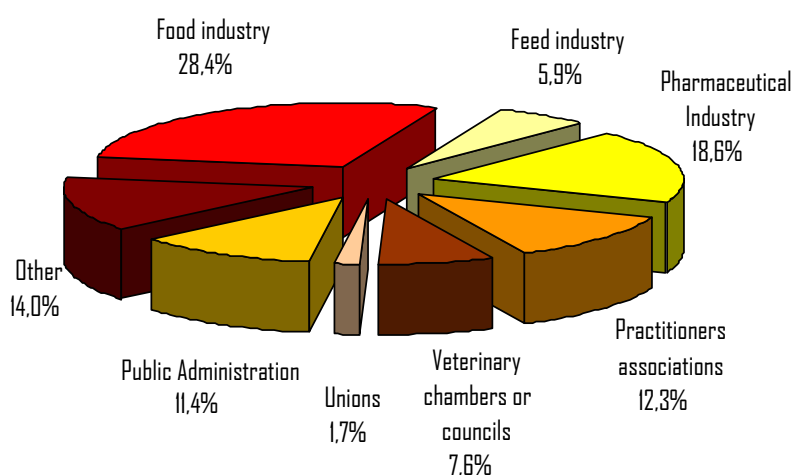
Ireland and United Kingdom (Region 1) showed the opposite, with the highest proportion of the veterinarians (37.0%) falling into the over 56 age group. Region 2 (Portugal and Spain, 46.6%) and Region 3 (Belgium, Netherlands and France, 44.9%) showed the highest shares of veterinarians in the 35-45 age group.

### 1.4.2 Employers and Consumer Organisations Surveys

The total number of questionnaires received for the Employers Survey was 236.

With regard to the distribution of responses Non EU with different types of Employers, the Food Industry provided the largest share of respondents (28.4%).

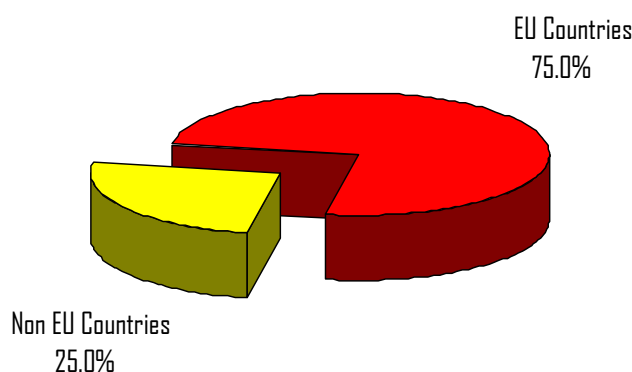
**Graph 1.8 – Employers Survey - Responses obtained by Target of Employers**



Source: Nomisma VET2020 Survey

With regard to geographic distribution, 75% of respondents came from countries belonging to the European Union (Graph 1.9).

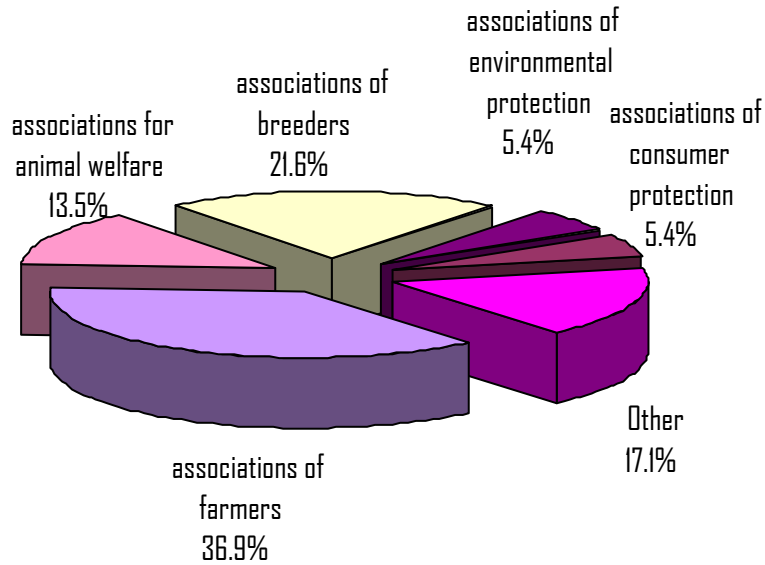
**Graph 1.9 – Employers Survey - Responses obtained by Geographical Area**



Source: Nomisma VET2020 Survey

With regard to the Consumer Organisations Survey, the total number of questionnaires received was 111; the graph 1.10 shows the details of data obtained in terms of different categories of organisations.

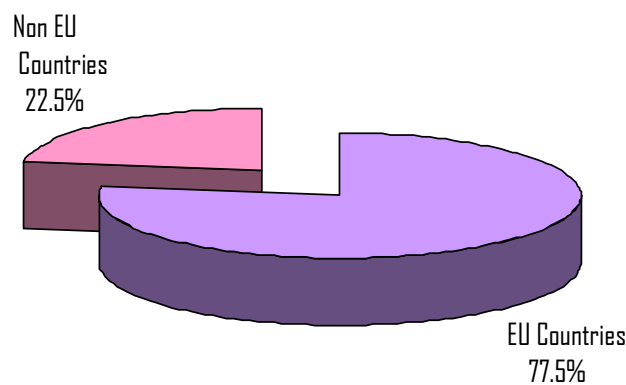
**Graph 1.10 – Consumer Organisations Survey - Responses obtained by Target of Organizations**



Source: Nomisma VET2020 Survey

Graph 1.11 shows the distribution of responses received to the Consumer Organisations Survey in relation to geographical areas.

**Graph 1.11 – Consumer Organisations Survey - Responses obtained by Geographical Area**



Source: Nomisma VET2020 Survey



**As the number of completed questionnaires for these two surveys is smaller than that for the Veterinarians Survey (236 for the Employers Survey and 111 for the Consumer Organisations Survey), the results have not been broken down by regional or country level.**

## 1.5 Interpretation of Data: Guide to the Analysis of Results

With the scope of facilitating the interpretation of the data obtained for this report, it is necessary to clarify the method with which the results were obtained.

In order to obtain valid results relative to the aggregates for All Countries (20 countries involved in the project), EU Countries, Non EU Countries and Regions, a system of weight was adopted for interpretation of the results obtained from each country making up each aggregate, utilising the following:

- 1 - the number of veterinarians present in each country in relation to the VET Survey;
- 2 - the populations of the countries themselves in relation to the Employers Survey and Consumer Organisations Survey.

In the Annex, next to the weight results (EU weight, Non EU Countries weight, Region weight, All weight), there are, results relative to the raw data, without using to the system of weight.

The graphs and tables which describe the main results of the VET2020 Survey are illustrated in chapters 2 and 3 of this report.

The following are indicated for each graph and table:

- 1 the title which is the question used in the questionnaire;
- 2 the survey that the results refer to;
- 3 the number of the question in the questionnaire.

With regard to the geographical analysis, it is necessary to consider the list of regions mentioned below:

Region 1 – United Kingdom, Ireland

Region 2 - Portugal, Spain

Region 3 – The Netherlands, Belgium, France

Region 4 - Germany, Poland, Romania

Region 5 - Austria, Czech Republic, Slovenia, Slovak Republic, Hungary

Region 6 - Italy, Greece

Region 7 - Norway, Sweden, Finland

For further details about the formulation of the questions, the complete versions of the three questionnaires can be found in Chapter 4.



# Chapter 2

## THE VETERINARIAN PROFILE

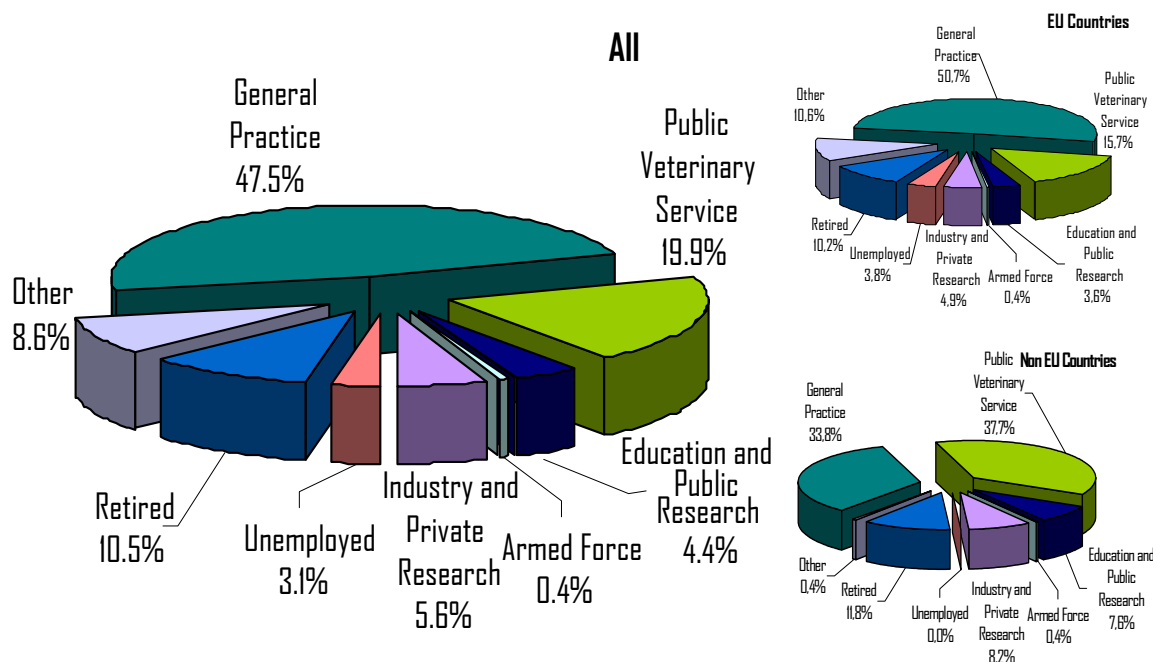
### 2.1 The Demography of the Veterinary Profession

For the twenty European countries covered in this report, it is opportune to define the demography of the veterinarian profession today by identifying the number of veterinarians and the future prospects for the profession in terms of the number of current veterinary students.

**The VET 2020 project puts the number of veterinarians in these countries at 173,427<sup>4</sup>;** approximately three-quarters of these are found in the European Union (139,893) and the remainder reside in the Non EU Countries (33,534).

Graph 2.1 illustrates the distribution of the total number of veterinarians for different areas of the profession.

**Graph 2.1 – Veterinarians in Europe by Professional Field– 2001**



Source: VET 2020 Preliminary Report

<sup>4</sup> Data were provided by the Faculties of Veterinary Medicine involved in the project.



**It is important to point out that the proportion of veterinarians unemployed in 2000 is very low, 3.1% for the 20 countries as a whole (All). In the Non EU Countries, the proportion is negligible.**

The proportion of veterinarians seeking employment in the EU countries is 4.5%, slightly higher than the proportion for all 20 countries included in the survey (All).

**A second important aspect is the share of veterinarians employed in the public sector (Public Veterinary Service, Education and Public Research, Armed Forces). On the whole, this sector accounts for 24.7% of the total European veterinary population. There is a greater difference, however, between the public sector share in the EU and that in the Non EU Countries. In fact, in the European Union, 19.7% of veterinarians work in the public sector, while in the Non EU Countries, this rises to 45.7%.**

In the private sector, General Practice is clearly the area where most veterinarians are employed: more than half (50.7%) of the veterinarians in the European Union and approximately 33.8% of those in the Non EU Countries fall into this category.

Further differences in the proportions of veterinarians employed in different areas can be seen in the "Industry and Research" category.

This proportion is higher than 8% in the Non EU Countries, but is below 5% in countries of the European Union.

The proportion of retired veterinarians in both groups is similar, about 10%.

Graph 2.2 illustrates the distribution of veterinarians by region.

Region 4, with 28.9%, represents the area with the highest proportion of veterinarians; this area includes Germany, Poland and Romania.

Region 3 is the second largest and contains 16.7% of the total number of veterinarians. This region includes France, Belgium and the Netherlands.

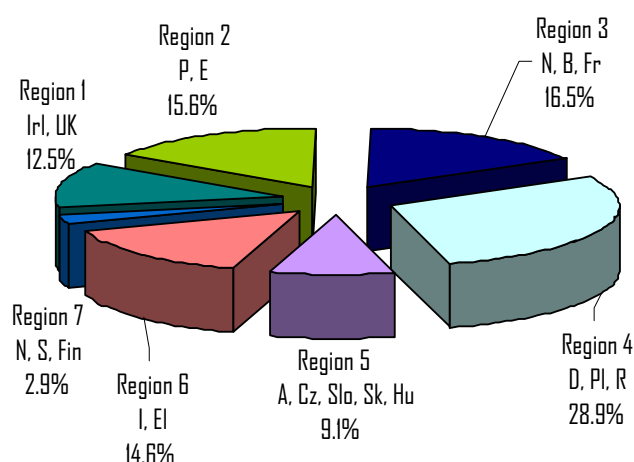
Region 2 (Portugal and Spain) contains about 16.5% of the total number of veterinarians.

Region 6, corresponding to Italy and Greece, has 14.5% of the total; Region 1 (Ireland and the United Kingdom) is ranked slightly below this (12.5%).

Region 5 (Austria, Czech Republic, Slovak Republic, Slovenia and Hungary) accounts for 9.1% of the total number of veterinarians.

Finally, Region 7 (Norway, Sweden and Finland) is home to slightly about 3% of the total number of European veterinarians.

**Graph 2.2 – Veterinarians in Europe by Regions - 2001**



Source: VET 2020 Preliminary Report

For a better understanding of the importance of the veterinary profession in each of the countries involved in the survey, Table 2.1 shows the number of veterinarians per 1,000 inhabitants in each country.

Four of the five most populous European countries - Germany, Italy, the United Kingdom and France - have values more or less similar, ranging from 0.309 per 1,000 inhabitants for France to 0.366 for Germany. Spain is the only big European country with a higher value, 0.620.

The countries with the highest absolute values are the Slovak Republic (0.700) and Slovenia (0.651).

Ireland, Greece and Belgium have values above 0.5.

The countries with the lowest ratio of veterinarians are Sweden (0.196), Finland (0.281) and Poland (0.285).

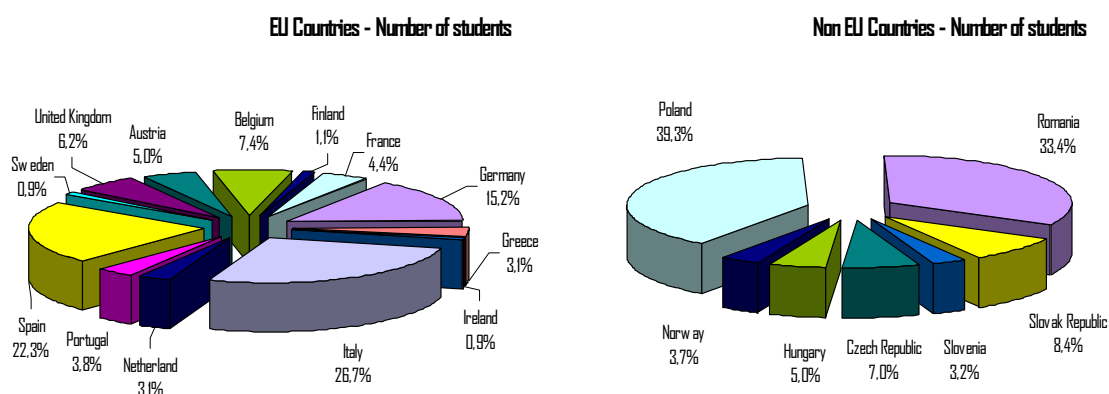
**Table 2.1 – Veterinary Numbers/Population Ratio (per 1000 inhabitants)- 2001**

EU COUNTRIES	Veterinary numbers /population ratio	NON EU COUNTRIES	Veterinary numbers /population ratio
Spain	0,620	Slovak Republic	0,700 *
Belgium	0,569	Slovenia	0,651
Ireland	0,558	Norway	0,411
Greece	0,549	Hungary	0,389 *
Austria	0,382	Romania	0,409 *
Germany	0,366	Czech Republic	0,369 *
Italy	0,340	Poland	0,285
United Kingdom	0,329		
Portugal	0,324		
Netherlands	0,311		
France	0,309		
Finland	0,281		
Sweden	0,196		

Source: VET 2020 Preliminary Report

In order to evaluate the prospects of the veterinary sector, it is opportune to verify not only the number of veterinarians, but also the number of veterinary students. The total number of veterinary students in the 20 countries covered in the survey is 55,305, 82.9% of whom reside in the EU; the remainder being from Non EU Countries. Graph 2.3 illustrates the country shares of students within the EU and the Non EU Countries.

**Graph 2.3 - Veterinary students in Europe- 2000/2001**



Source: VET 2020 Preliminary Report

Italy and Spain alone contain almost half of the entire population of veterinary students in the European Union, with 26.7% and 22.3% of students respectively, followed by Germany (15.2%), the United Kingdom (6.2%), Belgium (7.4%), Austria (5.0%) and France (4.4%).

In the Non EU Countries, about 75% of the total number of veterinary students are concentrated in only two countries: Poland (39.3%) and Romania (33.4%), followed by the Slovak Republic and the Czech Republic.

Here it is also opportune to compare the number of veterinary students to the total population of each country under consideration. This is illustrated in Table 2.2, where the data is presented as veterinary students per 1.000 inhabitants.

Belgium has the highest number with 0.330 veterinary students per 1.000 inhabitants. Austria (0.281) and Spain (0.280) also have a high number of veterinary students per 1.000 inhabitants.

Italy and Portugal (0.174) are in an intermediate position.

France (0.034), Sweden (0.044), the United Kingdom (0.048) and Hungary (0.050) have the lowest values in this ratio.

Belgium, Spain and Austria have an high ratio of veterinary students and a high ratio of veterinary ratio.

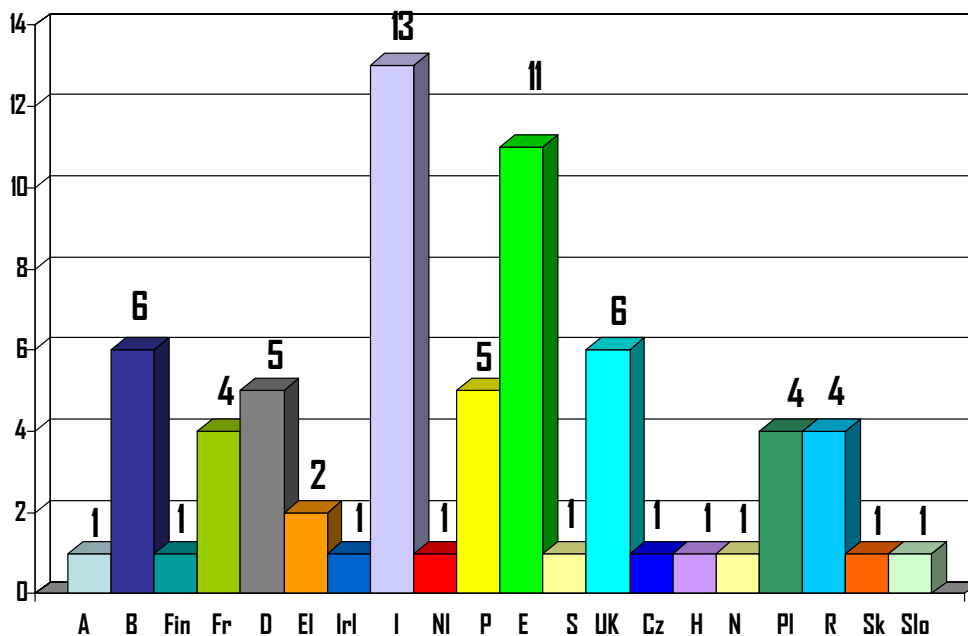
**Table 2.2 – Veterinary Students/Population Ratio (per 1000 Inhabitants)– 2001**

EU COUNTRIES	Veterinary students /population ratio	NON EU COUNTRIES	Veterinary students /population ratio
Belgium	0,330	Slovenia	0,156
Austria	0,281	Slovak Republic	0,146
Spain	0,255	Romania	0,141
Italy	0,213	Poland	0,096
Portugal	0,174	Norway	0,077
Greece	0,134	Czech Republic	0,064
Ireland	0,105	Hungary	0,050
Finland	0,095		
Netherlands	0,089	<b>*year 2001</b>	
Germany	0,084		
United Kingdom	0,048		
Sweden	0,044		
France	0,034		

Source: VET 2020 Preliminary Report

For a complete analysis of the university system, Graph 2.4 illustrates the total number of veterinary faculties present in each country.

**Graph 2.4 – Faculties of Veterinary Medicine in Europe by Country – 2001**



Italy and Spain, with 13 and 10 veterinary schools respectively, have the most schools. With regard to the Non EU Countries, Romania and Poland have the most, with 4 veterinary schools each.

Table 2.3 shows the complete list of veterinary schools and the number of students present in each country.

**Table 2.3 – Veterinary Schools and Numbers of Students (2000-2001)**

Austria	Wien	2.282	Italy	Bari	1.049	Sweden	Uppsala	391
				Bologna	1.397			
Belgium	Ghent	1.199		Camerino	413			
	Antwerp	297		Messina	907	United Kingdom	Bristol	399
	Liège	1.540		Milano	2.360		Cambridge	400
	Namur	455		Napoli	720		Edinburgh	474
	Brussels	127		Padova	790		Glasgow	458
	Louvain L.N.	163		Parma	806		Liverpool	476
		<b>3.383</b>		Perugia	1.019		London	652
				Pisa	863			<b>2.859</b>
Finland	Helsinki	492		Sassari	680			
				Teramo	672	Czech Republic	Brno	659
France	Lyon	543		Torino	584			
	Toulouse	504			12.260	Hungary	Budapest	471
	Maisons-Alfort	498						
	Nantes	493	Netherlands	Utrecht	1.415	Norway	Oslo	345
		<b>2.038</b>						
			Portugal	Évora	210	Poland	Lublin	843
Germany	München	1.668		Lisboa	680		Warsaw	933
	Hannover	1.736		Porto	285		Wroclaw	990
	Giessen	1.412		Vila Real	568		Olshzyn	940
	Leipzig	937		Coimbra (private)				<b>3.706</b>
	Berlin	1.224			<b>1.743</b>			
		<b>6.977</b>				Romania	Cluj-Napoca	782
			Spain	Barcelona	1.096		Iasi	646
Greece	Karditsa	188		Cáceres	827		Timisoara	644
	Thessaloniki	1.234		Cordoba	1.434		Bucarest	1.082
		<b>1.422</b>		Las Palmas	513			<b>3.154</b>
				León	968			
Ireland	Dublin	398		Lugo	1.248	Slovak Republic	Kosice	793
				Madrid	1.395			
				Madrid (private)	150			
				Murcia	793	Slovenia	Ljubljana	301
				Valencia (private)	635			
				Zaragoza	1.157			
					<b>10.216</b>			

Source: VET 2020 Preliminary Report

## 2.2 Basic Characteristics

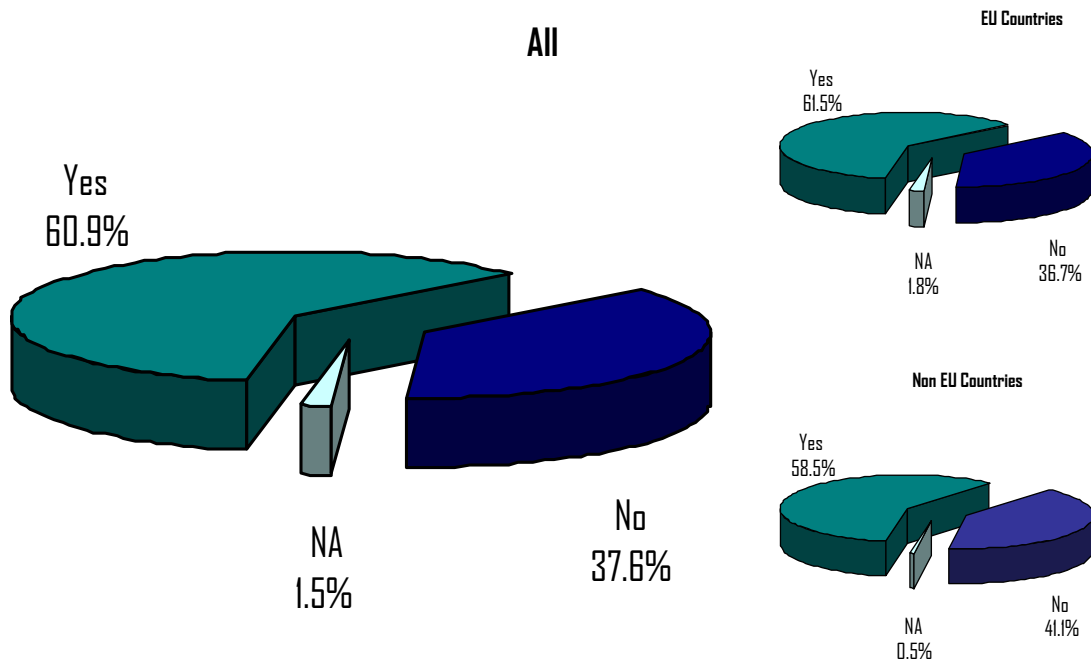
The survey undertaken provides an opportunity to take an in-depth look at the characteristics of European veterinarians. The following illustrates the principal characteristics of the respondents.

In addition to demographic characteristics, discussed in the preceding chapter, studying the profiles of participating veterinarians also permits investigation of characteristics with regard to veterinary education and the profession of the participants.

Graph 2.5 illustrates the number of veterinarians possessing additional qualifications presented as a European Total and the distribution between the EU and Non EU Countries.

The proportion of veterinarians with additional qualification was similar. In the EU countries, the proportion of veterinarians with higher qualifications was 61.5%. This is slightly lower (58.5%) for the proportion of Non EU Countries.

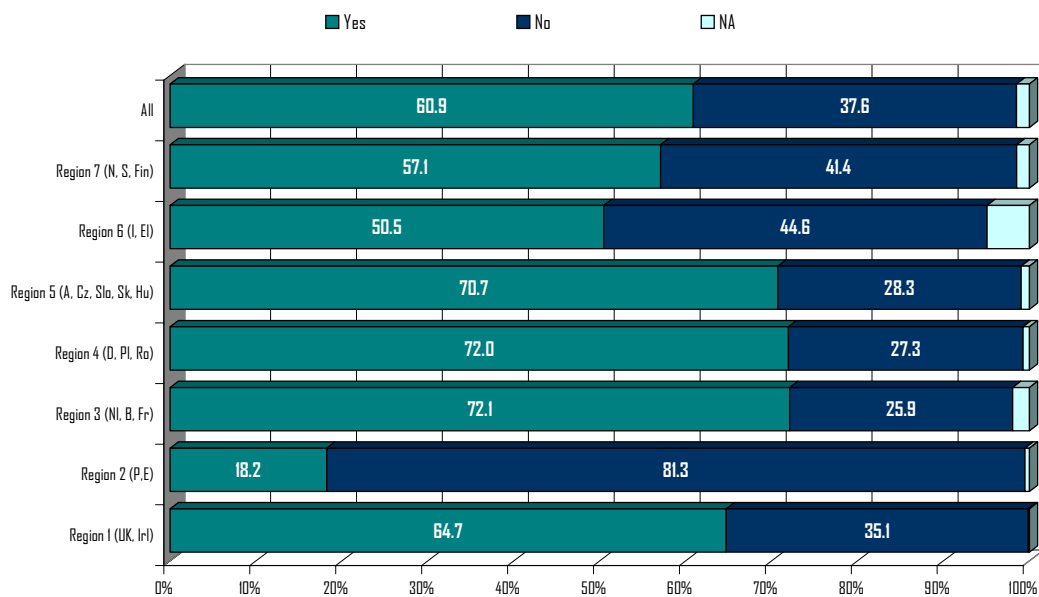
**Graph 2.5 – Did you obtain any additional educational qualification?**  
*Veterinarians Survey - Question 2*



Source: Nomisma VET2020 Survey

A detailed breakdown of additional qualification by region is shown in Graph 2.6.

**Graph 2.6 – Regions: Did you obtain any additional educational qualification?**  
*Veterinarians Survey - Question 2*



Source: Nomisma VET2020 Survey

Region 3 (Netherlands, Belgium and France), Region 4 (Germany, Poland and Romania), and Region 5 (Austria, Czech Republic, Hungary, Slovak Republic and Slovenia) show that more than 70% of veterinarians had additional qualifications.

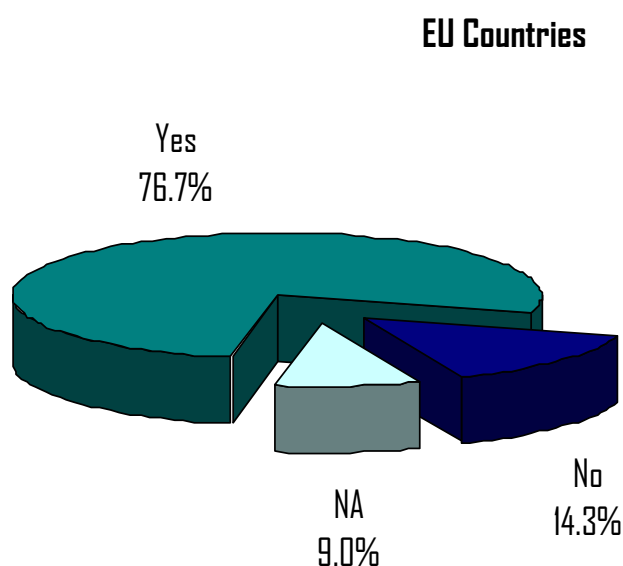
Conversely, Spain and Portugal (Region 2, 18.2%) show a markedly lower proportion of veterinarians with additional qualifications.

Region 7 (Finland, Norway and Sweden, 57.1%) and Region 6 (Greece and Italy, 50.5%) remain below the proportion related to all countries, while the Region 1 (United Kingdom and Ireland, 64.7%) are above that proportion.

Similar considerations can also be made with regard to Continuing Professional Development (CPD), in relation to the last three years.

In this case differences between EU and Non EU Countries are more evident.

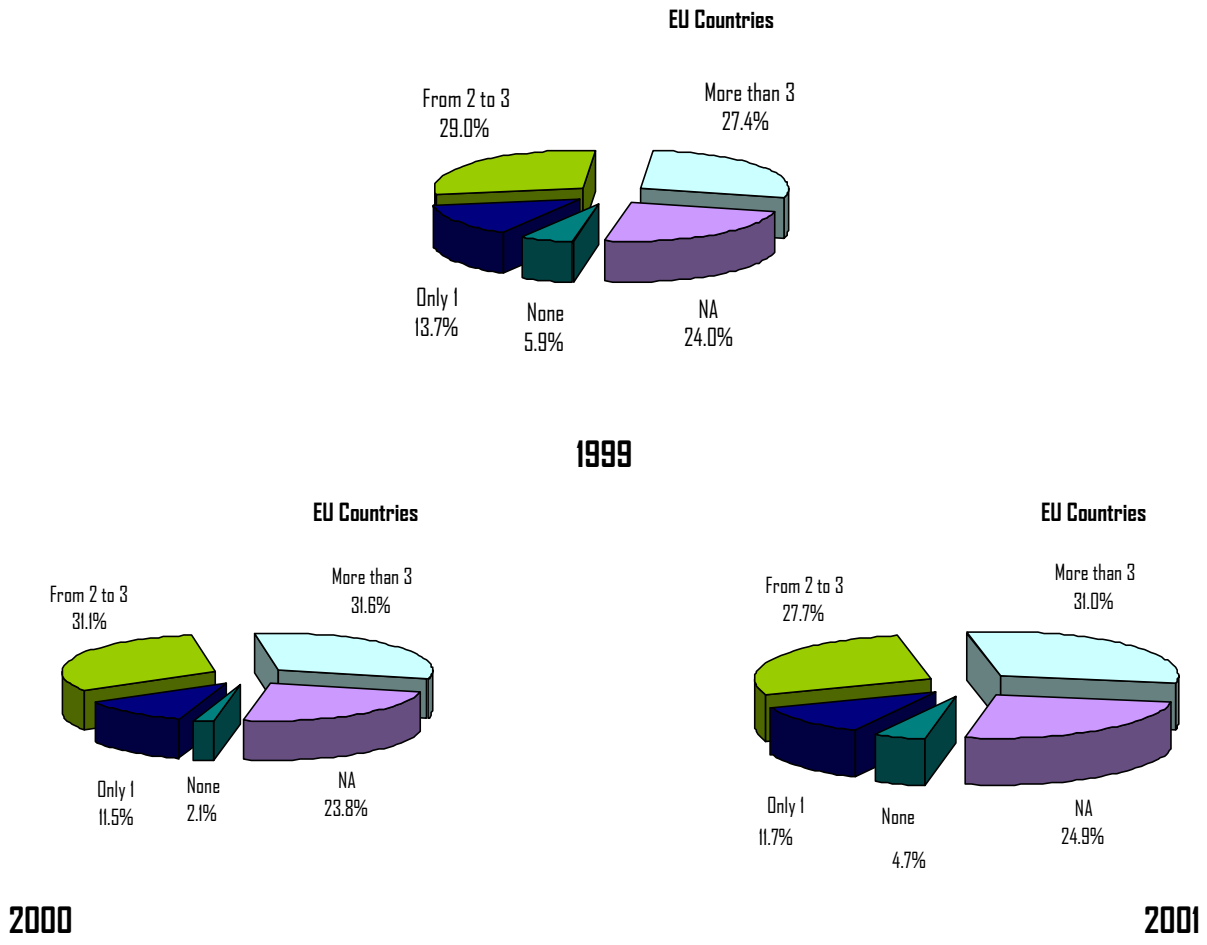
**Graph 2.7 – EU Countries: CPD During the 3 three years did you attend any refresher courses?**  
*Veterinarians Survey - Question 3*



Source: Nomisma VET2020 Survey



**Graph 2.7a - EU Countries: How many CPD courses did you attend in the last three years?**  
*Veterinarians Survey - Question 3a*



Source: Nomisma VET2020 Survey

**In the EU Countries, 76.7% of those questioned had undergone further training in the last three years. EU Responders had attended a higher number of courses in each of the last three years than responders belonging to Non EU countries.**

Considering the last three years, EU veterinarians generally took part in three or more courses, or between two and three courses. Of those participating in CPD, the proportion who participated in any courses in each of the last three years was high.

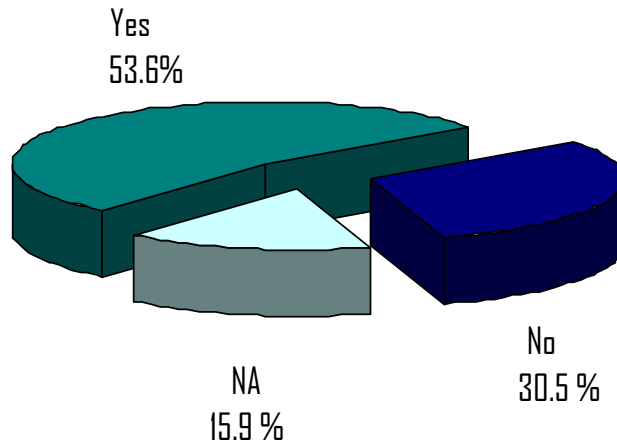
Graph 2.7 shows these results in detail.

In contrast to EU countries, only 53.6% of veterinarians in Non EU Countries took part in Continuing Professional Development. They also participated less in formal training activity.

**Graph 2.8 – Non EU Countries: During the last three years did you attend any refresher courses?**

*Veterinarians Survey - Question 3*

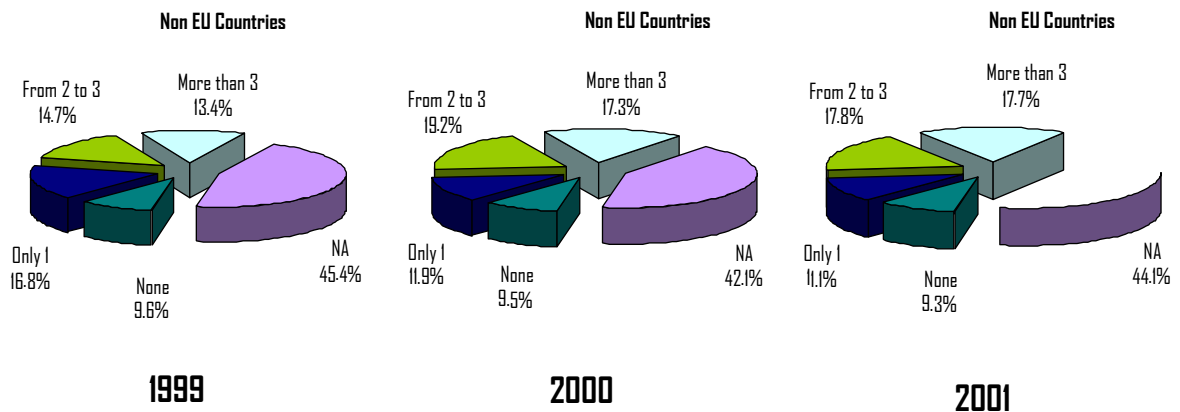
**Non EU Countries**



Source: Nomisma VET2020 Survey

**Graph 2.8a – Non EU Countries: How many CPD courses did you attend in the last three years?**

*Veterinarians Survey - Question 3a*



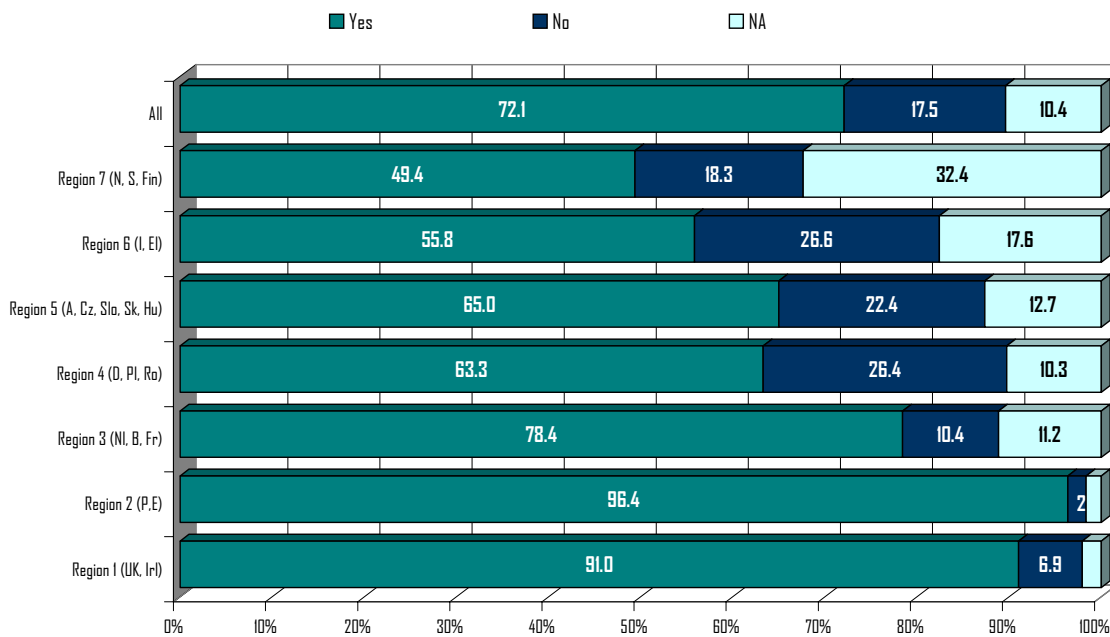
Source: Nomisma VET2020 Survey

The distribution of data by region shows differences with respect to the data collected for the all countries.

Region 3 (France, Belgium and Netherlands, 78.4%) and even more, Region 2 (Spain and Portugal, 96.4%) and Region 1 (Ireland and United Kingdom, 91.0%), demonstrate proportion markedly higher than the total value (All, 72.1%).

There was wide variation in uptake of GDP and refresher courses.

**Graph 2.9 – Regions: During the last three years did you attend any refresher courses?**  
*Veterinarians Survey - Question 3*



Source: Nomisma VET2020 Survey

In contrast, all the other regions show a lower proportion than the proportion of total value (All), particularly Finland, Norway, Sweden (Region 7, 49.4%) and Greece and Italy (Region 6, 55.8%).

The survey has allowed us to study the approach to professional work experienced by the respondents veterinarians.

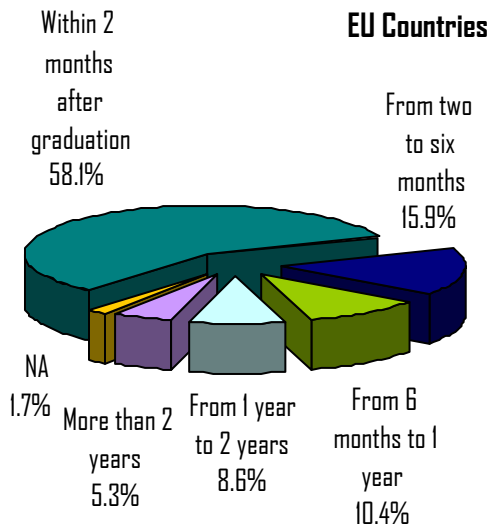
It was possible to identify the time necessary to find employment, the number of jobs undertaken in the early career years, the duration of such employment, and the geographical areas of the posts.

With regard to the European Union, Graph 2.10 illustrates the principal results of the study.

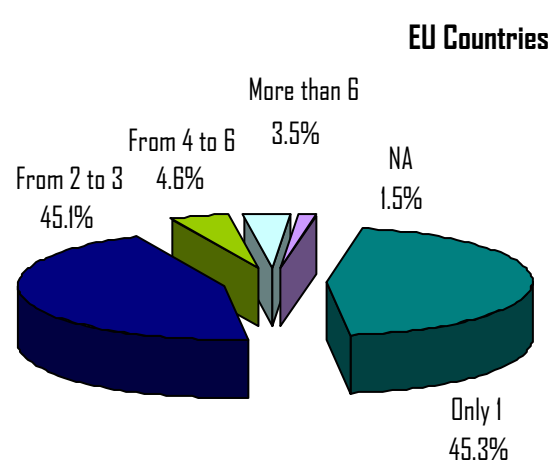
**58.1% of the veterinarians surveyed found their first job within the first two months after graduating and a further 26.3% within one year.**

The proportion of veterinarians who found employment after two years since graduation was very low (5.3%).

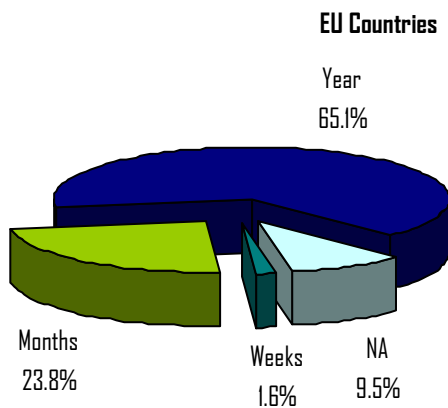
**Graph 2.10 – EU Countries: Employment Characteristics** *Veterinarians Survey - Question 4, 8, 9, 10*



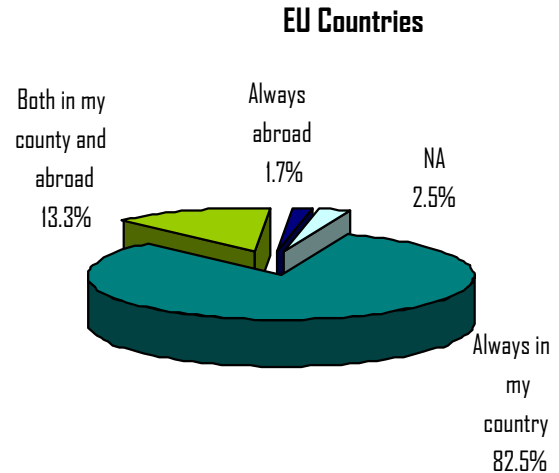
After having obtained your degree, how long did it take to find a steady job in veterinary sector?



In your first three working years, how many vet related jobs did you have?



In your first three working years, what was the average duration of your jobs ?



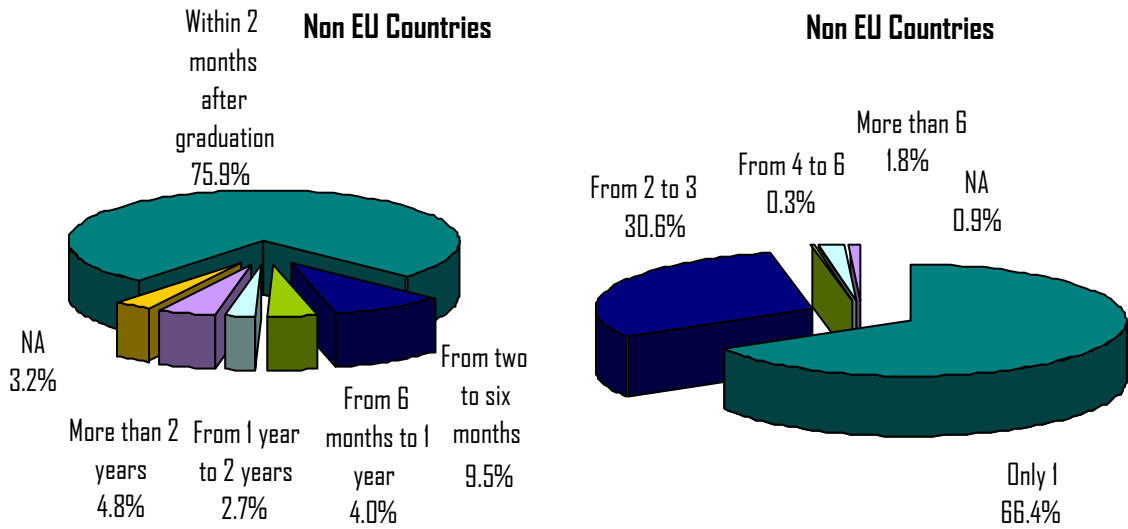
In which countries were the above mentioned jobs undertaken?

Source: Nomisma VET2020 Survey

More than 45% had only had one job during the first three years of their professional activity and a further 45% fell into the category of two to three jobs during the first three years. In addition to the speed of finding employment, stability of employment was evident as seen by the small number of jobs undertaken as well as the duration of such employment. 65.1% of respondents stated that their first job lasted more than a year. A final consideration regards the country in which the veterinarians carried out their first professional experience in the first three years after graduation. The survey highlights that in spite of the high proportion of veterinarians who have never employed outside their home countries, more than 15% of EU veterinarians had some type of professional experience abroad.

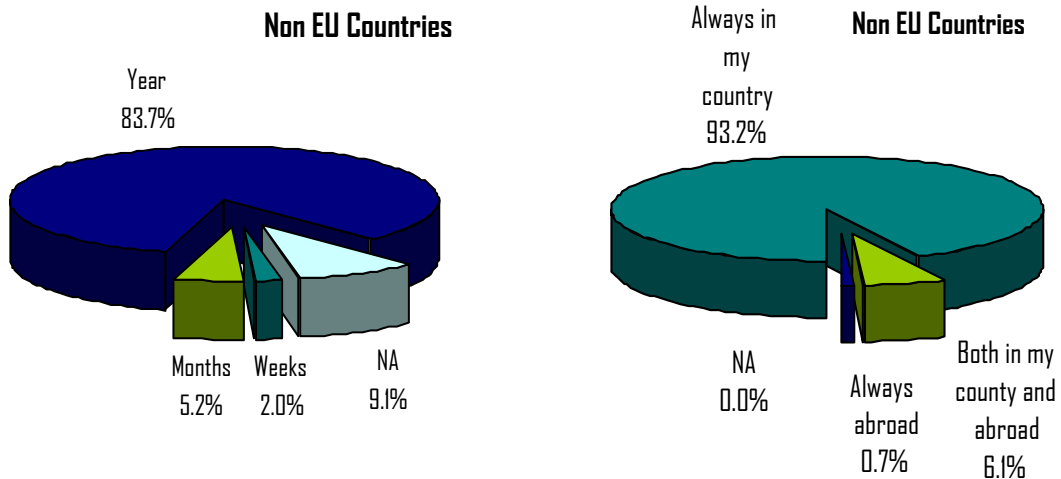
76% of the veterinarians in Non EU countries were able to find employment within two months of graduation and 66.4% held the same job over the course of the first three years of their professional life. This means that the veterinarians in these countries had jobs which lasted for more than a year during the early part of their careers. The proportion of veterinarians that had some professional experience abroad in their careers was lower than EU Countries.

**Graph 2.11 – Non EU Countries: Employment Characteristics**  
*Veterinarians Survey - Question 4, 8, 9, 10*



After having obtained your degree, how long did it take to find a steady job in veterinary sector?

In your first three working years, how many vet related jobs did you have?



In your first three working years, what was the average duration of your jobs?

In which countries were the above mentioned jobs undertaken?

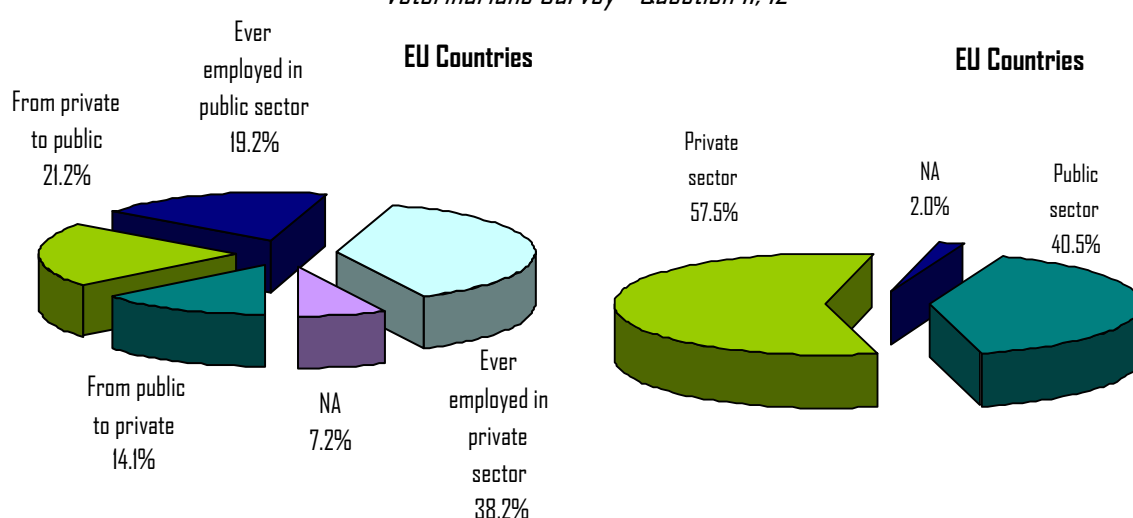
Source: Nomisma VET2020 Survey

Respondents offered useful indications for evaluation of future job prospects. It is also interesting to note to what degree the respondents worked in the public sector or the private sector.

Graph 2.12 illustrates that 57.9% of the veterinarians surveyed currently work in the private sector, and 38.2% have always worked in there.

In contrast, 40.5% of those surveyed were employed in the public sector, and of these, slightly less than 50% never changed.

**Graph 2.12 – EU Countries – Work Sector of Respondents**  
*Veterinarians Survey - Question 11, 12*



In changing jobs, did you move between the private and public sectors or vice versa?

In which sector are you employed?

Source: Nomisma VET2020 Survey

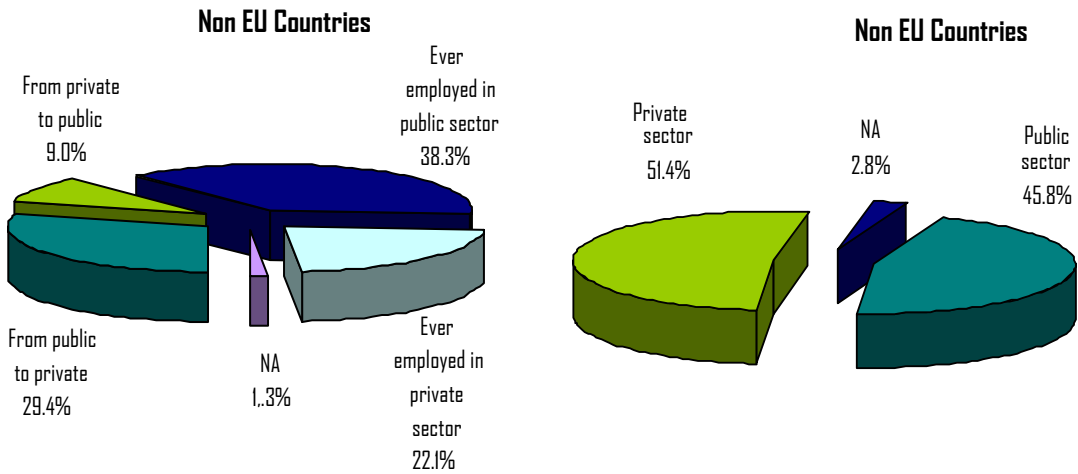
The situation in the Non EU Countries is different.

The survey shows that most veterinarians work in the public sector. In these countries, more than 45% of the veterinarians surveyed are currently working in the public sector.

Similarly, a low proportion (9%) moved from the private sector to the public sector. The proportion (29%) of those that moved from the public to the private sector was higher than those moving from private to public.

Graph 2.13 shows in detail the results with regard to work sectors of surveyed veterinarians from the Non EU Countries

**Graph 2.13 – Non EU Countries – Work Sector of Respondents**  
*Veterinarians Survey - Question 11, 12*



In changing jobs, did you move between the private and public sectors or vice versa ?

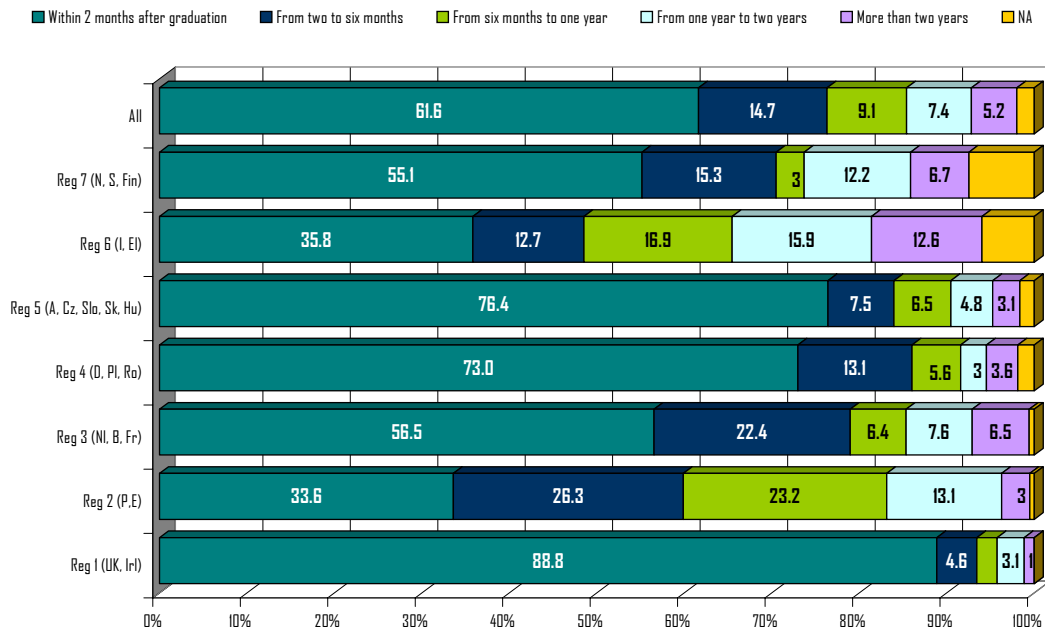
In which sector are you employed?

Source: Nomisma VET2020 Survey

Studying results at a regional level allows better understanding of the range of the employment. In the entire sample, 61.6% had found steady employment within two months of graduation, while findings in regions vary considerably.

**Graph 2.14 – Regions: After having obtained your degree, how long did it take to find a steady job in veterinary sector?**

*Veterinarians Survey - Question 4*



Source: Nomisma VET2020 Survey

Region 1 (United Kingdom and Ireland, 88.8%), Region 4 (Germany, Poland and Romania, 73%) and Region 5 (Netherlands, Belgium and France, 76.4%) present values higher than the proportion related to the responses of all 20 countries, which may indicate markets that are more efficient in finding employment for new graduates.

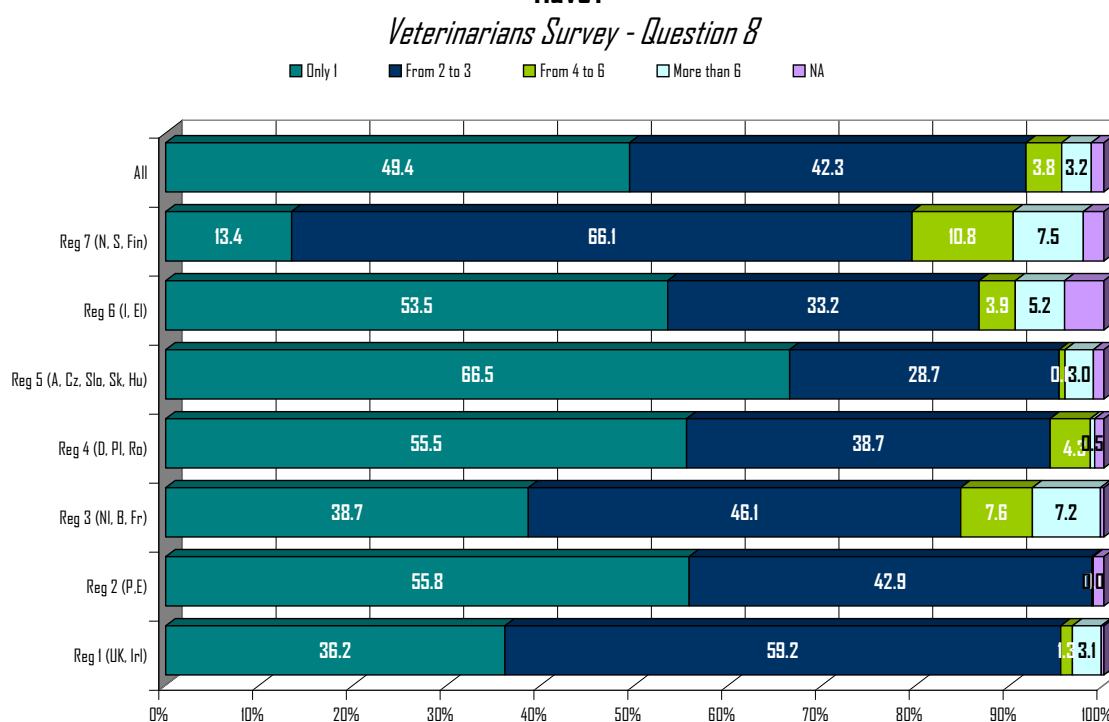
All the other regions are below the proportion related to the responses of all 20 countries.

In Region 2 (Portugal and Spain, 33.6%) and Region 6 (Greece and Italy, 35.8%) only slightly more than one-third of those surveyed found steady employment within two months of graduation.

Less variation is seen with regard to the number of jobs during the first three years of professional practice.

For most of the regions investigated, the largest proportion of respondents had only one job during the first three years of activity.

**Graph 2.15 – Regions: In Your First Three Working Years, How Many VET Related Jobs Did You Have?**



Source: Nomisma VET2020 Survey

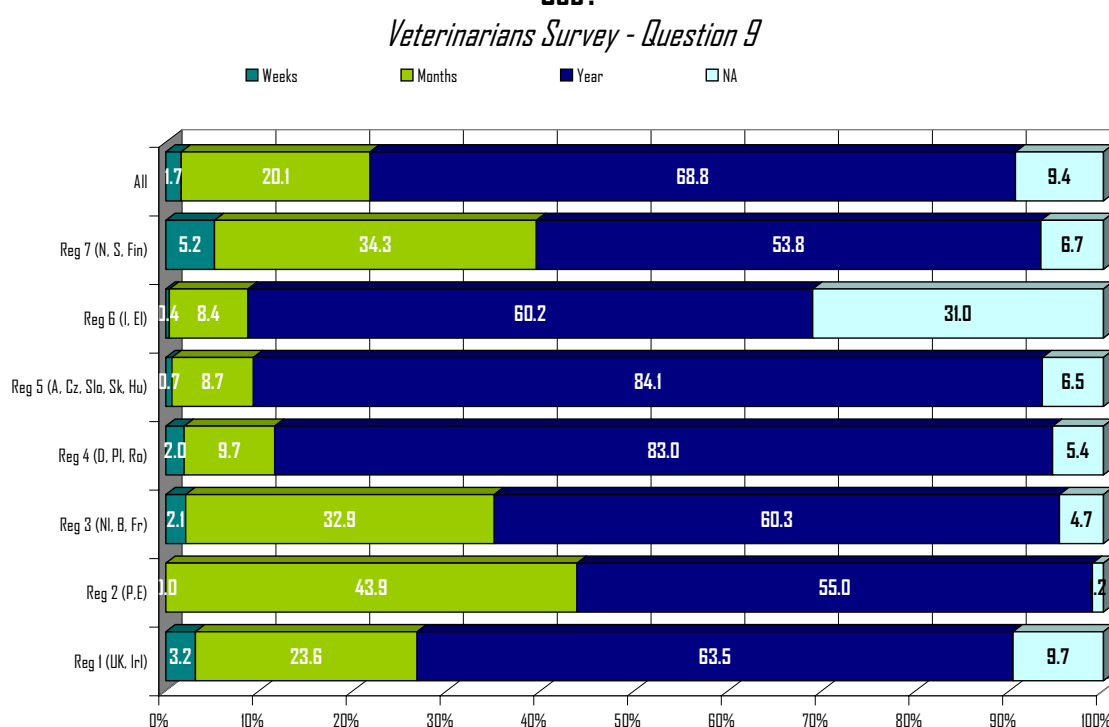
Region 1 (United Kingdom and Ireland, 36.2%), Region 3 (Netherlands, France and Belgium, 38.7%) and above all the Finland, Sweden and Norway (Region 7, 13.4%) are an exception to this where only a small proportion have had only one job in the first three years of professional activity.



Graph 2.16 illustrates the average length of employment of veterinarians during their first three years of work. The results show that employment duration of at least one year is most common for all the regions.

Regions 1 (United Kingdom and Ireland) and Region 3 (Netherlands, Belgium, France) show that jobs lasted generally only for months and this is even more evident in Regions 2 (Portugal and Spain) and Region 7 (Norway, Sweden, Finland).

**Graph 2.16 – Regions: In Your First Three Working Years, What Was Average Duration of Your Job?**

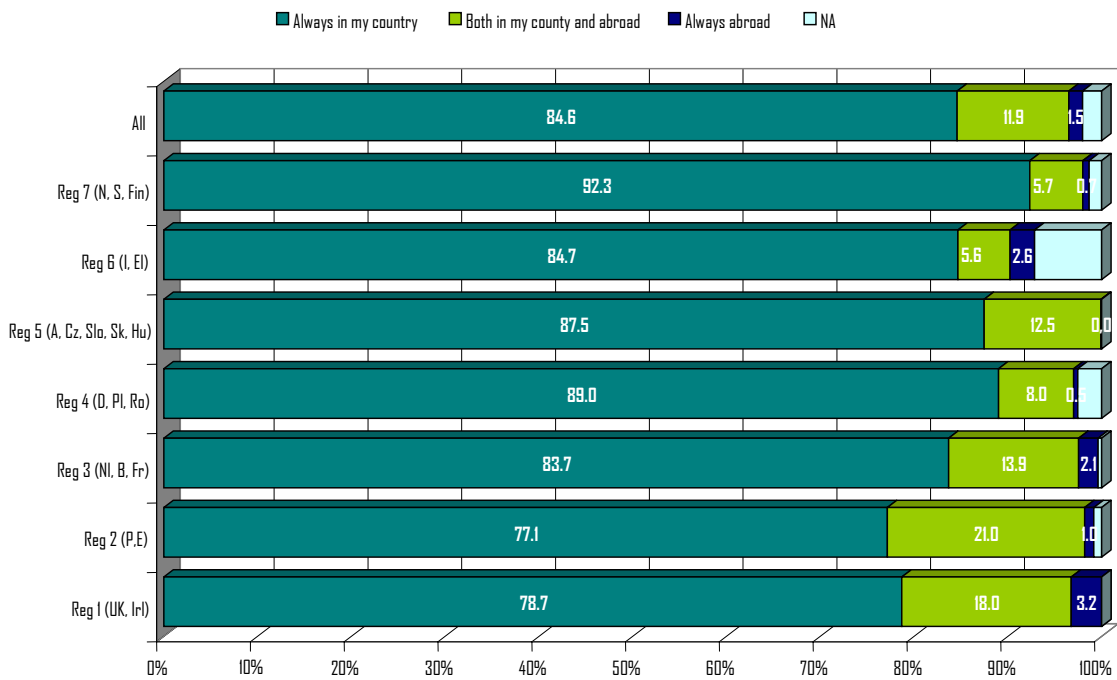


Source: Nomisma VET2020 Survey

With regard to professional experience carried out abroad, the responses shows less variation when referring to individual regions.

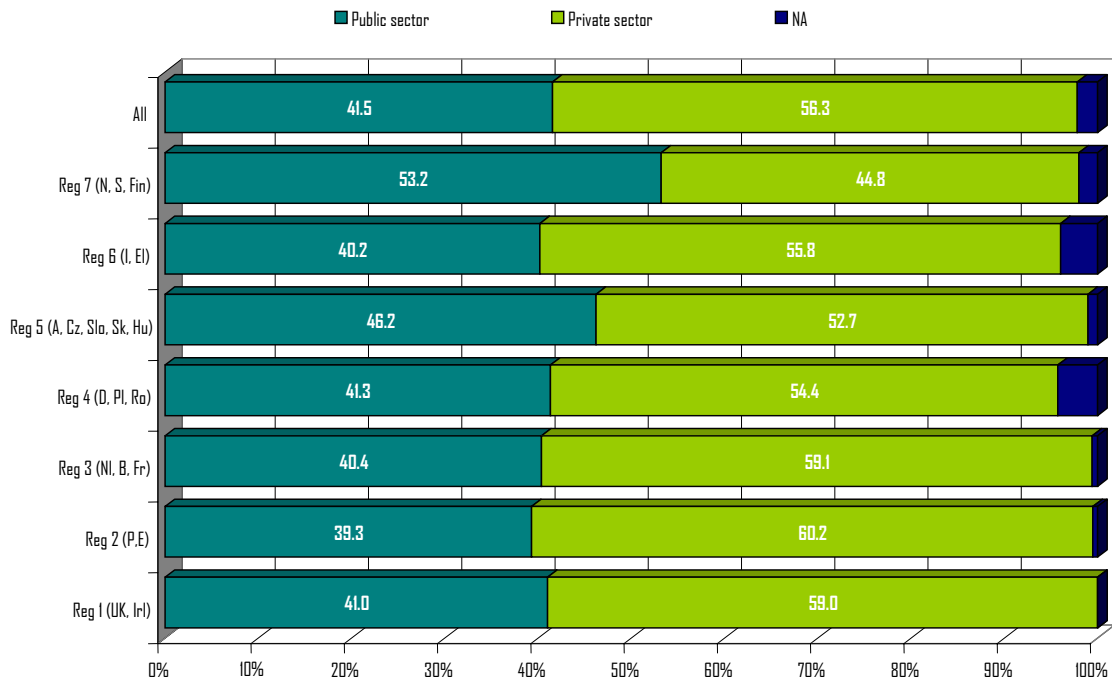
Regions 1 (United Kingdom and Ireland), Region 2 (Portugal and Spain) and Region 3 (Netherlands, Belgium and France) however demonstrate that a higher proportion of veterinarians had professional experience abroad in the first three years of their professional.

**Graph 2.17 – Regions: In Which Countries Were the Above Mentioned Jobs Undertaken?**  
*Veterinarians Survey - Question 10*



Source: Nomisma VET2020 Survey

**Graph 2.18 – Regions: In Which Sector Are You Employed?**  
*Veterinarians Survey - Question 12*



Source: Nomisma VET2020 Survey

With regard to employment and career paths that have led to the current situation, Graphs 2.18 and 2.19 illustrate the situation at a regional level.

In all regions, the highest proportion of veterinarians interviewed are employed in the private sector. With the exceptions of Region 7 (Finland, Norway and Sweden, 53.2%) and Region 5 (Austria, Czech Republic, Hungary, Slovak Republic and Slovenia, 46.2%), which have higher values, the remainder of European regions show a proportion of veterinarians currently working in the public sector is approximately 40%.

Career paths that have led to the current situation appear somewhat different.

In Region 1 (United Kingdom and Ireland), Region 2 (Portugal and Spain), Region 3 (Netherlands, France and Belgium) and Region 7 (Sweden, Norway, Finland), the number of veterinarians that have passed from the private sector to the public sector is higher to those passing from the public to the private sector.

In the other regions, the proportion of veterinarians is higher than those who moved to the private sector having first worked in the public sector.

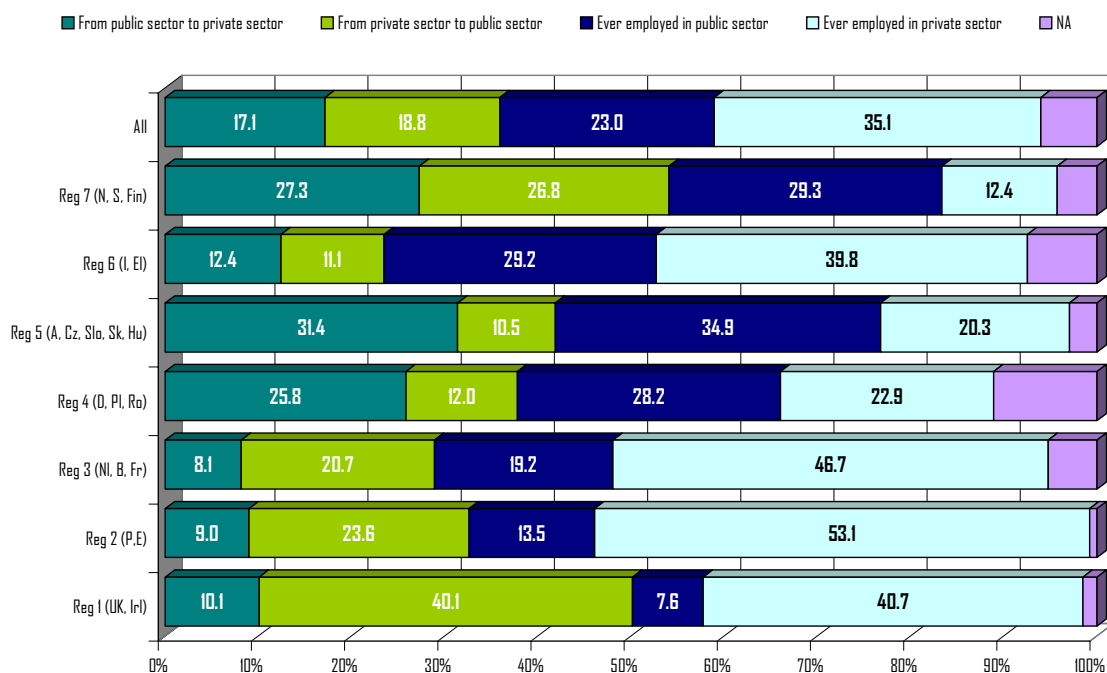
In Region 6 (Greece and Italy) the proportions of those that moved from the private to the public sector (11.1%) and vice versa (12.4%) are quite low.

The propensity to remain in the same sector can also be seen, although to a lesser extent, in the veterinarians of Region 3 (France, Belgium and Netherlands)

Graph 2.19 illustrates these results in detail.

**Graph 2.19 – Regions: In Changing Jobs, Did You Move Between the Private and Public Sectors or Vice Versa?**

*Veterinarians Survey - Question 11*



Source: Nomisma VET2020 Survey

## 2.3 Strengths and Weaknesses of the Veterinary Education and the Veterinary Profession

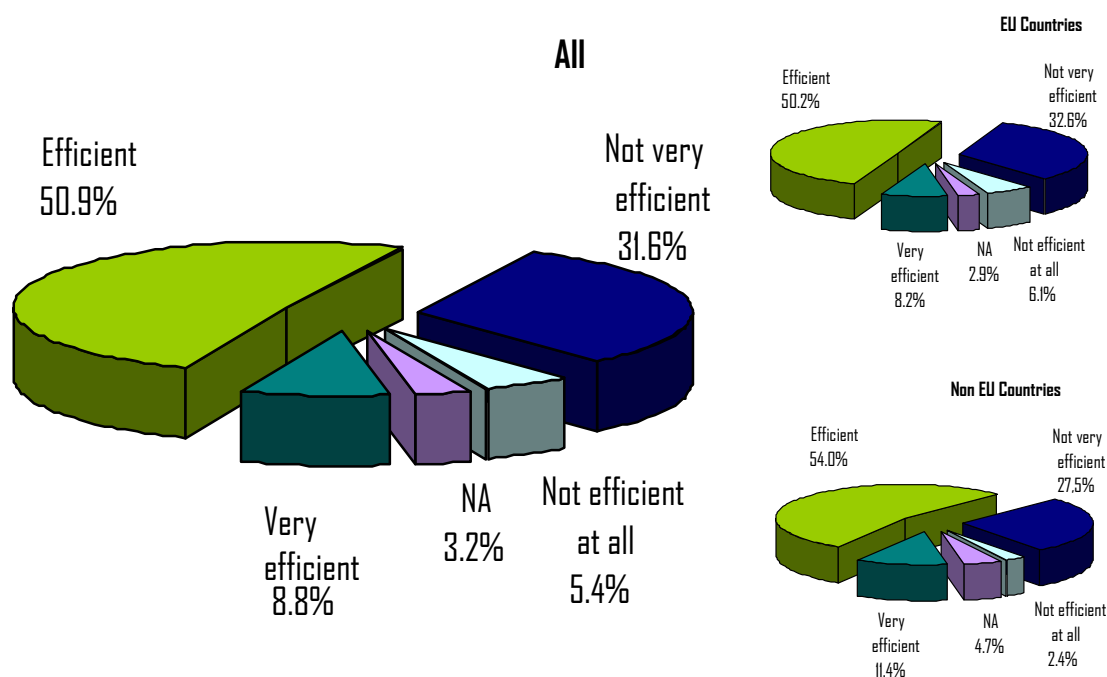
After describing the characteristics of the veterinarians in the survey and after having taken a closer look at their professional experience, it seems opportune to now report on the opinions expressed by the veterinarians with regard to strong and weak points in veterinary education and the profession itself.

It was deemed important to evaluate perceptions of the efficiency of the current university system.

**The results obtained indicate a clear cut prevalence of positive evaluations and a high level of efficiency.**

**Graph 2.20 – What is Your evaluation of the efficiency of the veterinary training offered by the current university system in your country?**

*Veterinarians Survey - Question 18*



Source: Nomisma VET2020 Survey

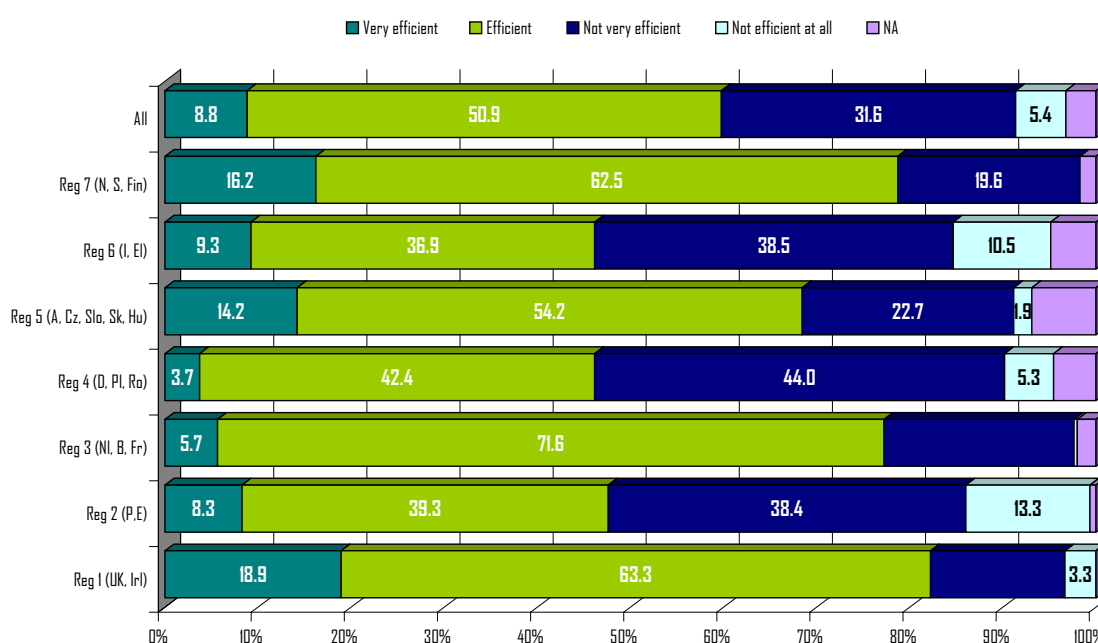
59.7% regarded the university system of veterinary education to be efficient or very efficient. This value is greater than 65% in Non EU Countries. 59% of the respondents in EU Countries has a perceptions of efficiency.

Differences appear in the analysis by region. In fact in some cases, the current university system is perceived better in respect to the evaluation given by the respondents of all the 20 countries involved. In particular, Region 1 (United Kingdom and Ireland) Region 3 (France, Belgium and Netherlands), Region 5 (Austria, Czech Republic, Slovenia, Slovak Republic and Hungary) and Region 7 (Finland, Norway and

Sweden) demonstrate higher efficiency evaluations, while in Region 2 (Portugal and Spain), Region 4 (Germany, Poland and Romania) and Region 6 (Greece and Italy), the proportion of respondents that gave a not efficient evaluation is superior to those who gave an efficient one. Furthermore, United Kingdom and Ireland (Region 1, 18.9%) and Finland, Sweden and Norway (Region 7, 16.2%) are distinguished by the highest evaluations, declaring that the university systems of their countries are "very efficient".

### Graph 2.21 – What is Your evaluation of the efficiency of the veterinary training offered by the current university system in your country?

*Veterinarians Survey - Question 18*



Source: Nomisma VET2020 Survey

Tables 2.4 e 2.5 permit a further evaluation, showing strong and weak points of the current university system.

**Table 2.4 - In your opinion, which are the strengths of the current university system in your country?**

*Veterinarians Survey - Question 18a*

Countries	EU	EU	Non EU	Non EU	All - 1st	All - Multiple*
	Countries - 1st %	Countries - Multiple* %	Countries - 1st %	Countries - Multiple* %		
good basic education	53.0	60.1	29.2	35.9	48.3	55.3
highly qualified teachers and staff	12.3	19.4	28.2	32.9	15.5	22.1
good practical training	10.4	27.9	11.8	28.7	10.7	28.0
moderne equipment-structure of the Faculty	4.7	8.5	2.9	11.9	4.4	9.1
small number of students	3.4	4.2	5.4	7.2	3.8	4.8
all veterinary fields are covered	2.6	7.8	4.0	6.1	2.9	7.4
students selection	3.0	4.3	0.3	0.3	2.4	3.5
specialized in some particular veterinary fields	2.8	5.4	3.5	6.4	3.0	5.6
long education time	0.8	2.1	0.0	0.8	0.6	1.8
cooperation with other universities	0.0	0.9	2.5	3.9	0.5	1.5
other	7.0	23.2	12.2	25.8	8.0	23.7
<b>Tot</b>	<b>100.0</b>		<b>100.0</b>		<b>100.0</b>	

Source: Nomisma VET2020 Survey

\* Multiple answers refer to the sum of responses given by respondents and indicate the proportion of respondents that gave a specific answer, independently of the order of priority. With reference to the above table for example, 60.1% of veterinarians in countries of the European Union, that consider the university systems in their respective countries to be very efficient, indicated a "good basic education" as a strong point of the system. This factor is indicated as the most important strong point by 53% (1<sup>st</sup> choice). In all of the following tables marked with an asterisk (\*), multiple answers have been analyzed. The tables must be interpreted taking this into consideration.

Of the all the respondents who perceived their institutions to be highly efficient, the most important points in the European university system was that of a "good basic education" guaranteed to students (48% as the first choice and 55% overall). Further elements of efficiency which were well appreciated are "highly qualified teachers" (15.5% and 22.1% respectively) and "good practical training staff" (10.7% and 28%).

When comparisons are made between EU and Non EU Countries, no real differences emerge, with the exception of the importance that Non EU Countries veterinarians assign to the "qualification of teachers and staff". Also, the method for "student selection" appears to be more important for EU countries.

With regard to weak points, the responses seem to be concentrated on a limited number of factors. The lack of clinical experience is considered by far as the most important weak point (30.2% and 50.6%) at a group level and this is even more pronounced in the Non EU Countries (54.5% and 67.9%). Excessive numbers of students (17.6% and 21.6%) and the lack of coherence in educational programs to meet market demands (15.8% and 26.1%) appear to be quite problematic, particularly in countries of the European Union.

**Table 2.5 - In your opinion, why is the current university system so inefficient?**  
*Veterinarians Survey - Question 18b*

Countries	EU	EU	Non EU	Non EU	All - 1st	All - Multiple*
	Countries - 1st %	Countries - Multiple* %	Countries - 1st %	Countries - Multiple* %		
lack of clinical work/practice	24.2	46.3	54.5	67.9	30.2	50.6
too many students	17.6	21.6	1.7	1.6	14.5	17.7
education is far from the market needs	15.8	26.1	3.1	8.9	13.3	22.7
poor professionalism of teachers	10.0	19.6	16.0	11.7	11.2	18.0
lack of funds by government for research	4.2	6.3	4.7	6.0	4.3	6.2
too much specialisation	4.7	5.8	0.0	2.5	3.7	5.2
too many academics	4.2	4.4	0.0	0.0	3.4	3.5
lack of specialisation	2.6	7.3	5.0	6.4	3.0	7.1
not enough flexibility	3.0	3.4	1.7	2.1	2.7	3.1
lack of knowledge in other areas e.g.(marketing, economics etc)	1.6	4.8	1.7	5.2	1.6	4.9
old equipment	0.8	5.5	0.0	26.0	0.7	9.6
too many VET faculties	0.0	2.3	0.0	0.0	0.0	1.9
other	11.3	16.6	11.8	21.0	11.4	17.5
<b>Tot</b>	<b>100.0</b>		<b>100.0</b>		<b>100.0</b>	

Source: Nomisma VET2020 Survey

Common to both groups is the perception of a poor professionalism of teachers in the teaching staff.

The shared opinions on weak and strong points permits a better understanding of information relative to modality and tools for improving the educational training offered by veterinary faculties in the European university system (table 2.6).

By far, the most important factor cited (22% of first choices and 39% overall) was a deeper practical and clinical experience. This was even more strongly suggested by veterinarians from the Non EU Countries.

Following this, in descending order of importance are a limited number of students (above all in EU countries), more availability of funds (Non EU Countries), teaching motivation by professors and more cooperation with the private sector (EU countries).

In addition to adjustments in the European university system, it was further requested to develop the tools necessary to guarantee to the students a level of competence capable of meeting the challenges and demands of the next twenty years.

**Table 2.6 - How Could the Current Veterinary Schools in Your Country Be Improved?**  
*Veterinarians Survey - Question 19*

Countries	EU	EU	Non EU	Non EU	Total - 1st	Total - Multiple*
	Countries - 1st	Countries - Multiple*	Countries - 1st	Countries - Multiple*		
	%	%	%	%	%	%
deeper practical and clinical experience	20.1	35.4	31.7	52.2	22.4	38.7
less students	12.1	15.5	6.6	11.3	11.0	14.7
more funds for education & research	5.2	7.4	9.7	13.9	6.1	8.7
well motivated teachers	6.6	14.0	1.7	4.1	5.6	12.1
cooperation between university & industry	6.2	15.6	1.7	3.8	5.3	13.2
review of the post-graduate education system	5.8	11.2	2.3	7.0	5.1	10.4
improving the working conditions of the teachers	5.6	12.6	1.3	4.3	4.8	11.0
a new curriculum/different study plan	4.4	12.3	3.0	5.0	4.1	10.9
competence in other areas e.g.(marketing, economy, etc)	3.5	7.9	1.6	10.8	3.2	8.5
more cooperation with other faculties	2.6	5.2	2.7	9.9	2.6	6.2
more attention to market needs	2.2	6.2	1.6	3.6	2.1	5.7
longer/broader basic education	2.2	3.1	0.0	0.2	1.8	2.5
modern equipment & infrastructure	1.3	7.3	3.1	15.4	1.6	8.9
less vet faculties	1.6	6.4	0.4	0.5	1.4	5.2
introducing a new teaching method	1.1	3.6	1.9	7.3	1.3	4.3
other	8.9	25.3	9.6	21.4	9.0	24.6
NA	10.6		21.0		12.6	
<b>Total</b>	<b>100.0</b>		<b>100.0</b>		<b>100.0</b>	

Source: Nomisma VET2020 Survey

Graph 2.22 sums up the main information emerging from the opinions expressed by the veterinarians in this study. Interpreting the importance of factors must take into consideration that the values reported in the graph represent the average value of each heading, calculated in respect to all the opinions expressed (with values ranging from 1-10) by the respondents.

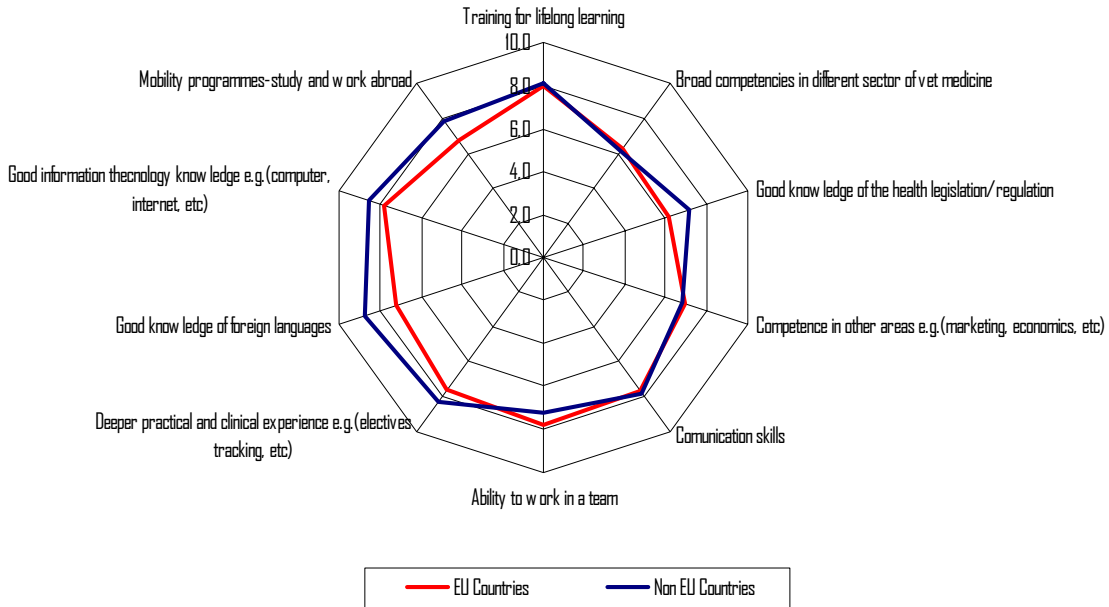
With regard to all the twenty countries under study, the information referring to the specific professional expertise of the veterinarian concerns once again training for lifelong learning (with an average evaluation of 8 points), good information technology knowledge (7.9) and deeper practical and clinical experience (7.8).

With regard to the EU Countries, it was confirmed that the most important factor was training for lifelong learning (8.0), followed by the ability to work in a team (7.8) and good information technology knowledge (7.8).

Appearing equally important, especially for the Non EU Countries, is competence in some other areas, not necessarily in a veterinary environment, for example, foreign languages (8.7) and a knowledge of new technology (8.6). More importance should also be given to international exchange programs and a better knowledge of legislation. (7.8).



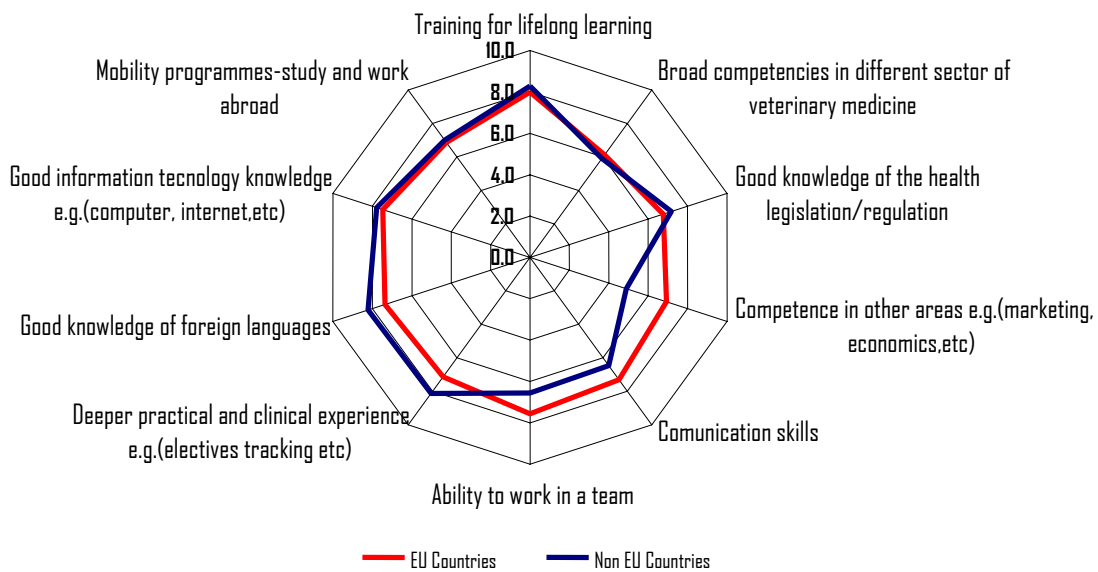
**Graph 2.22 – Which of the items below should be further developed during undergraduates veterinary training in order to face the new challenges emerging from the national and international context?**  
*Veterinarians Survey - Question 22*



Source: Nomisma VET2020 Survey

Graph 2.23 shows the opinions that emerged in this regard from the survey of Employers.

**Graph 2.23 – Which of the items below should be further developed during undergraduates veterinary training in order to face the new challenges emerging from the national and international context?**  
*Employers Survey - Question 5*



Source: Nomisma VET2020 Survey

With reference to the twenty countries under investigation, the factors thought to be most important are shared by the Employers, and in order are the following: training for lifelong learning (8.0), followed by the necessity of adequate knowledge of both foreign languages and new technology (both 7.5). Less important, as also was the case in the vet survey, was broad competencies in different sectors of activities (6.1).

There are some differences at a geographical level. For both EU and Non EU Countries, the most important factor is training for lifelong learning, with values of 8.0 and 8.3 respectively. For the EU countries, in order of importance follow the ability to work in a team, and the knowledge of how to use a computer, the internet and other new technologies. (7.5) For the Non EU Countries, knowledge of a foreign language (8.2) and more extensive practical clinical experience (8.1).

The survey undertaken revealed the opinions of veterinarians with regard to the areas of university curricula to be developed or to better implement in university curriculum. Graphs 2.24 e 2.25 described the opinion of the respondents with regard to the present time as well as the scenario in 2020. In both cases, the first choices have been presented and thus the most important aspects of the curriculum.

The opinions expressed by the respondents are concentrated on a low number of items, both for the current situation and that regarding projection for 2020.

With regard to current evaluations, Herd Health, Pets/Companion Animals and Food Quality and Safety represent by far the areas most cited.

**The first two areas both received 23% of the first choices, while 51.9% of the respondents noted the importance of competence in Food Quality and Safety (multiple answer).**

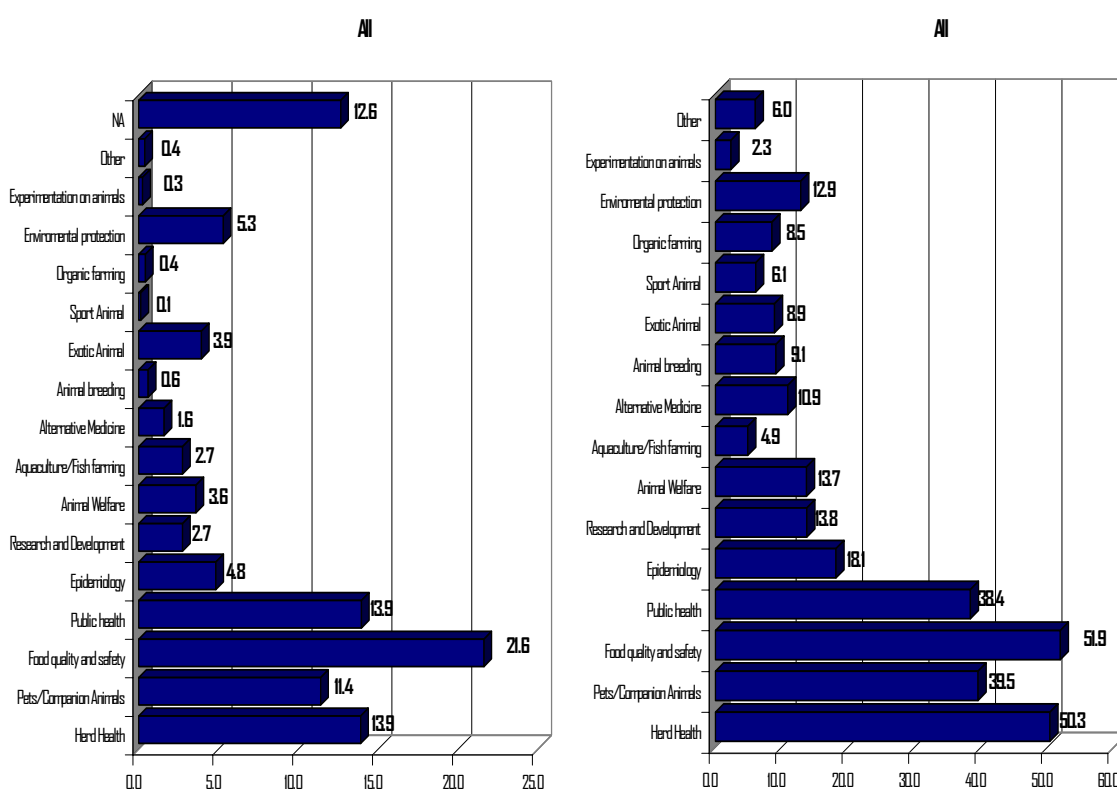
Considering the first choice responses, 21.6% of the veterinarians considered "Food Quality and Safety" the area of curriculum that need to be more fully developed, and it is also cited in the first three responses by 54.8%.

Following this in importance, and more in reference to the present time, is "Public Health<sup>5</sup>", that registered 13.9% of the first choice answers and 44.3% of the total number of responses.

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<sup>5</sup> 'Public Health' is the area of activity which involves, among the others 'Herd Health' and 'Food Quality and Safety'. So, the two above mentioned areas are to be considered as peculiar activities of the more general 'Public Health'.

**Graph 2.24 – Present: Considering the future requirements of the labour market , which are the areas that in your opinion should be developed or better implemented within the curricula for veterinary medicine?**  
*Veterinarians Survey - Question 20*



**Single Answer**

**Multiple Answers**

Source: Nomisma VET2020 Survey

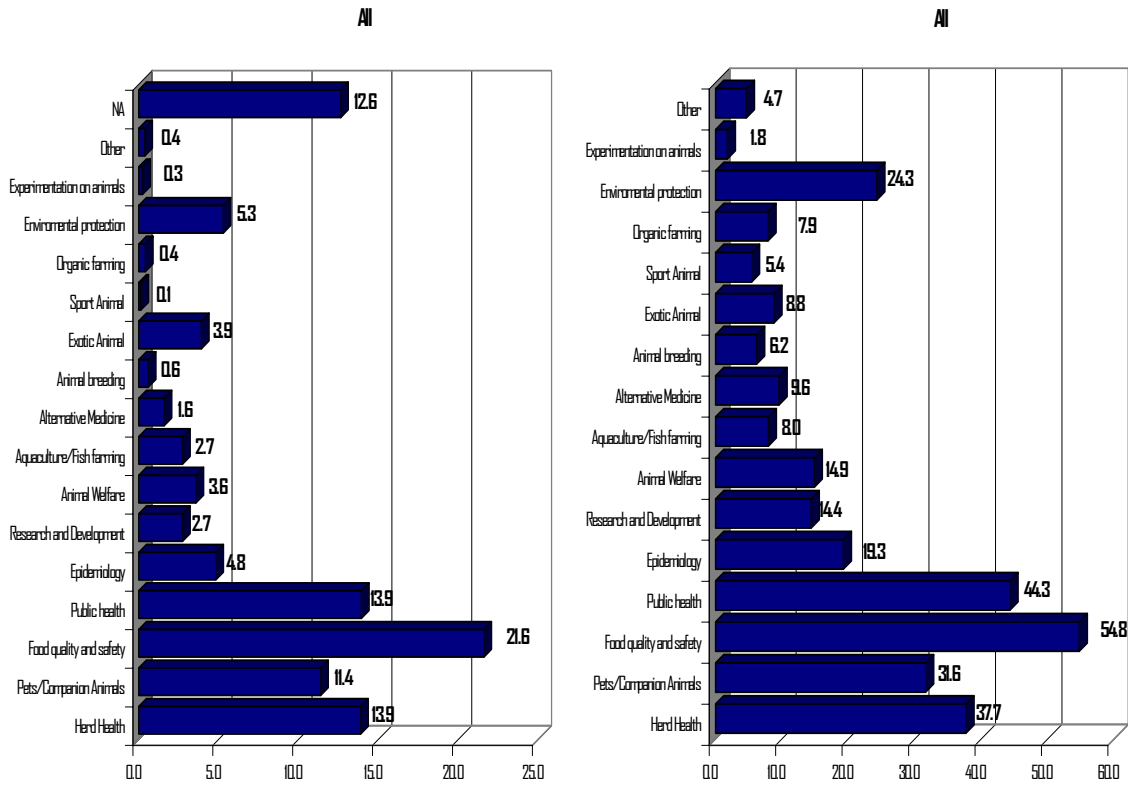
Concerning prospects in the veterinary profession for the next twenty years, the necessity to improve competence with regard to Herd Health and Pets/Companion Animals is shown (graph 2.25).

Considering the total number of responses, it appears that for the year 2020, it will also be necessary to develop competence regarding themes of Environmental Protection which does not register the same importance currently.

Finally more than 10% of the total responses referred to the areas of Epidemiology, Research and Development and Animal Welfare.

**Graph 2.25 – 2020: Considering the future requirements of the labour market , which are the areas that in your opinion should be developed or better implemented within the curricula for veterinary medicine?**

*Veterinarians Survey - Question 20*



**Single Answer**

**Multiple Answers**

Source: Nomisma VET2020 Survey

In this context, Table 2.7 allows us to appreciate the differences between the countries of the European Union and the Non EU Countries.

With regard to present training, the Non EU Countries seem to demonstrate a lesser need to develop competence in relation to Herd Health, paying more attention instead to Pets/Companion Animals, which represented the item most cited as a first response in this group.

With regard to projections for 2020 for the countries of the EU, there appears to be more need to improve competence in the areas of Food Quality, Safety and Epidemiology, while in the Non EU Countries, the areas of Pet/Companion Animals and Herd Health appear relatively more important.



**Table 2.7 – Considering the future requirements of the labour market , which are the areas that in your opinion should be developed or better implemented within the curricula for veterinary medicine?**

*Veterinarians Survey - Question 20*

Areas	Present						2020					
	Single Answer		All	Multiple Answer*			Single Answer		All	Multiple Answer*		
	EU	Non EU		EU	Non EU	All	EU	Non EU		EU	Non EU	All
	%	%	%	%	%	%	%	%	%	%	%	%
Herd Health	24.1	19.0	<b>23.1</b>	51.6	45.1	<b>50.3</b>	13.3	16.4	<b>13.9</b>	36.5	42.7	<b>37.7</b>
Pets/Companion Animals	2.4	25.7	<b>23.0</b>	38.1	45.5	<b>39.5</b>	9.8	17.9	<b>11.4</b>	30.1	37.9	<b>31.6</b>
Food quality and safety	18.3	24.1	<b>19.5</b>	52.3	50.4	<b>51.9</b>	20.5	26.0	<b>21.6</b>	56.1	49.3	<b>54.8</b>
Public health	9.3	7.7	<b>9.0</b>	38.6	37.4	<b>38.4</b>	14.9	9.9	<b>13.9</b>	47.3	32.3	<b>44.3</b>
Epidemiology	3.0	8.5	<b>4.1</b>	16.7	24.2	<b>18.1</b>	5.3	2.9	<b>4.8</b>	19.5	18.3	<b>19.3</b>
Research and Development	2.4	1.7	<b>2.2</b>	14.8	9.6	<b>13.8</b>	2.7	3.0	<b>2.7</b>	15.1	11.7	<b>14.4</b>
Animal Welfare	2.8	1.3	<b>2.5</b>	13.8	13.5	<b>13.7</b>	4.1	1.7	<b>3.6</b>	15.0	14.5	<b>14.9</b>
Aquaculture/Fish farming	1.2	2.7	<b>1.5</b>	4.5	6.3	<b>4.9</b>	2.7	2.8	<b>2.7</b>	7.8	8.4	<b>8.0</b>
Alternative Medicine	2.8	1.4	<b>2.5</b>	11.5	8.4	<b>10.9</b>	1.7	1.3	<b>1.6</b>	9.5	10.0	<b>9.6</b>
Animal breeding	1.5	1.4	<b>1.4</b>	7.9	14.1	<b>9.1</b>	0.3	1.7	<b>0.6</b>	5.9	7.6	<b>6.2</b>
Exotic Animal	2.1	0.0	<b>1.7</b>	9.9	4.7	<b>8.9</b>	4.8	0.3	<b>3.9</b>	9.1	7.5	<b>8.8</b>
Sport Animal	0.5	1.6	<b>0.7</b>	4.9	10.7	<b>6.1</b>	0.0	0.5	<b>0.1</b>	4.0	11.4	<b>5.4</b>
Organic farming	3.8	0.1	<b>3.0</b>	10.2	1.8	<b>8.5</b>	0.2	1.2	<b>0.4</b>	7.7	8.7	<b>7.9</b>
Environmental protection	1.5	0.2	<b>1.2</b>	12.4	14.7	<b>12.9</b>	5.4	4.8	<b>5.3</b>	24.1	25.2	<b>24.3</b>
Experimentation on animals	0.0	0.0	<b>0.0</b>	2.7	1.1	<b>2.3</b>	0.3	0.0	<b>0.3</b>	2.0	0.9	<b>1.8</b>
Other	0.9	0.8	<b>0.9</b>	6.3	5.0	<b>6.0</b>	0.3	0.7	<b>0.4</b>	5.1	3.1	<b>4.7</b>
NA	3.6	3.7	<b>3.7</b>	-	-	-	13.6	8.8	<b>12.6</b>	-	-	-
<b>Tot</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>				<b>100.0</b>	<b>100.0</b>	<b>100.0</b>			

Source: Nomisma VET2020 Survey

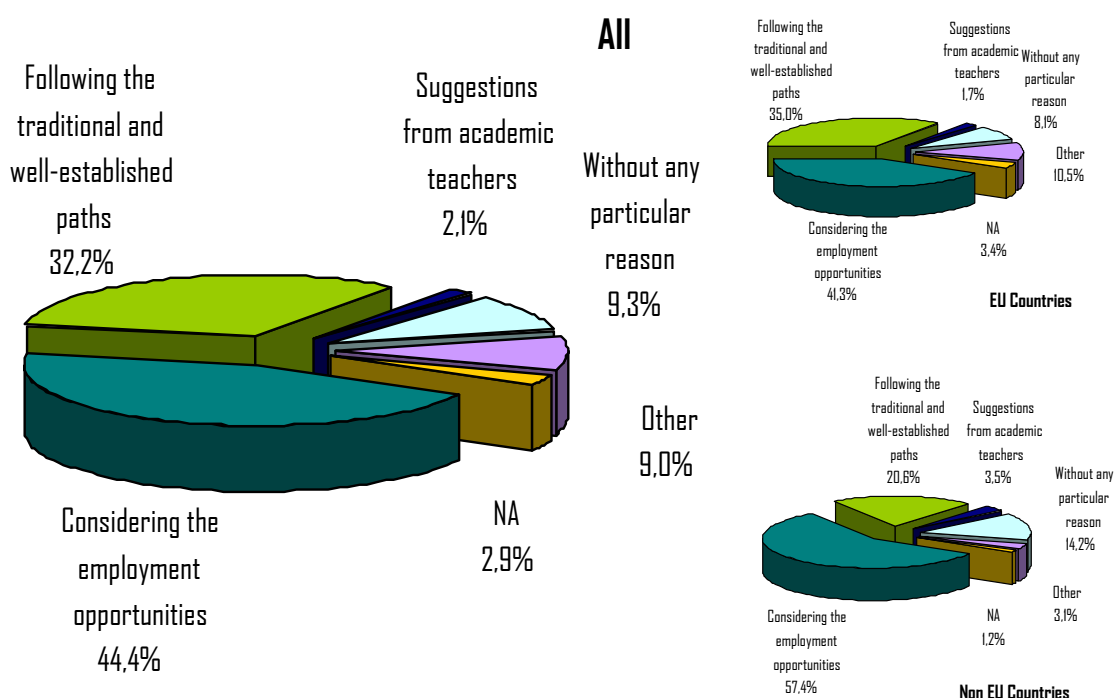
The survey has allowed to understand the criteria used by new veterinary graduates when choosing the main focus of their careers.

Graph 2.26 summarizes these opinions.

For 44%, the choice of a career in veterinary medicine takes into consideration the opportunities offered by the market place, and the possibility of finding work in such a field.

### Graph 2.26 – In your opinion, how do recent graduate choose the main focus of their veterinary activity?

*Veterinarians Survey - Question 21*



Source: Nomisma VET2020 Survey

However, 32.2% stated that the choice of the main focus of the veterinary activity was made following the traditional paths. It should be noted that almost 9% held that there was no particular motivation for the choice of the main focus of the veterinary career.

It appears that guidance counselling by university teachers played little role in selecting the focus.

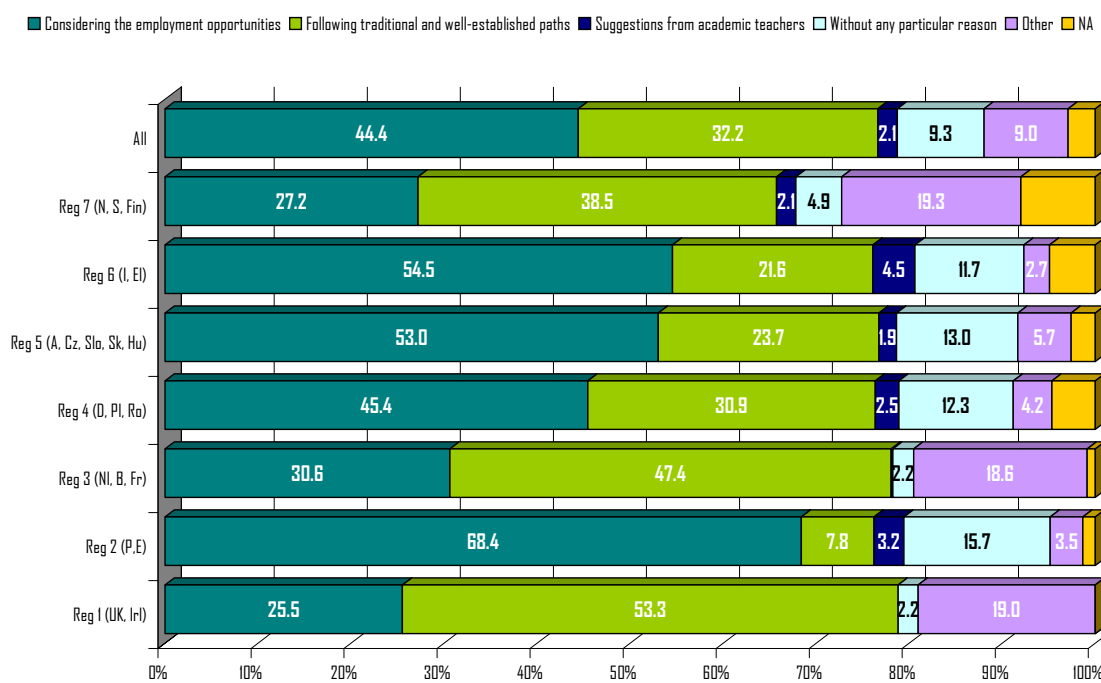
However, large differences emerge between the EU and Non EU Countries.

In the Non EU Countries, 57.4% of the recent graduated chose the focus of their activity as a result of market demand rather than following the traditional paths (20.6%).

These differences appear clearer when taking into consideration results for individual geographical areas as seen in Graph 2.27.

## Graph 2.27 – Regions: In your opinion, how do recent graduate choose the main focus of their veterinary activity?

### *Veterinarians Survey - Question 21*



Source: Nomisma VET2020 Survey

Consideration of the best opportunities for work appears to be of absolute importance in the Spain and Portugal (Region 2, 68.4%) but presents values above the total value also in Germany, Poland and Romania (Region 4, 45.4%) and Austria, Czech Republic, Hungary, Slovak Republic and Slovenia (Region 5, 53%) and in Greece and Italy (Region 6, 54.5%).

Conversely, the more traditional and consolidated focus on veterinary medicine appears to be the main criteria of choice for Ireland and United Kingdom (Region 1, 53.3%), France, Belgium and Netherlands (Region 3, 47.4%) and for the Finland, Norway and Sweden (Region 7, 38.5%).

In order to identify the strong and weak points, not only of the university system and student education, but also of the veterinary profession itself, it is also necessary to identify the perception and satisfaction level as expressed by the categories of people utilizing veterinary services

The opinions expressed by companies, associations and organizations were, therefore, sought.

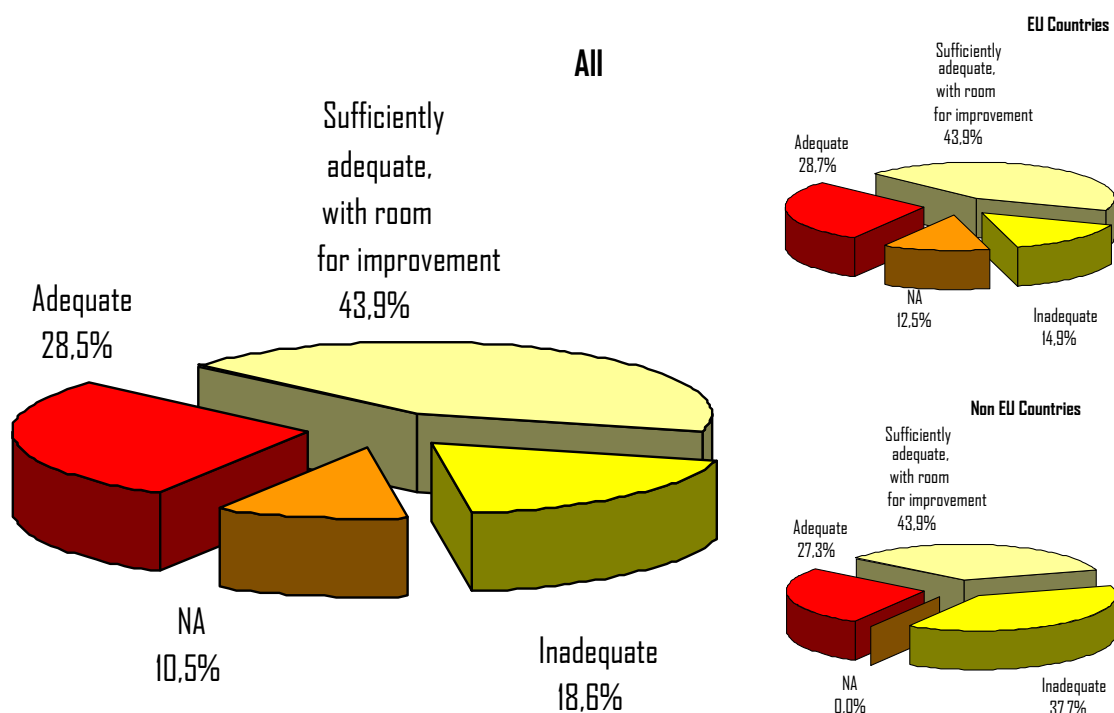
The investigation of those utilizing veterinary services (Employers and Consumer Organizations) has permitted us to understand the level of satisfaction in reference to such services offered.

Graphs 2.28 e 2.29 illustrate the level of satisfaction of Employers and Consumer Organizations, in reference to such services offered by veterinarians in the private sector.

Graph 2.30 illustrates the satisfaction level of consumer organizations in reference to services offered by veterinarians in the public sector.

The overall judgments appear to be substantially positive.

**Graph 2.28 – Are the professional services of private veterinarians used by the members of your organisation...:**  
*Employers Survey - Question 6*



Source: Nomisma VET2020 Survey

For Employers, the veterinary services utilized appear to be completely adequate (28.5%) or at least sufficient, even if 43.1% suggested that there is some room for improvement.

However it must not be disregarded that 18.6% stated that veterinary services were inadequate.

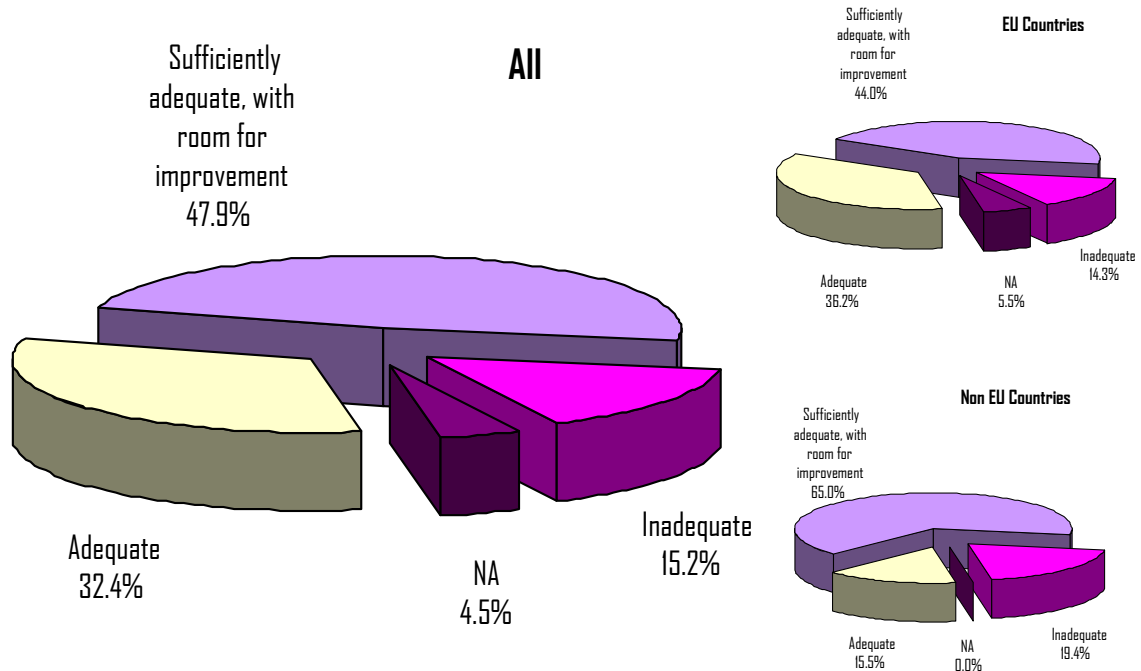
Positive evaluations appear to be relatively similar in both groups, EU and Non EU Countries, although in the Non EU Countries, the negative evaluations were decidedly higher (37.7%), with "not available" responses (NA) being completely absent.

Similar considerations regarding the opinions expressed by Consumer Organizations.

In this case, positive evaluations (adequate or sufficiently adequate services) exceed 80% both in relation to the total value of all twenty countries and for the two groups individually, EU Countries and Non EU Countries.



**Graph 2.29 – Is the Private veterinary services used by the members of your organisation...:**  
*Consumer Organizations Survey - Question 5*



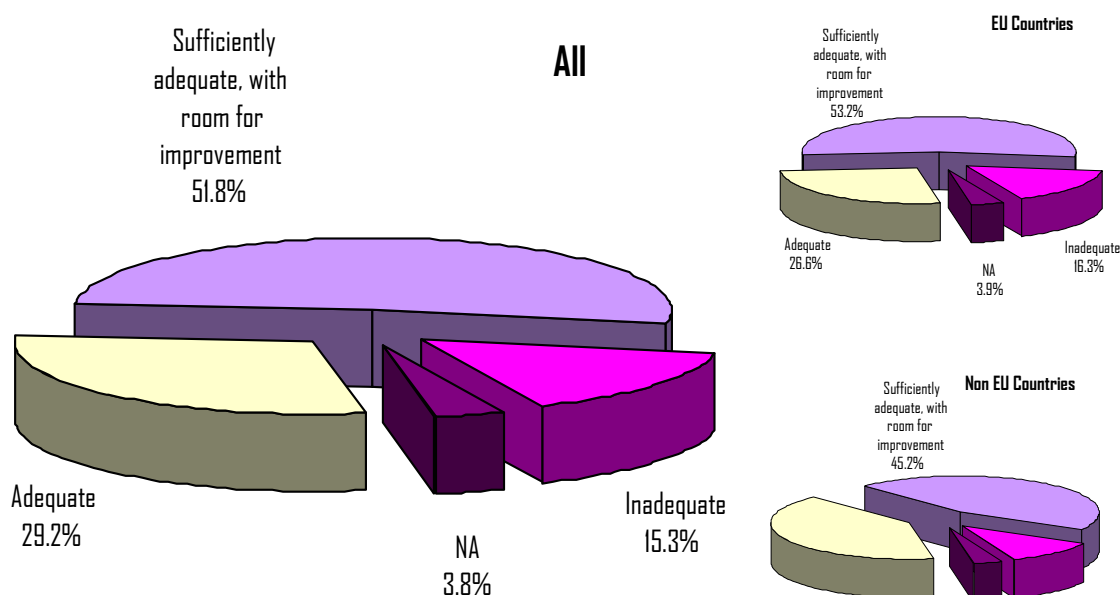
Source: Nomisma VET2020 Survey

In the Non EU Countries, the proportion of those declaring themselves completely satisfied with veterinary services is low (Adequate, 15.5%) with a higher proportion of those not satisfied by such services (Inadequate, 19.4%)

With regard to the public sector, the level of satisfaction is about 80% also in this category, while 15.3% stated that veterinary services were inadequate.

With regard to veterinary services in the private sector, higher levels of satisfaction are found in the Non EU Countries than in countries of the EU.

**Graph 2.30 – Is the Public veterinary services used by the members of your organisation...:**  
*Consumer Organizations Survey - Question 6*



Source: Nomisma VET2020 Survey

Tables 2.31 and 2.32 show the results related to how the quality of the public and private veterinary service could be improved.

**Table 2.31 – Consumer Organisations Survey: How could the quality of the public veterinary service, provided to your organisation, be improved?**  
*Consumer Organizations Survey - Question 7*

Countries	EU	EU	Non EU	Non EU	All - 1st	All - Multiple*
	Countries - 1st	Countries - Multiple*	Countries - 1st	Countries - Multiple*		
	%	%	%	%	%	%
more practice experience	6.5	15.2	10.6	21.1	7.3	16.3
more specialized knowledge	23.3	63.6	10.6	25.7	21.0	56.7
increasing the number of veterinarians	8.9	16.2	10.8	46.9	9.2	21.8
better cooperation	7.1	17.6	0.3	17.0	5.8	17.5
giving more information	2.2	11.6	3.6	25.4	2.5	14.1
better equipment	0.0	6.9	8.3	17.0	1.5	8.7
more prevention	0.9	14.8	3.6	14.6	1.4	14.8
other	29.0	76.4	7.8	36.6	25.1	69.2
NA	22.1		44.4		26.2	
<b>Tot</b>	<b>100.0</b>		<b>100.0</b>		<b>100.0</b>	

**Table 2.32 – Consumer Organisations Survey: How could the quality of the private veterinary service, provided to your organisation, be improved?**

*Consumer Organizations Survey - Question 8*

Countries	EU		Non EU		All - 1st %	All - Multiple* %
	Countries - 1st %	Countries - Multiple* %	Countries - 1st %	Countries - Multiple* %		
	more practice experience	3.7	7.6	10.9		
more specialized/updated knowledge	13.7	58.1	0.7	30.1	11.3	52.9
better cooperation	3.5	0.7	10.6	0.0	4.8	0.6
giving more information	3.8	9.6	6.7	12.7	4.3	10.1
better equipment	1.3	7.6	0.0	6.7	1.1	7.5
more prevention/controls	6.7	13.1	3.4	0.0	6.1	10.7
cheaper prices	3.8	18.7	10.9	3.8	5.1	16.0
other	26.9	5.6	28.9	13.1	27.2	7.0
NA	36.7		27.9		35.1	
<b>Tot</b>	<b>100.0</b>		<b>100.0</b>		<b>100.0</b>	

# Chapter 3

## PROSPECTS FOR THE VETERINARY PROFESSION

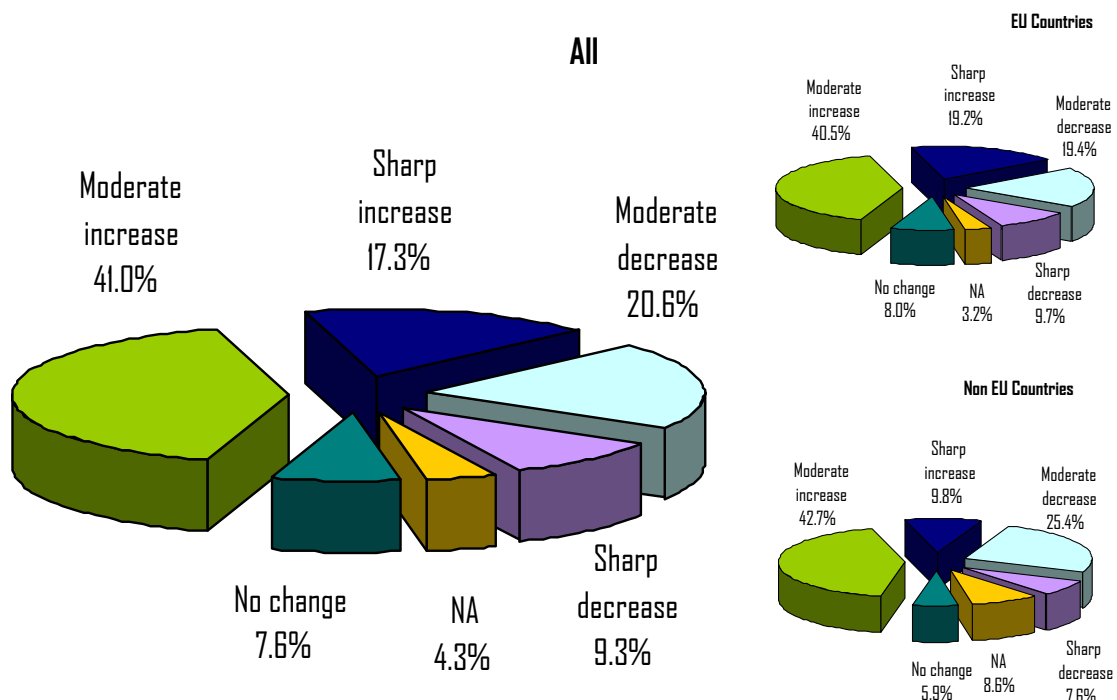
### 3.1 Forecasts of the Labour Market Demand For Veterinarians through 2020

Another important objective of the VET2020 Survey was to identify, according to the different categories of respondents, the opinion on the changes to be seen in 2020, in the number of veterinarians employed in the respective countries.

The survey enables to estimate the number of working veterinarians in 2020.

**Graph 3.1 - According to your estimate, what will be the change in the number of employed vets in 2020 in your country?**

*Veterinarians Survey - Question 23*



Source: Nomisma VET2020 Survey

The results appear to indicate an expected increase in the number of working veterinarians. More than 58% foresee a growth in the profession; more than 17% believe that this growth will be high.

Conversely, a little less than 30% of respondents believe that 2020 will see a decrease in veterinarians and only 9% believe that this decrease will be high.

The proportion of those who believe that there will be no substantial change in the number of working veterinarians in 2020 is quite low (7.6%).

No particular differences are seen between countries of the European Union and the Non EU Countries. However, in the Non EU Countries, the evaluations seem a little more pessimistic: 52.5% believe that there will be an increase in the number of veterinarians but the number of those not expressing an opinion (NA) is higher (8.8%), and 33% foresee a moderate decrease.

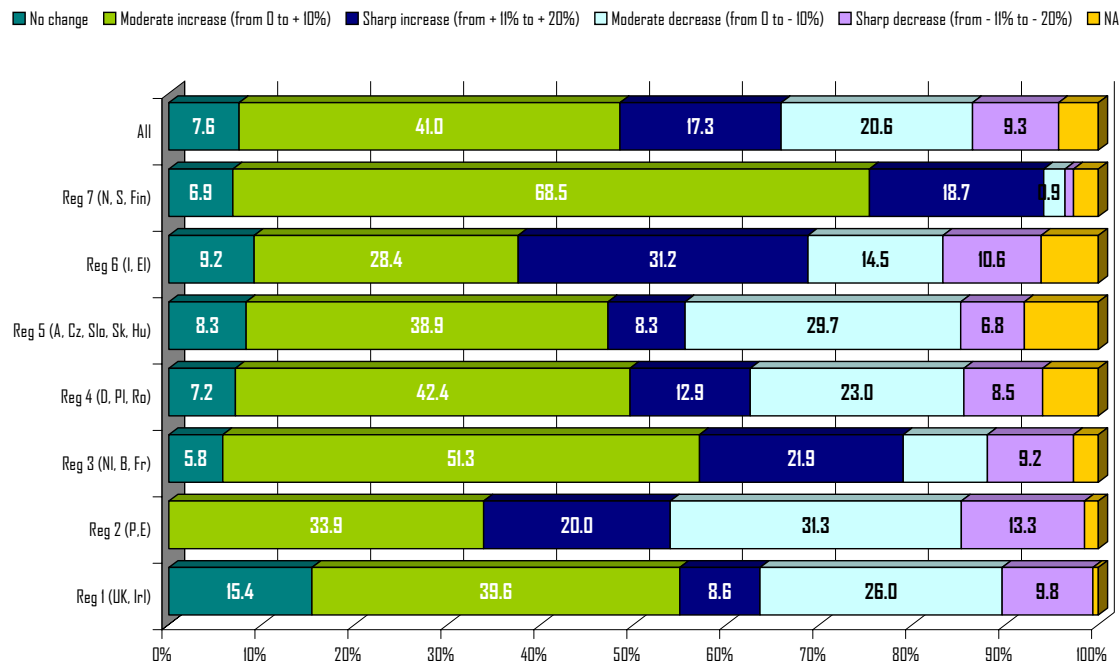
Finland, Sweden and Norway (Region 7) appear to be the most optimistic (87.2%) in terms of future growth of the profession: 18.7% predict a strong proportion of growth and 68.5% predict a moderate increase in employment opportunities in 2020.

On the opposite front we find Spain and Portugal (Region 2), where growth predictions (Moderate – 33.9%, Sharp 20%) are balanced by those who see a possible decrease (Moderate decrease – 31.3%, Sharp decrease - 13.3%)

Such circumstances can probably be related to the high number of veterinarians and veterinary students seen, above all, in Spain today as was demonstrated in the demographic analysis of the sector.

**Graph 3.2 – Regions: According to your estimate, what will be the change in the number of employed vets in 2020 in your country?**

*Veterinarians Survey - Question 23*



Source: Nomisma VET2020 Survey

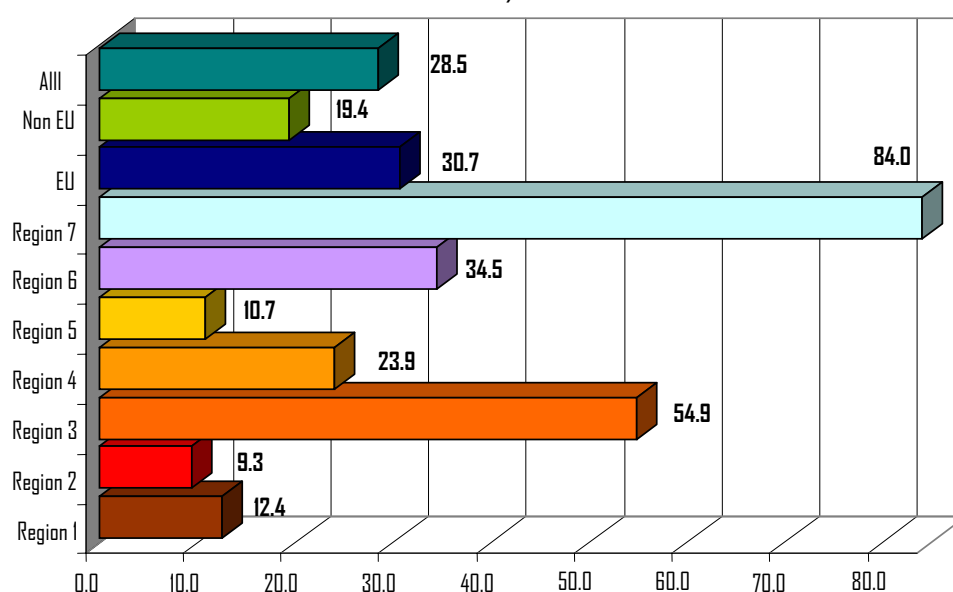
Ireland and United Kingdom (Region 1, 15.4%) registered the highest proportion of "No Change" responses and at the same time the lowest proportion of "sharp increase" responses (8.6%). Region 6

(Italy and Greece, 31.2%) expressed the highest proportion of those who foresee a sharp increase in the number of working veterinarians in 2020.

To summarize the opinions expressed by individual regions, Graph 3.3 proposes, for each region, a “Balance Value”, the value that represents the difference between those predicting an increase in the number of working veterinarians and those foreseeing a decrease, net of the proportion of respondents that expressed the opinion that the number of working veterinarians would remain stable.

**Graph 3.3 – Regions: The Estimated Change in the Number of Employed Veterinarians in 2020 in the Country of the Respondent: Balance Value**

*Veterinarians Survey - Question 23*



Source: Nomisma VET2020 Survey

It is possible to immediately note that for all the regions the balance value is positive. This signifies that the prevalent prediction of growth in the number of employed veterinarians is transversal and shared by all the Regions.

It is easy to verify how the results of the entire survey (Total) are strongly influenced not only by the Region 7 (Sweden, Norway and Finland), but also by Region 3 (France, Belgium and Netherlands) as well as countries of Region 2 (Spain and Portugal), all more important in numerical terms in relation to the number of veterinarians present.

All other areas appear to be under the total European value and in particular, the estimates of growth appear especially low in Region 2 (9.3% of balance value), in Region 1 (United Kingdom and Ireland, 12.4%) and Region 4 (Germany, Romania and Poland, 10.7%).

For further details, table 3.1 shows the results that occurred to the estimated change in the number of employed veterinarians in 2020 related to each country involved in the research.



**Table 3.1 – Country Analysis: According to your estimate, what will be the change in the number of employed vets in 2020 in your country?**  
*Veterinarians Survey - Question 23*

	A	B	Fin	Fr	D	El	IrI	I	NI	P	E	S	UK	EU Countr.	Cz	Hu	N	Pl	Ro	Sk	Slo	Non EU Countr.	All Countr.
	%	%	%	%	%	%	%	%	%	%	%	%	%		%	%	%	%	%	%	%	%	%
No change	5.1	3.7	9.5	7.3	9.1	0.0	9.8	11.9	2.3	0.0	0.0	9.3	16.0	<b>8.0</b>	13.8	5.7	2.5	6.0	1.5	9.5	5.5	<b>5.9</b>	<b>7.6</b>
Moderate increase (from 0 to +10%)	40.4	33.5	64.6	61.2	42.3	54.3	33.6	20.7	32.9	41.2	32.8	68.4	40.2	<b>40.5</b>	39.6	34.9	71.7	42.5	42.9	40.6	40.5	<b>42.7</b>	<b>41.0</b>
Sharp increase (from +11% to +20%)	24.6	23.7	22.5	24.6	13.1	43.2	1.6	27.6	8.9	34.1	18.0	13.3	9.4	<b>19.2</b>	9.7	0.0	20.8	23.2	0.0	2.1	2.9	<b>9.8</b>	<b>17.3</b>
Moderate decrease (from 0 to -10%)	19.1	25.6	1.3	4.9	22.9	2.5	35.6	18.1	5.7	6.7	34.9	5.6	25.0	<b>19.4</b>	29.4	44.4	0.0	12.4	36.0	22.8	32.7	<b>25.4</b>	<b>20.6</b>
Sharp decrease (from -11% to -20%)	6.2	6.3	0.0	0.0	8.4	0.0	13.2	13.7	50.2	6.2	14.3	0.0	9.4	<b>9.7</b>	0.0	12.4	2.5	8.0	9.3	5.4	15.9	<b>7.6</b>	<b>9.3</b>
NA	4.6	7.2	2.1	2.0	4.2	0.0	6.2	8.0	0.0	11.8	0.0	3.4	0.0	<b>3.2</b>	7.5	2.6	2.5	7.9	10.3	19.6	2.5	<b>8.6</b>	<b>4.3</b>
<b>Tot</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

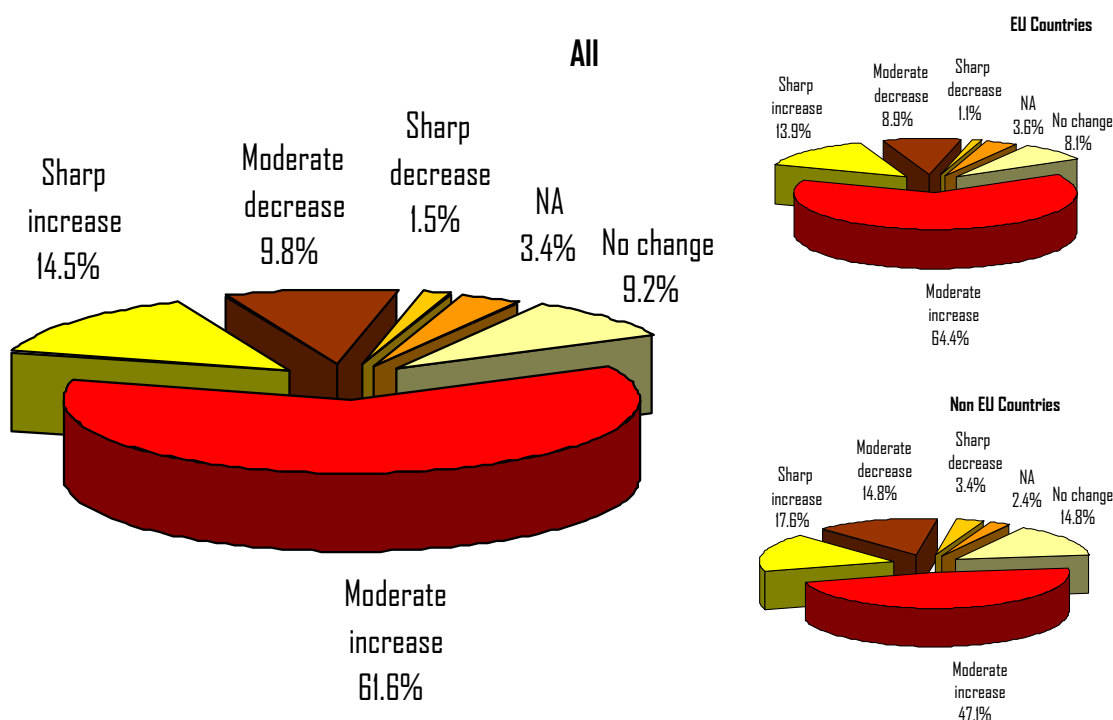
Source: Nomisma VET2020 Survey

### 3.3 Comparison between Demand and Supply for veterinary services

The investigation on those who use veterinary services (Employers e Consumer Organization) displays a further evaluation in respect to that of the veterinarians.

The evaluations expressed by the three groups of respondents seem however to substantially coincide. Furthermore, 76,1% of the Employers' responses stated that the number of practicing veterinarians in 2020 should increase, moderately for 61.6% or sharply for 14.5%.

**Graph 3.4 - According to your estimate, what will be the change in the number of employed Vets in 2020 in your country?**  
*Employers Survey - Question 1*



Source: Nomisma VET2020 Survey

Also in this case, the Non EU Countries express more prudent opinions: slightly less than 65% estimate relative growth although the proportion of those who predict a sharp increase is higher (17.6%). At the same time it appears that the number of those who foresee no changes in growth is higher.

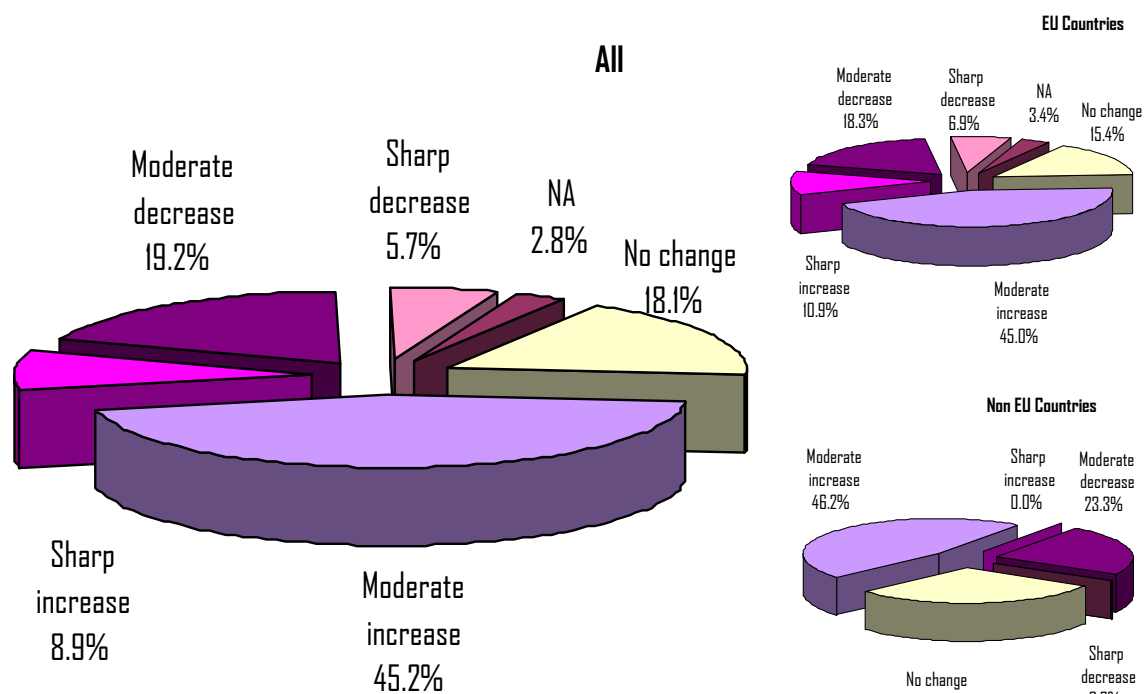
The opinions expressed by Consumer Organizations confirm the general prediction of growth, but expressed with a more cautious attitude.

In this category, a little more than 54% stated that they expected an increase in the number of veterinarian job offers in 2020. Contemporarily however, more than a quarter believe in the possibility of a moderate decrease (19.2%) or even a sharp decrease (5.7%).



**Graph 3.5 - According to your organization, what will be the change in the number of employed vets in 2020 in your country?**

*Consumer Organizations Survey - Question 1*



Source: Nomisma VET2020 Survey

Once again the Non EU Countries express a prediction of more stability. No change is expected by 30.2% of the respondents and the proportions of those expecting strong positive or negative changes are very low. Table 3.2 illustrates a direct comparison of results of the three investigations. Considering the balance value, the opinion of veterinarians and Consumer Organizations appear mostly aligned, while it is comforting to note a larger and more widely shared prediction of growth on the part of Employers.

**Table 3.2 - The Estimated Change in the Number of Employed Veterinarians in 2020 in the Country of the Respondents - A Comparison of the Three Surveys**

	EU Countries			Non EU Countries			All Countries		
	VET	EMPL	CONS ORG	VET	EMPL	CONS ORG	VET	EMPL	CONS ORG
	%			%			%		
No change	8.0	8.1	15.4	5.9	14.8	30.2	7.6	9.2	18.1
Moderate increase	40.5	64.4	45.0	42.7	47.1	46.2	41.0	61.6	45.2
Sharp increase	19.2	13.9	10.9	9.8	17.6	0.0	17.3	14.5	8.9
Moderate decrease	19.4	8.9	18.3	25.4	14.8	23.3	20.6	9.8	19.2
Sharp decrease	9.7	1.1	6.9	7.6	3.4	0.3	9.3	1.5	5.7
NA	3.2	3.6	3.4	8.6	2.4	0.0	4.3	3.4	2.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Balance</b>	<b>30.7</b>	<b>68.3</b>	<b>30.7</b>	<b>19.4</b>	<b>46.4</b>	<b>22.6</b>	<b>28.5</b>	<b>64.8</b>	<b>29.2</b>

Source: Nomisma VET2020 Survey

### 3.2 Identification of New Professional Areas Through 2020

The prediction of an increase in professional job opportunities for veterinarians in 2020 in respect to the present constitutes an important result of the survey, confirmed not only in the different geographical areas but also in the opinion of those who use professional veterinary services.

In order to better comprehend the direction of such an increase and express more valid conclusions with regard to necessary training needs, the investigation carried out an in-depth analysis relative to opportunities connected to individual fields in the profession.

Figure 3.1 synthetically divides the various fields of the profession among those that are increasing and those which are stable or decreasing. The conclusions formulated in respect to the future course of the profession have been drawn up considering the prevalence of the responses given by the respondents.

It is opportune to point out how the majority of professional fields in veterinary medicine appear to be growing while those sectors which appear to be decreasing are limited to "Experimentation on Animals", "Herd Health" and "Animal Breeding".

In this case there are no important differences between the European Union and Non EU Countries, even though in the Non EU Countries there are fewer professional fields in development and most are foreseen to be substantially stable.

**Figure 3.1 – According to your estimate, what will be the change in the number of employed veterinarians in 2020 in your country in the following fields?**

*Veterinarians Survey – Question 24*

	EU Countries	Non EU Countries	Total
	Food Quality & Safety Exotic Animal Public Health Alternative Medicine Environmental Protection Animal Welfare Pet/Companion Animal Epidemiology Organic Farming	Pet/Companion Animal Food Quality & Safety Environmental Protection Animal Welfare Sport Animal Public Health Exotic Animal Alternative Medicine	Food Quality & Safety Public Health Exotic Animal Environmental Protection Alternative Medicine Animal Welfare Pet/Companion Animal Epidemiology Organic Farming Research & Development
	Sport Animal Research & Development Aquaculture/Fish Farming	Epidemiology Aquaculture/Fish Farming Research & Development Animal Breeding Organic Farming	Sport Animal Aquaculture/Fish Farming
	Experimentation on animal Herd Health Animal Breeding	Herd Health Experimentation on animal	Experimentation on animal Herd Health Animal Breeding

Source: Nomisma VET2020 Survey



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To better grasp the intensity of foreseen changes, Table 3.3 gives the proportion of change for each field where growth is predicted to increase, decrease or remain stable, in reference to both the entire European group and the EU countries and Non EU Countries separately.

It is evident that some professional fields are considered to be increasing by a very high proportion of respondents; indicating common opinions across all areas.

"Food Quality and Security" (77.8%), "Public Health" (61.1%), "Exotic Animals" (58.7%), "Environmental Protection" (56.7%), "Animal Welfare" (54.8%) and "Pet/Companion Animals" (52.6%) are the professional fields that more than 50% of the respondents believe will undergo the most development and thus demand more veterinary professionals in the next twenty years.

Table 3.4 shows the results related to each country involved in the Veterinarians Survey.

With regard to each area of activity, there is the 'Balance Value'.

This value represents the difference between the proportion of those predicting an increase in the number of working veterinarians and the proportion of those foreseeing a decrease.

The 'Balance Value' is net of the proportion of respondents that expressed the opinion that the number of working veterinarians would remain stable.

**Table 3.3 – According to your estimate, what will be the change in the number of employed veterinarians in 2020 in your country in the following fields?**

*Veterinarians Survey – Question 24*

	INCREASE			STEADY			DECREASE			I DO NOT KNOW/NA			BALANCE		
	EU Countries	Non EU Countries	All	EU Countries	Non EU Countries	All	EU Countries	Non EU Countries	All	EU Countries	Non EU Countries	All	EU Countries	Non EU Countries	All
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Herd Health	32,2	23,1	30,4	18,8	20,5	19,1	43,4	38,8	42,5	5,7	17,5	8,0	-11,2	-15,7	-12,1
Pet/Companion Animals	49,6	64,9	52,6	33,0	20,5	30,5	10,9	7,0	10,2	6,6	7,6	6,8	38,7	57,9	42,5
Sport Animals	34,8	48,9	37,6	45,7	32,8	43,2	9,0	4,0	8,0	10,4	14,3	11,2	25,9	44,9	29,6
Exotic Animals	61,3	48,1	58,7	22,3	31,8	24,1	5,2	4,9	5,1	11,3	15,2	12,0	56,2	43,2	53,6
Alternative Medicine	59,3	42,7	56,0	23,9	24,4	24,0	5,3	4,0	5,1	11,4	28,9	14,9	54,0	38,7	51,0
Food quality and safety	81,2	64,0	77,8	14,2	22,0	15,7	2,0	5,7	2,7	2,6	8,2	3,8	79,1	58,4	75,0
Public Health	64,2	48,4	61,1	22,9	37,8	25,9	9,2	3,3	8,0	3,7	10,5	5,1	55,0	45,0	53,1
Animal Breeding	11,0	18,6	12,5	38,5	39,1	38,6	42,0	29,4	39,5	8,6	13,0	9,5	-31,0	-10,8	-27,0
Organic Farming	41,8	28,7	39,2	29,4	34,6	30,4	14,7	10,6	13,9	14,1	26,1	16,5	27,1	18,1	25,3
Acquaculture/Fish farming	36,6	21,9	33,7	39,6	44,6	40,6	7,6	9,7	8,0	16,3	23,7	17,7	29,0	12,2	25,7
Epidemiology	45,6	26,0	41,7	34,9	53,4	38,5	9,8	9,1	9,7	9,7	11,6	10,1	35,8	16,9	32,1
Environmental protection	55,5	61,7	56,7	26,8	21,9	25,8	4,7	4,1	4,6	13,0	12,2	12,8	50,8	57,6	52,1
Experimentation on animals	10,4	6,4	9,6	32,4	35,9	33,1	46,9	36,1	44,8	10,3	21,6	12,5	-36,6	-29,6	-35,2
Research and development	31,9	35,9	32,7	42,9	41,2	42,5	18,3	8,4	16,4	7,0	14,5	8,4	13,5	27,5	16,3
Animal Welfare	54,4	56,5	54,8	33,5	25,7	32,0	3,6	9,1	4,7	8,4	8,7	8,5	50,8	47,4	50,1
Other	2,8	2,1	2,7	0,2	0,1	0,2	1,6	0,2	1,3	95,3	97,7	95,8	1,2	1,9	1,4

Source: Nomisma VET2020 Survey



**Table 3.4 – Country Analysis: According to your estimate, what will be the change in the number of employed veterinarians in 2020 in your country in the following fields?**

*Veterinarians Survey – Question 24*

Balance	A	B	Fin	Fr	D	El	IrI	I	NI	P	E	S	UK	EU	Cz	Hu	N	PI	Ro	Sk	Slo	Non EU	All
	%	%	%	%	%	%	%	%	%	%	%	%	%	Count.	%	%	%	%	%	%	%	Count.	Count.
Herd Health	6,0	-45,7	25,9	-31,1	-5,0	76,2	2,8	-4,8	-78,7	-18,5	17,4	-7,6	-38,7	<b>-11,2</b>	-54,9	-32,6	-63,6	6,0	-5,5	-5,4	-43,5	<b>-15,7</b>	-12,1
Pet/Companion animal	67,9	57,5	73,1	31,6	53,3	-14,5	93,8	27,3	54,0	69,9	19,1	88,4	35,6	<b>38,7</b>	70,5	47,2	86,0	45,5	73,2	39,8	61,3	<b>57,9</b>	42,5
Sport Animals	40,7	14,1	44,2	28,0	28,0	21,6	46,0	29,3	17,8	49,6	4,2	70,9	29,3	<b>25,9</b>	57,5	65,9	53,4	16,7	53,0	53,9	76,2	<b>44,9</b>	29,6
Exotic Animals	46,8	53,1	51,0	56,0	50,2	36,5	61,1	49,2	36,2	69,7	88,9	44,9	56,4	<b>56,2</b>	32,0	53,3	51,5	16,7	68,5	51,7	53,0	<b>43,2</b>	53,6
Alternative Medicine	70,1	59,1	21,2	53,1	61,5	67,1	38,9	59,1	48,2	27,3	54,0	28,2	41,1	<b>54,0</b>	20,6	67,9	51,3	24,8	45,1	36,1	59,2	<b>38,7</b>	51,0
Food quality and safety	80,2	63,3	71,0	86,5	74,9	93,8	77,1	66,7	95,6	87,3	96,3	51,8	74,3	<b>79,1</b>	55,9	61,8	72,5	67,7	41,8	72,9	28,9	<b>58,4</b>	75,0
Public Health	62,1	52,3	57,1	74,5	48,0	85,3	48,9	13,7	92,1	67,4	49,7	58,2	72,8	<b>55,0</b>	33,9	10,3	67,4	62,0	41,7	49,1	29,0	<b>45,0</b>	53,1
Animal Breeding	-35,8	-34,6	-5,1	-16,9	-25,0	12,4	-42,8	-18,6	-43,7	-18,2	-67,2	-38,0	-44,8	<b>-31,0</b>	-12,1	-52,7	-27,9	-6,8	13,6	-12,4	-39,7	<b>-10,8</b>	-27,0
Organic Farming	20,8	16,9	32,4	52,6	12,5	77,1	19,9	32,7	11,3	19,4	42,3	25,7	0,2	<b>27,1</b>	4,0	34,9	15,4	22,3	-3,7	51,0	28,5	<b>18,1</b>	25,3
Acquaculture/Fish farming	6,0	16,4	-18,7	15,0	17,4	65,6	15,0	41,4	28,4	54,8	70,9	10,7	12,7	<b>29,0</b>	3,4	-0,3	85,6	4,5	20,3	1,3	8,0	<b>12,2</b>	25,7
Epidemiology	20,6	31,6	39,6	47,4	29,1	44,8	30,2	44,3	34,1	24,2	25,9	52,5	36,8	<b>35,8</b>	9,7	-14,4	35,4	28,1	13,8	24,1	18,4	<b>16,9</b>	32,1
Environmental protection	34,7	47,8	40,0	47,4	52,3	78,4	45,3	46,1	23,6	47,3	85,7	43,6	30,7	<b>50,8</b>	65,8	89,6	25,8	31,3	68,2	77,7	62,2	<b>57,6</b>	52,1
Experimentation on animals	-23,7	-37,0	-11,7	-2,8	-70,9	-14,1	-58,2	-25,5	-8,0	-9,8	-31,2	-31,0	-51,8	<b>-36,6</b>	-50,1	-43,1	-19,0	-29,2	-4,8	-47,8	-57,2	<b>-29,6</b>	-35,2
Research and development	28,2	6,7	59,9	21,9	11,4	64,5	-13,7	24,1	18,4	21,8	11,6	39,1	-21,0	<b>13,5</b>	28,6	27,5	26,8	14,3	37,9	37,6	31,9	<b>27,5</b>	16,3
Animal Welfare	62,5	55,5	57,8	56,7	34,5	73,4	45,6	64,9	35,2	77,4	71,4	63,8	27,3	<b>50,8</b>	60,7	79,3	60,5	28,7	42,8	51,6	55,5	<b>47,4</b>	50,1

Source: Nomisma VET2020 Survey

Although having different proportions, analogous situations seem to be present in the different geographical areas taken into consideration.

Figure 3.4 shows the most important fields in terms of growth, stability or decrease for each of the seven regions.

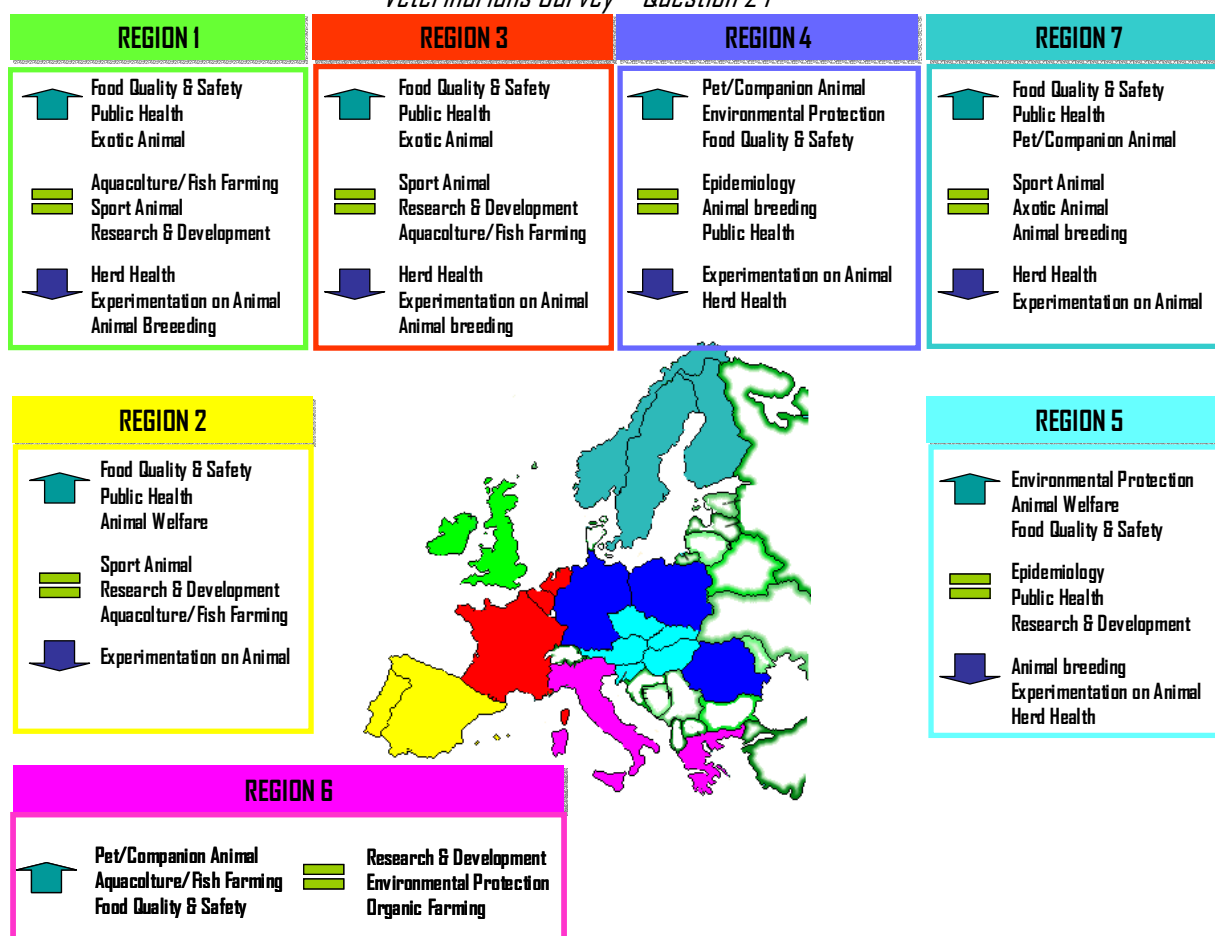
The trend for each geographical area was identified by the prevalence of the responses by veterinarians of each region.

Only the field "Food Quality and Safety" appears among the first three choices for every region and seems to be the most highly considered element in Region 1 (Ireland and United Kingdom), Region 2 (Portugal and Spain), Region 3 (Netherlands, France and Belgium) and Region 7 (Finland, Norway and Sweden).

In Regions 4 (Germany, Poland and Romania) and Region 6 (Greece and Italy) the future role of "Pet and Companion Animals" seems to prevail. Region 5 (Austria, Czech Republic, Hungary, Slovak Republic and Slovenia) showed a prevalence of respondents indicating activity regarding "Environmental Protection."

**Figure 3.4 – Regions: According to your estimate, what will be the change in the number of employed veterinarians in 2020 in your country in the following fields?**

*Veterinarians Survey – Question 24*



Source: Nomisma VET2020 Survey

In the same way, the prospects appear rather homogeneous in respect to the fields identified as decreasing.

Also in this case "Experimentation on Animals" is the field unanimously seen as decreasing and together with "Herd Health" and "Animal Breeding" seem to be the fields of least interest for the future.

Also in this case, the opinions expressed by the veterinarians appear to be coherent with the results obtained from the investigation involving users of veterinary services.

In Figure 3.5 and in Tables 3.6 - 3.8, it is possible to identify a substantially identical point of view among Employers and Consumer Organizations.

**Figure 3.5 – According to your estimate, what will be the change in the number of employed veterinarians in 2020 in your country in the following fields?**

*Employers Survey – Question 2*

	EU Countries	Non EU Countries	Total
	<ul style="list-style-type: none"> <li>Food quality and safety</li> <li>Pet/Companion Animals</li> <li>Alternative Medicine</li> <li>Environmental protection</li> <li>Public Health</li> <li>Animal Welfare</li> <li>Exotic Animals</li> <li>Organic Farming</li> </ul>	<ul style="list-style-type: none"> <li>Food quality and safety</li> <li>Environmental protection</li> <li>Animal Welfare</li> <li>Public Health</li> <li>Organic Farming</li> <li>Pet/Companion Animals</li> <li>Alternative Medicine</li> <li>Herd Health</li> <li>Epidemiology</li> <li>Research and development</li> <li>Exotic Animal</li> <li>Herd Health</li> </ul>	<ul style="list-style-type: none"> <li>Food quality and safety</li> <li>Environmental protection</li> <li>Pet/Companion Animals</li> <li>Public Health</li> <li>Animal Welfare</li> <li>Alternative Medicine</li> <li>Exotic Animals</li> <li>Organic Farming</li> <li>Epidemiology</li> <li>Herd Health</li> </ul>
	<ul style="list-style-type: none"> <li>Research &amp; Development</li> <li>Animal Breeding</li> <li>Sport Animal</li> <li>Experimentation on animal</li> <li>Aquaculture/ Fish Farming</li> </ul>	<ul style="list-style-type: none"> <li>Acquaculture /Fish farming</li> <li>Experimentation on animals</li> <li>Animal Breeding</li> <li>Sport Animals</li> <li>Exotic Animals</li> </ul>	<ul style="list-style-type: none"> <li>Research and development</li> <li>Sport Animals</li> <li>Acquaculture /Fish farming</li> <li>Animal Breeding</li> <li>Experimentation on animals</li> </ul>
	<ul style="list-style-type: none"> <li>Herd Health</li> </ul>		

Source: Nomisma VET2020 Survey

**Table 3.6 – According to your estimate, what will be the change in the number of employed veterinarians in 2020 in your country in the following fields?**

*Employers Survey – Question 2*

	INCREASE			STEADY			DECREASE			I DO NOT KNOW/NA			BALANCE		
	EU Countries	Non EU Countries	All	EU Countries	Non EU Countries	All	EU Countries	Non EU Countries	All	EU Countries	Non EU Countries	Total	EU Countries	Non EU Countries	All
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Herd Health	30.8	52.6	34.3	20.2	21.7	20.4	36.2	15.3	32.8	12.8	10.4	12.4	-5.3	37.4	1.5
Pet/Companion Animals	59.9	59.1	59.8	25.4	25.8	25.4	2.5	1.7	2.3	12.2	13.4	12.4	57.5	57.5	57.5
Sport Animals	37.7	42.2	38.4	40.6	38.6	40.3	3.4	3.3	3.4	18.4	15.9	18.0	34.3	38.9	35.1
Exotic Animals	50.4	37.0	48.2	27.2	33.5	28.2	2.2	1.7	2.1	20.3	27.8	21.5	48.2	35.3	46.1
Alternative Medicine	57.6	55.4	57.2	17.7	19.8	18.0	1.0	1.7	1.1	23.7	23.1	23.6	56.6	53.7	56.1
Food quality and safety	70.5	88.8	73.4	22.4	7.9	20.1	2.1	0.0	1.8	5.0	3.3	4.7	68.4	88.8	71.6
Public Health	56.4	75.0	59.4	30.6	16.9	28.4	6.1	1.7	5.4	6.9	6.4	6.8	50.3	73.4	54.0
Animal Breeding	9.6	25.6	12.2	42.4	42.8	42.4	32.0	23.6	30.6	16.0	8.0	14.8	-22.4	2.0	-18.5
Organic Farming	45.0	60.2	47.5	22.3	18.2	21.7	7.3	3.3	6.7	25.3	18.3	24.2	37.7	56.8	40.8
Acquaculture/Fish farming	32.2	22.2	30.6	32.4	51.8	35.5	5.9	2.1	5.3	29.5	23.9	28.6	26.3	20.1	25.3
Epidemiology	41.4	51.6	43.0	36.8	45.1	38.1	3.5	3.4	3.5	18.3	0.0	15.4	37.9	48.2	39.5
Environmental protection	56.5	83.3	60.9	25.4	11.6	23.2	2.1	0.0	1.8	16.0	5.1	14.2	54.4	83.3	59.1
Experimentation on animals	9.8	17.2	11.0	39.7	43.3	40.3	31.4	24.3	30.3	19.1	15.2	18.5	-21.6	-7.1	-19.2
Research and development	37.5	49.9	39.5	44.1	33.3	42.4	9.6	6.7	9.1	8.8	10.1	9.0	28.0	43.2	30.4
Animal Welfare	55.6	79.0	59.4	31.5	12.2	28.4	2.3	0.4	2.0	10.6	8.4	10.2	53.3	78.7	57.4

Source: Nomisma VET2020 Survey



In the opinion of Employers, the sectors expecting the most growth in order are “Food Quality and Safety” (73.4%), “Environmental Protection” (60.9%), “Pet/Companion Animals” (59.8%) “Public Health” (59.4%), “Animal Welfare” (59.4%) e “Alternative Medicine” (57.2%).

Unlike the survey of veterinarians, the most clear-cut opinions come from the respondents from the Non EU Countries. According to Employers in these countries, future demand for veterinary services will be wider and more diversified.

Figure 3.7 and Table 3.8 summarize the results of the survey of Consumer Organizations.

**Figure 3.7 – According to your estimate, what will be the change in the number of employed veterinarians in 2020 in your country in the following fields?**

*Consumer Organizations Survey – Question 2*

	EU Countries	Non EU Countries	Total
	Food Quality & Safety Public Health Animal Welfare Alternative Medicine Pet/Companion Animal Environmental Protection Epidemiology Herd Health Research & Development Organic Farming Exotic Animal	Environmental Protection Animal Welfare Food Quality & Safety Public Health Organic Farming Herd Health Pet/Companion Animal Sport Animal Epidemiology Research & Development Alternative Medicine	Food Quality & Safety Public Health Animal Welfare Environmental Protection Pet/Companion Animal Alternative Medicine Herd Health Epidemiology Organic Farming Research & Development Sport Animal
	Animal Breeding Sport Animal	Aquaculture /Fish Farming Experimentation on animal Animal Breeding Exotic Animal	Animal Breeding Exotic Animal
	Experimentation on animal		Experimentation on animal

Source: Nomisma VET2020 Survey



**Table 3.8 - According to your estimate, what will be the change in the number of employed veterinarians in 2020 in your country in the following fields?**

*Consumer Organizations Survey - Question 2*

	INCREASE			STEADY			DECREASE			I DO NOT KNOW/NA			BALANCE		
	EU Countries	Non EU Countries	All	EU Countries	Non EU Countries	All	EU Countries	Non EU Countries	All	EU Countries	Non EU Countries	All	EU Countries	Non EU Countries	All
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Herd Health	45,6	68,4	49,8	18,1	22,5	18,9	18,4	8,1	16,5	17,9	1,1	14,8	27,2	60,3	33,3
Pet/Companion Animals	51,2	67,7	54,2	21,9	21,5	21,8	2,9	0,0	2,3	24,0	10,8	21,6	48,4	67,7	51,9
Sport Animals	32,8	67,5	39,1	35,5	10,9	31,0	4,1	0,0	3,3	27,6	21,6	26,5	28,7	67,5	35,8
Exotic Animals	28,9	18,4	27,0	26,2	29,8	26,9	15,0	8,3	13,8	29,8	43,5	32,3	13,9	10,1	13,2
Alternative Medicine	52,4	38,0	49,8	16,9	24,5	18,3	4,3	14,0	6,0	26,5	23,6	25,9	48,1	24,0	43,7
Food quality and safety	85,0	75,9	83,3	3,9	13,3	5,6	2,9	0,3	2,4	8,2	10,6	8,6	82,1	75,6	80,9
Public Health	67,7	75,6	69,1	15,8	9,6	14,7	3,4	3,6	3,5	13,1	11,1	12,7	64,2	72,0	65,7
Animal Breeding	25,0	32,2	26,3	44,2	41,4	43,7	14,0	12,2	13,6	16,9	14,2	16,4	11,0	20,0	12,7
Organic Farming	37,5	70,5	43,5	32,8	11,4	28,9	3,7	6,7	4,3	26,0	11,4	23,3	33,7	63,8	39,2
Acquaculture/Fish farming	25,7	14,0	23,6	30,9	46,6	33,8	3,8	0,0	3,1	39,6	39,5	39,6	21,9	14,0	20,5
Epidemiology	47,2	55,5	48,7	26,4	30,1	27,1	5,0	0,0	4,0	21,5	14,5	20,2	42,2	55,5	44,7
Environmental protection	50,9	83,9	57,0	23,2	0,8	19,1	6,0	3,4	5,5	19,9	11,9	18,4	45,0	80,6	51,5
Experimentation on animals	14,6	10,8	13,9	21,2	44,6	25,5	41,6	33,4	40,1	22,6	11,1	20,5	-26,9	-22,6	-26,2
Research and development	39,7	50,3	41,6	35,4	27,8	34,0	11,6	10,8	11,5	13,3	11,1	12,9	28,0	39,4	30,1
Animal Welfare	63,4	79,8	66,4	21,4	9,1	19,2	1,1	0,0	0,9	14,1	11,1	13,5	62,4	79,8	65,5

Source: Nomisma VET2020 Survey

Also in this case, predictions of growth appear to involve a larger number of sectors than that estimated by the veterinarians survey and confirm the considerations already stated by the Employers' Survey.

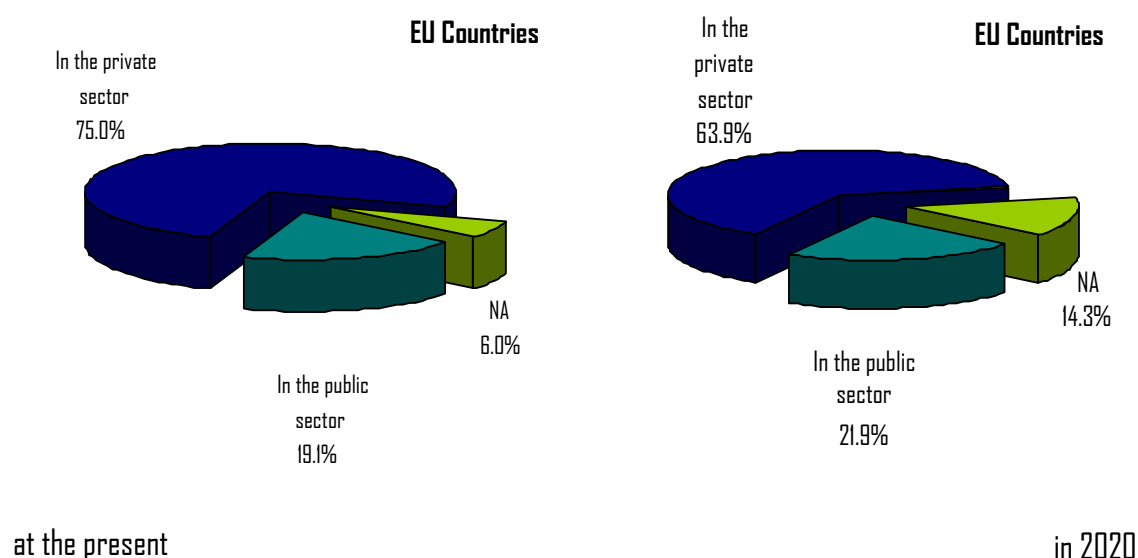
In addition to defining future market demands and fields of major interest, the investigation also asked the opinions of veterinarians with regard to work opportunities' sectors today and over the course of the next twenty years.

Graphs 3.6 e 3.7 show the results in reference to countries of the European Union and the Non EU Countries.

Respondents from EU countries predict substantial stability in market demands for the public sector and expect that professional opportunities may increase slightly, from 19.1% to 21.9%.

### Graph 3.6 – EU Countries: Where would you have better opportunities to find a job? – Present and 2020

*Veterinarians Survey - Question 7*



Source: Nomisma VET2020 Survey

It seems however that in the private sector, demand will decrease and even though it is still by far the field of major interest, it will decrease approximately 9% between the present time and 2020.

Increasing however, as was expected, is the proportion of those who are unable to express an opinion as to which field will offer the best job prospects.

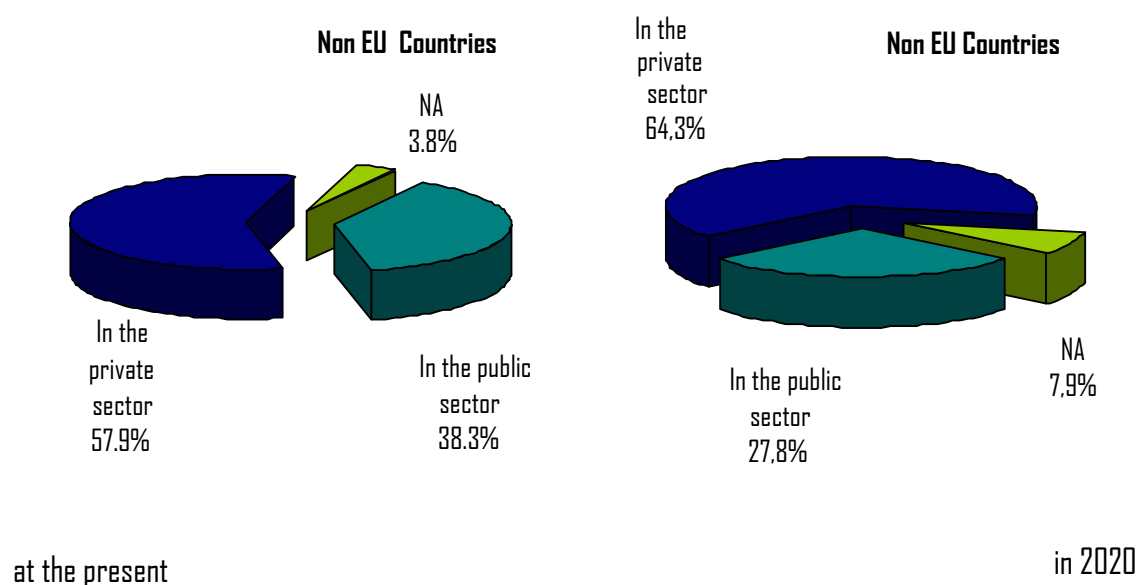
In this case, the opinions of the respondents from the Non EU Countries are quite dissimilar.

The private sector passes from 57.9% relative to the present situation to 64.3% with regard to the scenario in 2020, in line with the opinions expressed by veterinarians in the European Union countries.

The public sector appears to be quite the opposite, showing a net decrease in job opportunities, even though today it represents a good professional job opportunity for 38.3% but it is expected to drop to 28% over the next twenty years.

### Graph 3.7 – Non EU Countries: Where would you have better opportunities to find a job? – Present and 2020

*Veterinarians Survey - Question 7*



Source: Nomisma VET2020 Survey

Opinions on the best opportunities of finding a job in the public or private sector demonstrate that in the individual regions, situations and market states are quite the opposite.

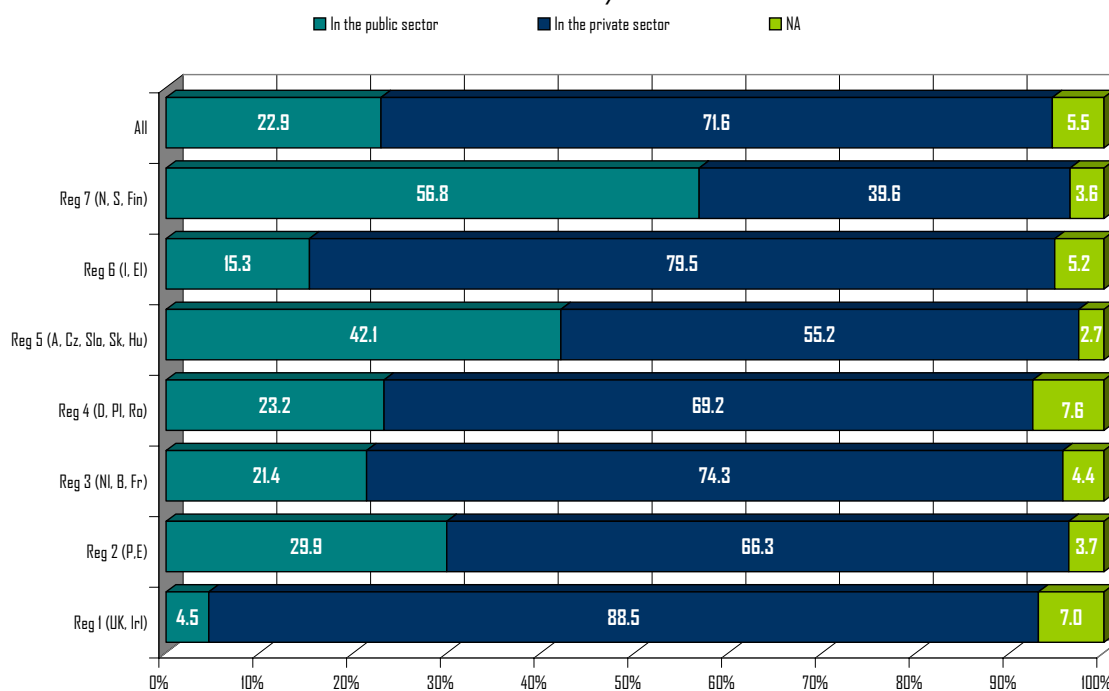
For example, the public sector represents a good professional opportunity for a high proportion of respondents in the Region 7 (Finland, Sweden and Norway, 56.8%) and in Region 5 (Austria, Czech Republic, Hungary, Slovak Republic and Slovenia, 42.1%). However, both of these areas foresee a decrease in such opportunities in the next twenty years.

Contemporarily, countries of the Region 6 (Italy and Greece), Germany, Poland, Romania and the Region 3 (France, Belgium and Netherlands) seem to estimate a decrease in the private sector.

However, in Region 2 (Spain and Portugal) and Region 1 (United Kingdom and Ireland), the private sector is foreseen as being absolutely dominant in reference to future job possibilities.

### Graph 3.8 – Regions - Present: Where would you have better opportunities to find a job?

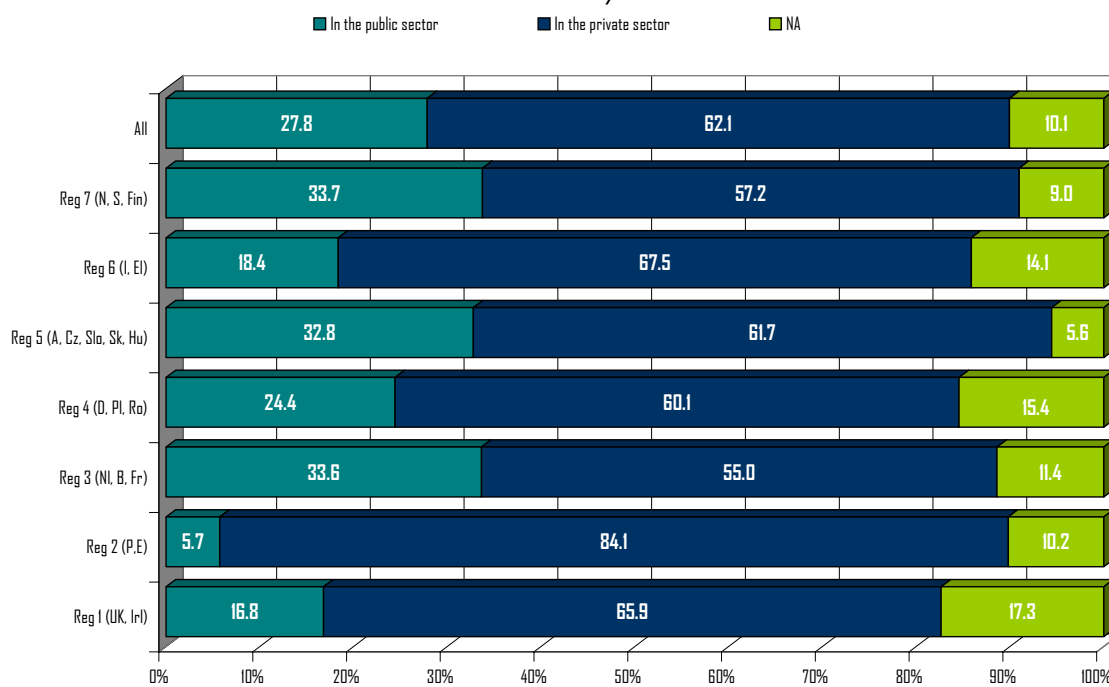
#### Veterinarians Survey - Question 7



Source: Nomisma VET2020 Survey

### Graph 3.9 – Regions – 2020: Where would you have better opportunities to find a job?

#### Veterinarians Survey - Question 7



Source: Nomisma VET2020 Survey

Further consideration regards the time interval necessary to find a steady job.

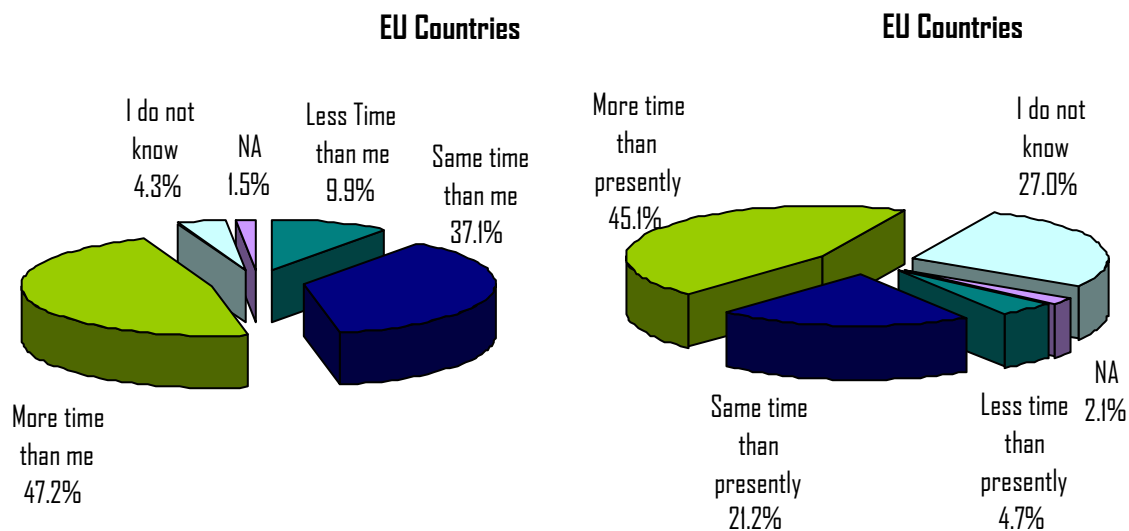
More than 47% of the veterinarians in the EU countries believe more time is necessary to find steady employment today than was necessary at the start of their professional careers. Another 37% believe that the time interval has remained the same while only 10% believe that it is easier to find a steady job today than in the past.

The increasing difficulty in finding steady employment, based on predictions of the EU respondents, seems to also be true for the future.

In fact 45% believe that more time will be necessary to find a steady job in 2020 than today. At the same time, only a little less than 5% believe that the time interval will be shorter.

**Graph 3.10 – EU Countries - How long do you feel it would take for a VET graduate to find a steady job in your home country, in comparison to the time that it took you?**

*Veterinarians Survey - Question 5, 6*



at the present

in 2020

Source: Nomisma VET2020 Survey

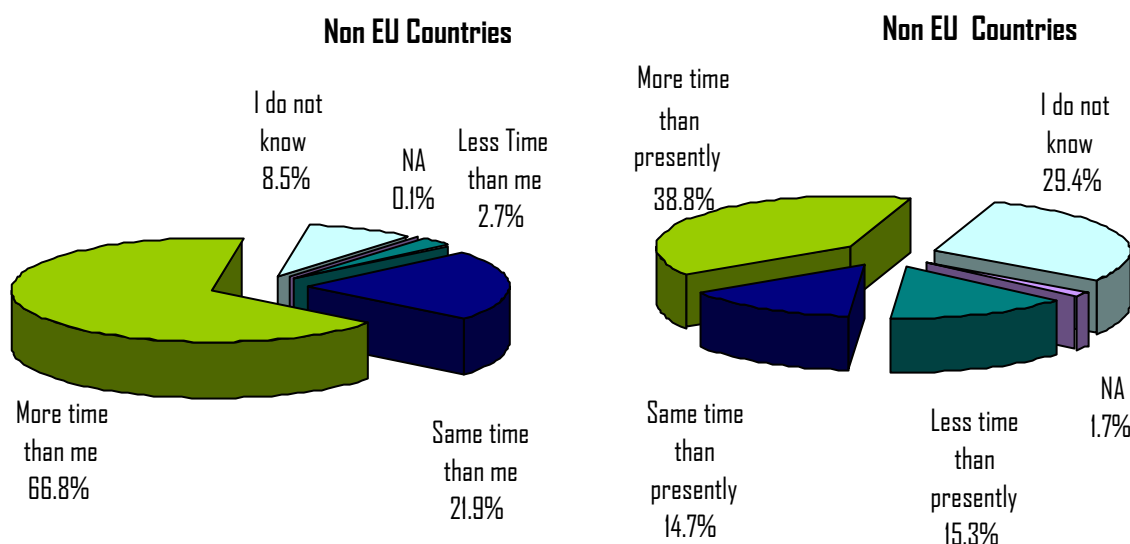
The situation appears slightly different in the Non EU Countries.

In fact, more than two-thirds of these respondents believe that it is more difficult to find a steady job in today's market in respect to their own professional experience.

On the other hand, it is also true that the majority of these countries had central economic planning systems which probably guaranteed a simpler and more rapid possibility of finding employment.

**Graph 3.11 – Non EU Countries - How long do you feel it would take for a VET graduate to find a steady job in your home country, in comparison to the time that it took you?**

*Veterinarians Survey - Question 5, 6*



at the present

in 2020

Source: Nomisma VET2020 Survey

However, these same respondents are more optimistic than their colleagues in reference to the comparison between the present time and 2020. A little more than 39% hold that it will be more difficult to find a steady job but more than 15% believe that the future holds more opportunity than the present.

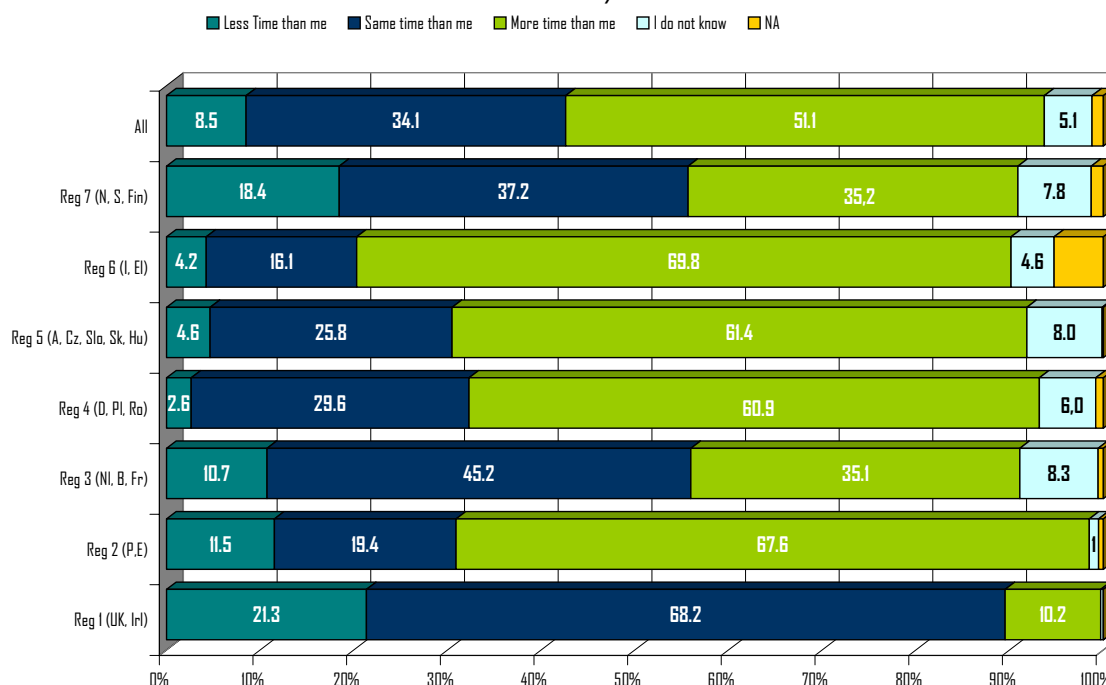
Also in this case, the analysis of single regions points to quite different situations and dynamics. Region 7 (Finland, Norway and Sweden), Region 1 (United Kingdom and Ireland) and Region 3 (France, Belgium and Netherlands) present better prospects in terms of opportunities of finding steady employment.

In particular, Region 1 (The United Kingdom and Ireland) is the only area where the number of respondents who believe that it is easier to find a job today than in the past outnumber those who believe the opposite.

Conversely, Region 2 (Spain and Portugal), Region 4 (Germany, Poland and Romania), Region 5 (Austria, Czech Republic, Hungary, Slovak Republic and Slovenia) and Region 6 (Greece and Italy) clearly believe that it is more difficult to find steady employment today than in the past.

**Graph 3.12 – Regions: How long do you feel it would take for a recent VET graduate to find nowadays a steady job in your home country, in comparison to the time that it took you?**

*Veterinarians Survey - Question 5*



Source: Nomisma VET2020 Survey

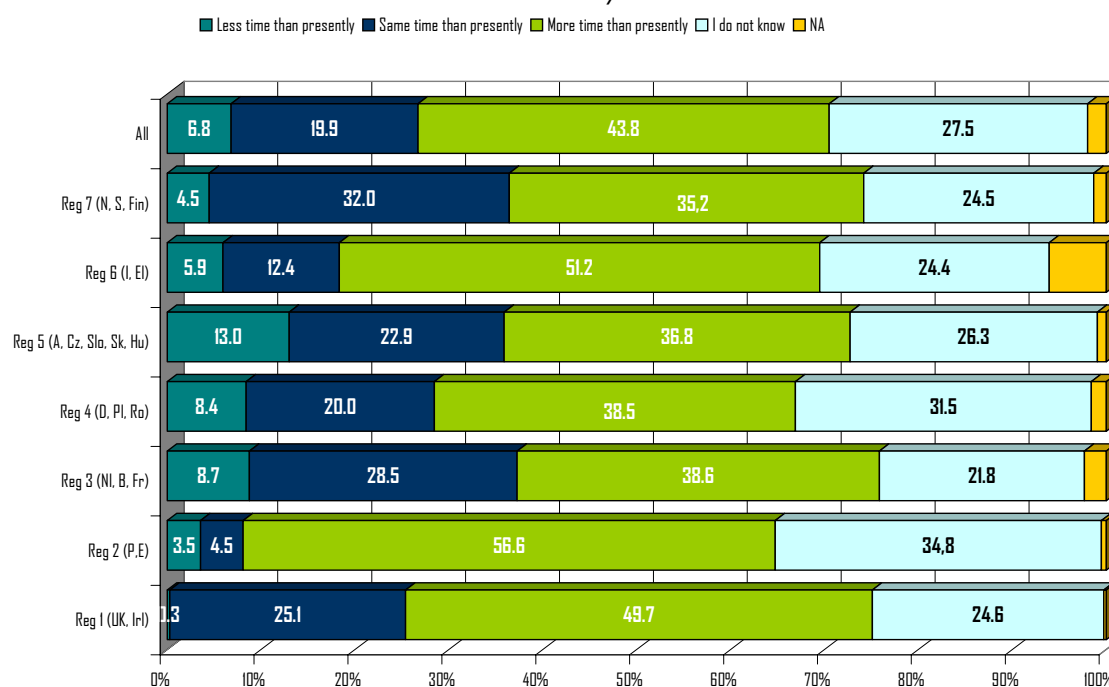
The future efficiency of the market to supply steady employment to new veterinarians appears subject to different evaluations. Also in this case, all countries are in agreement on the increased difficulty in the future in respect to the present, but in some cases, such differences are particularly large (Regions 1,2 and 6) and less so in other regions.

In this case, it is important to note the number of missing responses, equal to twenty-five percent of the total, indicates the difficulty respondents had in formulating a response in respect to other questions.



**Graph 3.13 –Regions: How long do you feel it would take for a VET graduate to find a steady job in your home country in your home country?**

*Veterinarians Survey - Question 6*



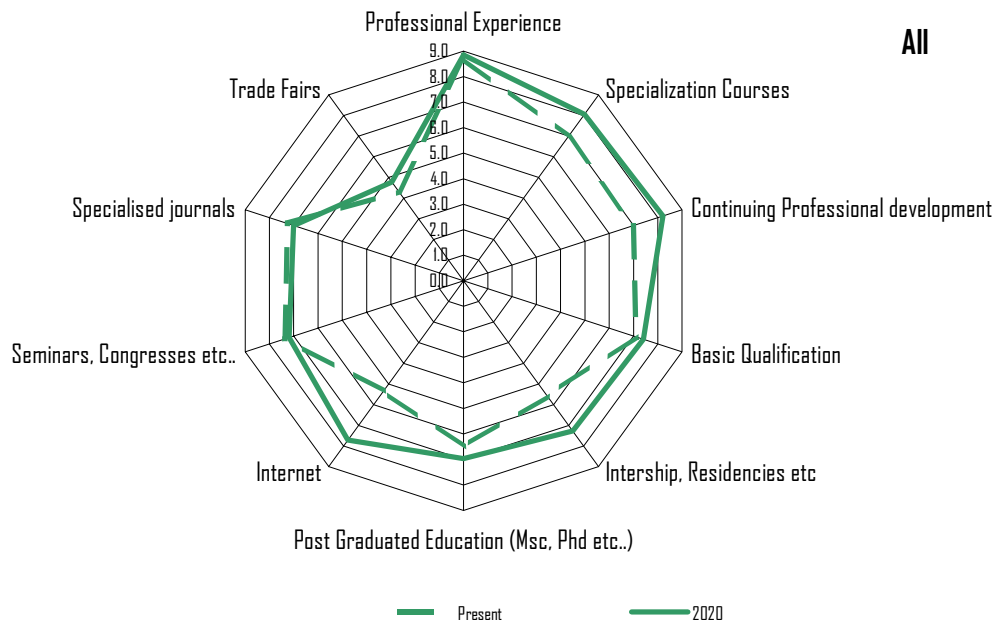
Source: Nomisma VET2020 Survey

A last consideration regards the tools and professional training most useful for the veterinary profession at the present time and prospects over the next twenty years. The following graph illustrates a point score (from 0-10) assigned by veterinarians to a selected number of items.

It is easy to note how Basic Qualifications are considered fundamental today, as are Post Graduate Education, Professional Experience and the use of Specialized Journals, Refresher Courses and Seminars to remain up to date with the profession. Tools to be used in the future are the use of the Internet, Internships, Residencies, Specialization courses and Continuing Professional Development.

**Graph 3.14 – All Countries – How useful did you find the following professional training for your VET career development?**

*Veterinarians Survey - Question 16, 17*



Source: Nomisma VET2020 Survey

In the opinion of the respondents, it seems to emerge, that for the future there is a need for wider and more diversified tools and education and training in respect to what has been used up to today. Along with the competence acquired by professional practice and experience, it appears necessary to increase training and specialization in order to maintain professional ability up to date.

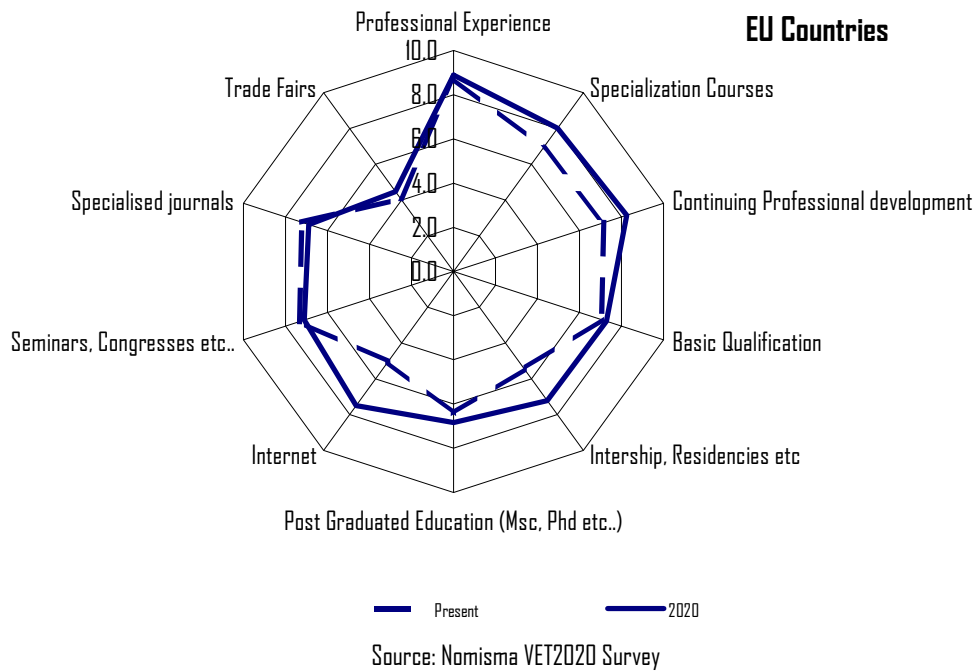
Also in this case, there are numerous similarities between the European Union Countries and the Non EU Countries.

In any case, for the Non EU Countries, the professional competence necessary today and that which will be necessary in the future appears more clear-cut.

For the Non EU Countries, the training and tools necessary for 2020 appear to be even more extensive than the already extensive training and tools designated by the opinions of the EU veterinarians.

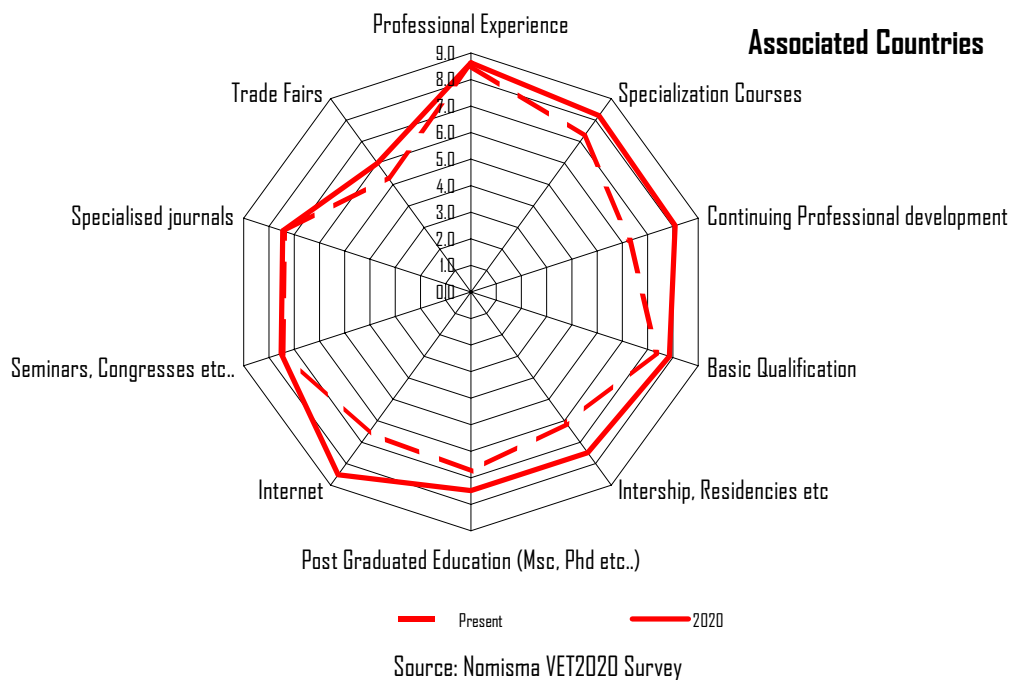
**Graph 3.15 – EU Countries - How useful did you find the following professional training for your VET career development?**

*Veterinarians Survey - Question 16, 17*



**Graph 3.16 – Non EU Countries - How useful did you find the following professional training for your VET career development?**

*Veterinarians Survey - Question 16, 17*



For a complete analysis in terms of a perspective view, it is necessary to try to interpret what principal difficulties and challenges will be confronting the profession in 2020 as well as defining the most important opportunities that veterinarians will make use of.

Ideas concerning such themes were requested in both the Veterinarian and Employer surveys. The respondents were able to give more than one answer. The following tables give the results in reference to both the first answers as well multiple responses.

Table 3.9 gives the opinions of veterinarians in relation to the principal challenges facing the profession in the future. The first evident problem is the difficulty arising from having too many veterinary professionals. Notwithstanding the projected necessity of more jobs in the profession, this appears to worry the veterinarians. This element was cited as the first response by 28.4% of the respondents and represented 47% of all the responses.

Concerns of high competition was indicated not only in reference to the number of professionals that work in the sector but also because of the emergence of new figures (3.2% for the first response and 14.3% of multiple responses), with different training (biologists, chemists etc.) that in particular areas of activity could also constitute a threat to the veterinary profession by putting into play more specific areas of competence.

**Table 3.9 – Which are in your opinion, the main challenges and difficulties that the veterinary profession will face over the long term future (2020) in your country?**

*Veterinarians Survey - Question 25*

Countries	EU	EU	Non EU	Non EU	All - All - 1st	All - Multiple*
	Countries - 1st %	Countries - Multiple* %	Countries - 1st %	Countries - Multiple* %		
high competition - too many professionals	29.9	47.6	22.2	44.5	28.4	47.0
changes in animal production - decrease of livestock/production/consumption	6.4	20.7	13.3	30.6	7.8	22.6
more attention to the market needs	4.7	15.4	1.9	8.8	4.2	14.1
improving competence pre-post graduation	3.6	18.6	3.1	19.7	3.5	18.8
new changes in agriculture	3.9	7.6	0.9	9.1	3.3	7.9
competition from other professions	3.7	17.3	0.9	2.2	3.2	14.3
few number of vet in some fields	3.7	6.8	0.0	1.3	3.0	5.7
increasing request of specialization	3.3	21.9	1.2	10.1	2.9	19.5
the EU access/Global market	1.4	6.5	6.2	22.4	2.4	9.6
decrease of the male-female ratio	1.7	7.1	5.2	8.1	2.4	7.3
laws & bureaucracy	2.0	10.5	2.5	20.2	2.1	12.4
increasing importance of food quality & safety	2.1	13.8	1.1	14.4	1.9	13.9
increasing importance of public health	1.6	6.0	0.4	2.7	1.4	5.4
bad economic situation/decrease of demand	1.0	5.6	1.5	9.3	1.1	6.4
spread of new diseases	0.3	4.8	3.2	7.9	0.9	5.4
decrease of the purchase power of the animal owners	0.8	3.4	0.7	7.8	0.8	4.2
other	18.9		16.1		18.4	
NA	11.0		19.5		12.6	
<b>Tot</b>	<b>100.0</b>		<b>100.0</b>		<b>100.0</b>	

Source: Nomisma VET2020 Survey

Considering the multiple responses, 22% foresee problems for the profession due to changes that will take place in the fields of animal production, with particular reference to a decrease in the number of animals, livestock production and the consumption of products of animal origin.

According to the veterinarians, the increasing necessity of specialization in particular professional fields (19.5%) and the need for improved undergraduate and post-graduate competence (18.8%) must not be underestimated. Not to be underestimated either is the need to pay more attention to future market needs (14.1%) and the increasing importance of specialization that will be required in reference to the field of food quality and safety (13.9%).

Table 3.9 moreover illustrates the distinction of the results in relation to the EU and Non EU countries, where the differences can be appreciated in detail. It should be noted how the Non EU Countries single out the possible entrance into the European Union as a challenge (6.2% as the first choice response and 22.4% of the multiple responses), stressing how the implications relative to increased market globalization must not be underestimated. In this context, the presence of new laws, regulations and increased bureaucracy (2.5% e 20.2%) are also indicated as possible sources of concern.

With regard to the challenges that the profession must face, it is fundamental to understand the opinions expressed by those in the Employers Survey. This survey confirms the opinion of increased competition due to an excessive number of veterinarians. This was cited as a cause of worry as the first response by 30% in the twenty participating countries and made up 43.9% of the total number of responses.

Viewing the list of multiple responses, the scant attention paid to market demands (33.3%) and the lack of specialization (30.8%) can be considered critical factors which could influence the veterinary profession in 2020. In this case also, the increasing importance of demands for quality and safety in the food industry (27.4%) could be a source of difficulty for the profession, unless the needed improvements are brought into play. These worries are even more evident when considering the Non EU Countries (36.6%).

In the Employers Survey of the Non EU Countries, more attention is once again paid to the changes that will take place in terms of laws and bureaucracy (34.4%) and to entrance into the European Union (27.9%).

**Table 3.10 - Which are in your opinion, the main challenges and difficulties that the veterinary profession will face over the long term future (2020) in your country?**

*Employers Survey - Question 3*

Countries	EU	EU	Non Eu	Non Eu	All - Ist	All - Multiple*
	Countries - Ist	Countries - Multiple*	Countries - Ist	Countries - Multiple*		
	%	%	%	%	%	%
high competition - too many professionals	33.7	47.7	10.5	24.2	30.0	43.9
more attention to the market needs	7.9	36.9	4.7	14.5	7.4	33.3
lack of knowledge/specialisation	7.0	32.1	5.5	24.1	6.7	30.8
increasing importance of food quality & safety	4.5	25.7	14.9	36.6	6.2	27.4
changes in animal production - decrease of livestock/prod/cons.	6.2	11.7	0.0	8.6	5.2	11.2
the EU access/Global market	2.7	15.1	8.8	27.9	3.7	17.1
bad economic situation/decrease of the demand	3.5	5.0	3.7	9.2	3.5	5.6
changes in agriculture-breeding	3.9	18.2	0.0	10.0	3.3	16.9
law and bureaucracy	2.6	10.7	5.0	34.4	3.0	14.5
competition from other professions	3.3	12.3	0.0	0.0	2.8	10.3
need of competences in other areas (mkt, economics ..)	2.3	5.7	0.0	0.4	2.0	4.9
spread of new diseases	0.0	3.8	8.4	19.3	1.4	6.3
decrease of the male-female ratio	0.9	3.9	3.4	10.0	1.3	4.9
other	14.4	71.1	30.0	86.6	16.9	73.6
NA	7.1	5.6	5.0	3.0	6.7	5.2
<b>Tot</b>	<b>100.0</b>		<b>100.0</b>		<b>100.0</b>	

Source: Nomisma VET2020 Survey

In addition to such worries, the main changes which will involve the veterinary profession and that represent an important opportunity for work were also indicated.

In this context, the opinions of the veterinarians interviewed confirmed the widespread belief that important job opportunities will be available in reference to the control and inspection of foods of animal origin. In fact, the increased demands for food safety represents the first choice response for 19% of the total number of respondents and was cited by 51.5% of all those responding.

Job opportunities in this field are better viewed by countries of the EU (21.5% as the first response and 55.6% of the multiple responses) than by the Non EU Countries (8.9% and 35.2%)

Additional job opportunities for veterinary professionals could also regard the emergence of new diseases or the re-emergence of older epidemics (15.2% as the first response and 32.0% of the multiple responses). Among other factors involving changes in the future, opportunities in Public Health (7.7% and 25.0%) and Pets/Companion Animals (6.0% e 21.9%) must not be forgotten.

Table 3.11 indicates in detail the responses in relation to individual geographical areas.

**Table 3.11 - Which are in your opinion, the most determinant changes by 2020 that will be represent major work opportunities for the veterinary profession?**

*Veterinarians Survey - Question 26*

Countries	EU		Non EU		All - 1st %	All - Multiple* %
	Countries - 1st %	Countries - Multiple* %	Countries - 1st %	Countries - Multiple* %		
opportunities related to the food quality & safety	21.5	55.6	8.9	35.2	19.0	51.5
spread of new/old diseases	14.6	30.7	17.5	37.2	15.2	32.0
opportunities related to the public health	8.8	26.5	3.2	19.1	7.7	25.0
opportunities related to the companion animals	6.1	22.0	5.6	21.6	6.0	21.9
improvement of the economic situation/increase of the demand	2.8	11.0	9.8	22.7	4.1	13.3
increasing demand of specialization	4.3	15.1	2.3	12.6	3.9	14.6
Broader market e.g.(EU admission/enlargement, globalisation, etc)	2.4	14.9	6.6	24.2	3.2	16.8
opportunities related to the environment	1.7	14.8	6.1	26.3	2.5	17.1
opportunities related to the animal welfare	2.3	18.0	2.2	12.7	2.3	17.0
preventive medicine/surveillance	1.7	16.3	3.8	12.2	2.1	15.5
new diagnostics/methods/technologies	1.9	10.7	2.9	16.1	2.1	11.8
new legislation	1.5	6.8	2.0	5.5	1.6	6.5
opportunities related to the herd health	1.3	9.7	0.5	4.3	1.2	8.7
changes in agriculture-breeding	0.8	7.1	1.9	12.9	1.0	8.2
opportunities related to the research & development	1.1	7.2	0.8	5.0	1.0	6.8
better university system education	0.9	2.3	0.3	4.2	0.8	2.7
opportunities related to the exotic animals	0.1	6.1	0.8	5.2	0.3	5.9
other	8.6	46.6	6.1	51.2	8.1	47.5
NA	17.5		18.8		17.8	
<b>Tot</b>	<b>100.0</b>		<b>100.0</b>		<b>100.0</b>	

Source: Nomisma VET2020 Survey

With regard to the Employers Survey, opportunities connected to quality and food safety represent the most important positive element for the future of the profession from the point of view of employment availability. Considering the first answer, more than 26.9% indicated this. This rises to 58.2% when considering multiple responses.

It must be noted that in this case, this opinion is shared practically to the same extent by employers in both the EU and Non EU Countries.

In second place, both for the first responses and for the multiple responses, are opportunities connected to Pets/Companion Animal (9.4% e 22.9%); following this are job opportunities connected to the spread of new diseases(7.1% e 21.7%).

In EU Countries, further opportunities are connected to the appearance of new diagnostic procedures (5.4% and 20.3%), environmental protection (2.4% and 18.6%) preventive medicine and surveillance (2.3% and 16.6%).

In the Non EU Countries, not to be forgotten, are new opportunities connected to entrance into the European Union (17.2% and 21.5%) which represent the second item cited in the list, and the general improvement of the economic situation with a consequent increase in demand (5.0% e 15.7%).

**Table 3.12 - Which are in your opinion, the most determinant changes by 2020 that will be represent major work opportunities for the veterinary profession?**

*Employers Survey - Question 4*

Countries	EU Countries -		Non Eu Countries -		All - 1st %	All - Multiple* %
	1st %	Multiple* %	1st %	Multiple* %		
opportunities related to the food quality & safety	26.4	57.1	29.6	63.6	26.9	58.2
opportunities related to the companion animals	10.5	24.1	3.4	16.6	9.4	22.9
spread of new/old diseases	6.7	23.0	9.3	14.6	7.1	21.7
opportunities related to the public health	6.6	14.5	0.0	10.7	5.5	13.9
new diagnostics/methods/technologies	5.4	20.3	0.0	5.6	4.6	17.9
Broader market (EU admission/enlargement, globalisation..)	0.8	3.7	17.2	21.5	3.4	6.5
opportunities related to the environment	2.4	18.6	6.5	15.5	3.1	18.1
preventive medicine/surveillance	2.3	16.6	3.4	10.9	2.5	15.7
opportunities related to the animal welfare	2.6	13.7	0.4	9.8	2.3	13.1
improvement of the economic situation/increase of the demand	1.4	2.3	5.0	15.7	2.0	4.4
new legislation	2.2	4.7	0.0	3.9	1.8	4.6
increasing demand of specialization	1.4	6.2	3.0	3.0	1.7	5.7
opportunities related to the exotic animals	1.8	5.4	0.0	3.0	1.5	5.0
opportunities related to the herd health	0.7	6.6	1.7	13.1	0.9	7.6
opportunities related to the research & development	0.6	4.8	0.0	3.0	0.5	4.5
changes in agriculture-breeding	0.4	4.3	0.0	2.3	0.3	4.0
other	14.8	62.0	10.5	47.1	14.1	59.6
NA	12.8		10.1		12.4	
<b>Tot</b>	<b>100.0</b>		<b>100.0</b>		<b>100.0</b>	

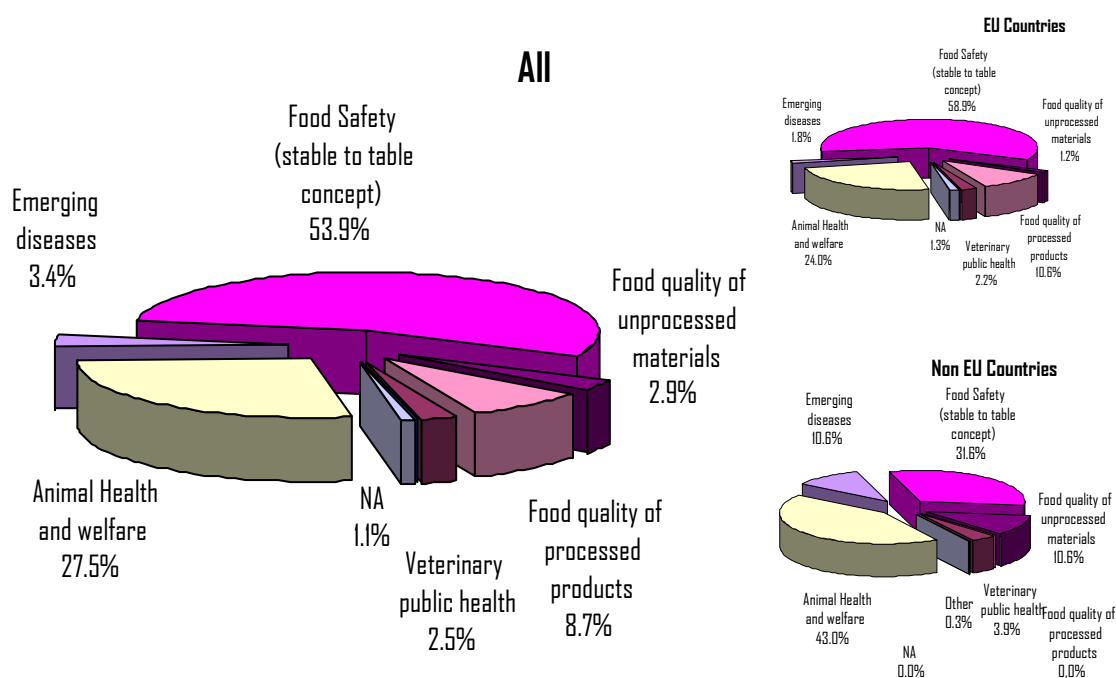
Source: Nomisma VET2020 Survey

With regard to the Consumers Organizations Survey, investigations were carried out with regard to sectors of activity, which, will help in increasing the importance of the role of the veterinarian in 2020.

Considering the first response, 53.9% believe that the role of the veterinarian will assume an increasing importance with regard to the field of food safety – the stable to table and fish to dish concepts. This is followed by Animal Health and Welfare (27.5%) and Food Quality of Processed Products (8.7%).

Graph 3.17 shows the presence of some differences between EU Countries and Non EU Countries; in fact, in European Union countries, more attention will be focused on Food Safety while in the Non EU Countries, attention will favour Animal Health and Welfare.

**Graph 3.17 – In which of the following sectors of activity do you expect a growth of importance of the veterinarians' role by 2002? - Single answer**  
*Consumer Organization Survey - Question 3*

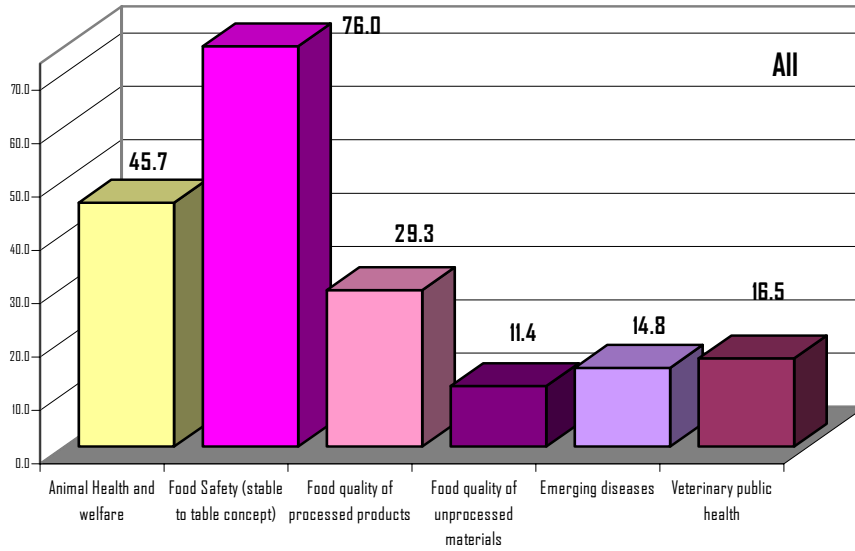


Source: Nomisma VET2020 Survey

Graph 3.18 illustrates results in relation to multiple responses.



**Graph 3.18- In which of the following sectors of activity do you expect a growth of importance of the veterinarians' role by 2020? - Multiple answer**  
*Consumer Organization Survey - Question 3*



Source: Nomisma VET2020 Survey



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# Chapter 4

## QUESTIONNAIRES



# Questionnaire

## Veterinarians survey

---

### VET 2020

*Development of European educational strategies: Design of veterinarian profiles identified by market needs for the year 2020*

## INFORMATION ON PRIVACY MEASURES

(Protective measures regarding the handling of personal data)

I authorise the use and processing of the data provided in this questionnaire for the sole purpose of providing information that will help identify the educational requirements Non EU with development of veterinary professions – Project VET2020.

We inform you that:

- The data are collected in order to elaborate statistics and conduct an analysis of the veterinary sector.
- The data collected through this questionnaire will be analysed for statistical purposes by means of automated systems in an anonymous and aggregated manner, and they will be disseminated only in this form.

Yes, I authorise

## GENERAL INSTRUCTIONS TO FILL IN THE GAPS

***When you are requested to add some information (e.g. Other Specify \_\_\_\_\_ or in open questions), PLEASE give short answers in CAPITAL LETTERS. You are also kindly requested to write in English.***



---

## Part 1 – RESPONDENT INFORMATION

**Respondent** \_\_\_\_\_

**Nationality** \_\_\_\_\_

**Country:**

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> Austria     | <input type="checkbox"/> Spain           |
| <input type="checkbox"/> Belgium     | <input type="checkbox"/> Sweden          |
| <input type="checkbox"/> Finland     | <input type="checkbox"/> United Kingdom  |
| <input type="checkbox"/> France      | <input type="checkbox"/> Czech Republic  |
| <input type="checkbox"/> Germany     | <input type="checkbox"/> Hungary         |
| <input type="checkbox"/> Greece      | <input type="checkbox"/> Norway          |
| <input type="checkbox"/> Ireland     | <input type="checkbox"/> Poland          |
| <input type="checkbox"/> Italy       | <input type="checkbox"/> Romania         |
| <input type="checkbox"/> Netherlands | <input type="checkbox"/> Slovak Republic |
| <input type="checkbox"/> Portugal    | <input type="checkbox"/> Slovenia        |

**Phone** \_\_\_\_\_ **Fax** \_\_\_\_\_

**E-mail** \_\_\_\_\_

**Gender:**     **Male**          
                  **Female**      

**Age** \_\_\_\_\_



## EDUCATIONAL QUALIFICATIONS AND EMPLOYMENT

### 1. Basic Qualification

---

*1a From which University did you graduate?*

\_\_\_\_\_ University

*1b Year of Graduation*

\_\_\_\_\_ Year

### 2. Additional qualifications - Did you obtain any additional educational qualification?

---

Yes  → question 2a

No  → question 3

*2a Could you describe the characteristics and the main topics of your post-graduate qualification?*

\_\_\_\_\_

### 3. Continuing Professional Development (CPD)- During the last three years did you attend any refresher courses?

---

Yes  → question 3a, 3b

No  → question 4

*3a How many CPD courses did you attend in the last three years?*

	1999	2000	2001
None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Only 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
From 2 to 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
More than 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*3b Which were the main topics of your CPD courses?*

\_\_\_\_\_

---

**4. Employment – After having obtained your degree, how long did it take to find a steady job in veterinary sector?**

---

- Within 2 months after graduation
- From two to six months
- From six months to one year
- From one year to two years
- More than two years

---

**5. Employment –How long do you feel it would take for a recent VET graduate to find NOWADAYS a steady job in your home country, in comparison to the time that it took you?**

---

- Present**
- Less time than me
- Same time than me
- More time than me
- I do not know

---

**6. Employment – How long do you feel it would take for a VET graduate to find a steady job in your home country in 2020?**

---

- In 2020**
- Less time than presently
- Same time than presently
- More time than presently
- I do not know

---

**7. Employment – Taking into consideration the employment situation at present and in the long-term future (2020), where would you have better opportunities to find a job?**

---

- |                       | <b>Present</b>           | <b>In 2020</b>           |
|-----------------------|--------------------------|--------------------------|
| In the public sector  | <input type="checkbox"/> | <input type="checkbox"/> |
| In the private sector | <input type="checkbox"/> | <input type="checkbox"/> |



---

**8. Employment – In your first three working years, how many vet related jobs did you have?**

---

Only 1

From 2 to 3

From 4 to 6

More than 6

---

**9. Employment – In your first three working years, what was the average duration of your jobs?**

---

Weeks  Specify the number of weeks \_\_\_\_\_

Months  Specify the number of months \_\_\_\_\_

Years  Specify the number of years \_\_\_\_\_

---

**10. Employment – In which countries were the above mentioned jobs undertaken?**

---

Always in my country

Both in my country and abroad  Specify in which countries \_\_\_\_\_

Always abroad  Specify in which countries \_\_\_\_\_

---

**11. Employment – In changing jobs, did you move between the private and public sectors or vice versa?**

---

From public sector to private sector

From private sector to public sector

Ever employed in public sector

Ever employed in private sector

---

**12. Current employment – In which sector are you employed?**

---

Public sector

Private sector





## PROFESSION

### 13. In which field is your current professional activity?

Only 1 answer - Indicate your main sector of activity by checking the large box

**Government**

(e.g., Ministries, legislators, central and regional veterinary administrators, responsible for public health or disease surveillance activities, etc.)

**Education and Research**

(e.g., academics and researchers)

**Private Veterinary Practice**

(e.g., companion animal practitioners, production animal practitioners, horse practitioners, etc.)

**Specify the sector of activity:**

Small Animals

Large Animals

Other Specify \_\_\_\_\_

**Industry and others**

(e.g., feedstuff industry, food industry, pharmaceutical industry, organic production, etc).

**Retired**

### 14. Profession – How many years have you been working as a Vet until now?

Full time \_\_\_\_\_ year(s)

Part time \_\_\_\_\_ year(s)

Career Break \_\_\_\_\_ month(s)

### 15. Profession – Considering your overall professional career, could you specify your experience in the mentioned sectors ?

*Specify 0 (zero) if you have no experience in a given sector*

SECTORS	Worked Years
Government	
Education and Research	
Private Veterinary Practice	
Industry and others	
<b>TOTAL YEARS</b>	



---

**16. How useful did you find the following professional training for your vet career development?**

*Evaluate each type of training you may have received, indicating a higher score (up to 10) for the most useful, and a lower score (down to 0) for the least useful*

**Education and training**

	MIN	MAX
Basic Qualification	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	
Internships, Residencies etc.	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	
Continuing Professional Development Courses	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	
Specialization courses	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	
Post Graduated Education (MSc, PhD etc.)	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	
Professional Experience	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	
Other Specify _____	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	

**Tools**

	MIN	MAX
Specialised journals	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	
Seminars, Congresses etc.	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	
Trade fairs	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	
Internet	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	
Other Specify _____	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	

**17. How useful do you think the following professional training will be for the VET career at 2020?**

*Evaluate each type of training that might be delivered, indicating a higher score (up to 10) for the most useful, and a lower score (down to 0) for the least useful.*

**Education and training**

	<b>MIN</b>	<b>MAX</b>
Basic Qualification	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	
Internships, Residencies etc.	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	
Continuing Professional Development	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	
Specialization courses	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	
Post Graduated Education (MSc, PhD etc.)	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	
Professional Experience	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	
Other Specify _____	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	

***Tools***

	<b>MIN</b>	<b>MAX</b>
Specialised journals	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	
Seminars, Congresses etc.	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	
Trade fairs	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	
Internet	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	
Other Specify _____	0- -1- -2- -3- -4- -5- -6- -7- -8- -9- -10	



## Part 2 – THE VETERINARY EDUCATION SYSTEM

### *Perceptions on strengths and weaknesses*

**18. Your evaluation of the efficiency of the veterinary training offered by the current university system in your country?**

---

Very efficient  → question 18a

Efficient  → question 18a

Not very efficient  → question 18b

Not efficient at all  → question 18b

**If very efficient or efficient, please answer question 18a**

18a In your opinion, which are the strengths of the current university system in your country?

*Up to 2 answers*

1 \_\_\_\_\_

2 \_\_\_\_\_

**If not very efficient or not efficient at all, please answer question 18b**

18b In your opinion, why is the current university system so inefficient?

*Up to 2 answers*

1 \_\_\_\_\_

2 \_\_\_\_\_

**19. How could the current vet schools in your country be improved?**

---

*Up to 2 answers*

1 \_\_\_\_\_

2 \_\_\_\_\_



**20. Considering the future requirements of the labour market in your country, which are the areas that in your opinion should be developed or better implemented within the curricula for veterinary medicine?**

*Maximum 3 answers to be assigned in order of importance; 1=max importance*

	Present	2020
	<i>Order</i>	<i>Order</i>
	<i>of importance</i>	<i>of importance</i>
Herd Health	_____	_____
Pets/Companion Animals	_____	_____
Sport Animals	_____	_____
Exotic Animals	_____	_____
Alternative Medicine	_____	_____
Food quality and safety	_____	_____
Public health	_____	_____
Animal breeding	_____	_____
Organic farming	_____	_____
Aquaculture/Fish farming	_____	_____
Epidemiology	_____	_____
Environmental protection	_____	_____
Experimentation on animals	_____	_____
Research and development	_____	_____
Animal Welfare	_____	_____
Other	Specify _____	_____
Other	Specify _____	_____
Other	Specify _____	_____



---

**21. In your opinion, how do recent graduate choose the main focus of their veterinary activity?**

*Only 1 answer – Choose only the most important factor*

- Considering the employment opportunities
- Following the traditional and well-established paths
- Suggestions from academic teachers
- Without any particular reason
- Other Specify \_\_\_\_\_

**22. In your opinion, which of the items below should be further developed during undergraduate veterinary training in order to face the new challenges emerging from the national and international context?**

*Express an evaluation and assign a mark for each item, considering that 10 represents the highest mark you can assign and 0 the lowest*

	MIN	MAX
Training for lifelong learning	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	
Broad competencies in different sectors of veterinary medicine	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	
Good knowledge of the health legislation/regulations	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	
Competence in other areas (marketing, economics..)	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	
Communication skills	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	
Ability to work in a team	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	
Deeper practical and clinical experience (electives, tracking, etc)	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	
Good knowledge of foreign languages	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	
Good information technology knowledge (computer, Internet)	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	
Mobility programmes - study and work abroad	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	
Other Specify _____	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	



### Part 3 –EMPLOYMENT PROSPECTS FOR THE VETERINARY PROFESSION

**23. According to your estimate, what will be the change in the number of employed vets in 2020 in your country?**

- No change
- Moderate increase (from 0 to + 10%)
- Sharp increase (from + 11% to + 20%)
- Moderate decrease (from 0 to - 10%)
- Sharp decrease (from - 11% to - 20%)

**24. According to your estimate, what will be the change in the number of employed vets in 2020 in your country in the following fields?**

	2020			
	Increase	Steady	Decrease	I do not know
Herd Health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pets/ Companion Animals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sport Animals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exotic Animals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative Medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Food quality and safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Animal breeding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organic farming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquaculture/Fish farming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Epidemiology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Experimentation on animals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Research and development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Animal Welfare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Specify _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



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**25. Which are, in your opinion, the main challenges and difficulties that the veterinary profession will face over the long-term future (2020) in your country?**

(e.g., Too many professionals compared to market needs?)

*Up to 5 answers, you are kindly requested to give as many answers as possible*

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_
- 5 \_\_\_\_\_

**26. Which are, in your opinion, the most determinant changes by 2020 that will represent major work opportunities for the veterinary profession?**

(e.g., Spread of new diseases?)

*Up to 5 answers, you are kindly requested to give as many answers as possible*

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_
- 5 \_\_\_\_\_





# Questionnaire

## Vet Organisations and Employers of veterinarians survey

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### VET 2020

*Developments of European educational strategies: Design of veterinarian profiles identified by market needs for the year 2020*

## INFORMATION ON PRIVACY MEASURES

(Protective measures regarding the handling of personal data)

I authorise the use and processing of the data provided in this questionnaire for the sole purpose of providing information that will help identify the educational requirements Non EU with development of veterinary professions – Project VET2020.

We inform you that:

- The data are collected in order to elaborate statistics and conduct an analysis of the veterinary sector.
- The data collected through this questionnaire will be analysed for statistical purposes by means of automated systems in an anonymous and aggregated manner, and they will be disseminated only in this form.

Yes, I authorise

### GENERAL INSTRUCTIONS TO FILL IN THE GAPS

***When you are requested to add some information (e.g. Other Specify \_\_\_\_\_ or in open questions), PLEASE give short answers in CAPITAL LETTERS. You are also kindly requested to write in English.***



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## Part 1 – RESPONDENT INFORMATION

Respondent \_\_\_\_\_

Company/Organisation \_\_\_\_\_

E mail \_\_\_\_\_

**Activity:**

Food industry

*Food Industry - Specify the sector of activity*

*cattle*

*dairy*

*pigs*

*poultry*

*sheep and goats*

*fish*

*other Specify* \_\_\_\_\_

Feed industry

Pharmaceutical Industry

Practitioners associations

Veterinary chambers or councils

Unions

Public Administration

Other  Specify \_\_\_\_\_

**Only for company:**

Year of Establishment \_\_\_\_\_

Size \_\_\_\_\_ Number of employees



**Only for Organisation:**

---

**Size** \_\_\_\_\_ **Number of associates**

**Country:**

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- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> Austria     | <input type="checkbox"/> Spain           |
| <input type="checkbox"/> Belgium     | <input type="checkbox"/> Sweden          |
| <input type="checkbox"/> Finland     | <input type="checkbox"/> United Kingdom  |
| <input type="checkbox"/> France      | <input type="checkbox"/> Czech Republic  |
| <input type="checkbox"/> Germany     | <input type="checkbox"/> Hungary         |
| <input type="checkbox"/> Greece      | <input type="checkbox"/> Norway          |
| <input type="checkbox"/> Ireland     | <input type="checkbox"/> Poland          |
| <input type="checkbox"/> Italy       | <input type="checkbox"/> Romania         |
| <input type="checkbox"/> Netherlands | <input type="checkbox"/> Slovak Republic |
| <input type="checkbox"/> Portugal    | <input type="checkbox"/> Slovenia        |



## Part 2 –EMPLOYMENT PROSPECTS FOR THE VETERINARY PROFESSION

1. According to your estimate, what will be the change in the number of employed vets in 2020 in your country?

- No change
- Moderate increase (from 0 to + 10%)
- Sharp increase (from + 11% to + 20%)
- Moderate decrease (from 0 to - 10%)
- Sharp decrease (from - 11% to - 20%)

2. According to your estimate, what will be the change in the number of employed vets in 2020 in your country in the following fields?

	2020			
	Increase	Steady	Decrease	I do not know
Herd Health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pets/ Companion Animals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sport Animals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exotic Animals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative Medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Food quality and safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Animal breeding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organic farming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquaculture/Fish farming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Epidemiology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Experimentation on animals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Research and development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Animal Welfare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Specify _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



**3. Which are, in your opinion, the main challenges and difficulties that the veterinary profession will face over the long-term future (2020) in your country?**

*(e.g., Too many professionals compared to market needs?) Up to 5 answers, you are kindly requested to give as many answers as possible*

1 \_\_\_\_\_  
 2 \_\_\_\_\_  
 3 \_\_\_\_\_  
 4 \_\_\_\_\_  
 5 \_\_\_\_\_

**4. Which are, in your opinion, the most determinant changes by 2020 that will represent major work opportunities for the veterinary profession?**

*(e.g., Spread of new diseases?) - Up to 5 answers, you are kindly requested to give as many answers as possible*

1 \_\_\_\_\_  
 2 \_\_\_\_\_  
 3 \_\_\_\_\_  
 4 \_\_\_\_\_  
 5 \_\_\_\_\_

**5. In your opinion, which of the items listed below should be further developed during the undergraduate veterinary training in order to face the new challenges emerging from the national and international context?**

*Express an evaluation and assign a mark for each item, considering that 10 represents the highest mark you can assign and 0 the lowest*

	MIN	MAX
Training for lifelong learning	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	
Broad competencies in different sectors of veterinary medicine	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	
Good knowledge of the health legislation/regulations	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	
Competence in other areas (marketing, economics..)	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	
Communication skills	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	
Ability to work in a team	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	
Deeper practical and clinical experience (electives, tracking, etc)	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	
Good knowledge of foreign languages	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	
Good information technology knowledge (computer, Internet)	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	
Mobility programmes - study and work abroad	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	
Other Specify _____	0 -1 -2 -3 -4 -5 -6 -7 -8 -9 -10	



---

**6. Are the professional services of private veterinarians used by the members of your organisation**

...

- Adequate
- Sufficiently adequate, with room for improvement
- Inadequate



# Questionnaire

## Consumer Organisations related to veterinary services

---

### VET 2020

*Developments of European educational strategies: Design of veterinarian profiles identified by market needs for the year 2020*





## INFORMATION ON PRIVACY MEASURES

(Protective measures regarding the handling of personal data)

I authorise the use and processing of the data provided in this questionnaire for the sole purpose of providing information that will help identify the educational requirements Non EU with development of veterinary professions – Project VET2020.

We inform you that:

- The data are collected in order to elaborate statistics and conduct an analysis of the veterinary sector.
- The data collected through this questionnaire will be analysed for statistical purposes by means of automated systems in an anonymous and aggregated manner, and they will be disseminated only in this form.

Yes, I authorise



## GENERAL INSTRUCTIONS TO FILL IN THE GAPS

***When you are requested to add some information (e.g. Other Specify \_\_\_\_\_ or in open questions), PLEASE give short answers in CAPITAL LETTERS. You are also kindly requested to write in English.***



**1. According to your organisation, what will be the change in the number of employed vets in 2020 in your country?**

- No change
- Moderate increase (from 0 to + 10%)
- Sharp increase (from + 11% to + 20%)
- Moderate decrease (from 0 to - 10%)
- Sharp decrease (from - 11% to - 20%)

**2. According your organisation, what changes will occur in the demand for veterinary services by 2020 in the following fields?**

	2020			
	Increase	Steady	Decrease	I do not know
Herd Health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pets/ Companion Animals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sport Animals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exotic Animals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative Medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Food quality and safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Animal breeding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organic farming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquaculture/Fish farming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Epidemiology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Experimentation on animals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Research and development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Animal Welfare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Specify _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



---

**3. In which of the following sectors of activity do you expect a growth of importance of the veterinarians' role by 2020?**

---

*Maximum 2 answers to be assigned in order of importance; 1= max. importance*

	Order of importance
Animal Health and welfare	_____
Food Safety (stable to table concept)	_____
Food quality of processed products	_____
Food quality of unprocessed materials	_____
Emerging diseases	_____
Veterinary Public Health	_____
Other Specify _____	_____

**4. Which are the main national and European laws of the last 3 years that are likely to influence the demand for veterinary services by 2020?**

---

*Up to 5 answers*

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_
- 5 \_\_\_\_\_

**5. Is the public veterinary service used by the members of your organisation ...**

---

- Adequate
- Sufficiently adequate, but with room for improvement
- Inadequate



---

**6. Are the professional services of private veterinarians used by the members of your organisation ...:**

---

Adequate

Sufficiently adequate, but with room for improvement

Inadequate

**7. How could the quality of the public veterinary service, provided to your organisation, be improved?**

---

*Up to 5 answers, you are kindly requested to give as many answers as possible*

1 \_\_\_\_\_

2 \_\_\_\_\_

3 \_\_\_\_\_

4 \_\_\_\_\_

5 \_\_\_\_\_

**8. How could the quality of the private veterinary service, provided to your organisation, be improved?**

---

*Up to 5 answers, you are kindly requested to give as many answers as possible*

1 \_\_\_\_\_

2 \_\_\_\_\_

3 \_\_\_\_\_

4 \_\_\_\_\_

5 \_\_\_\_\_