

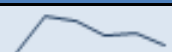
Careers in FST

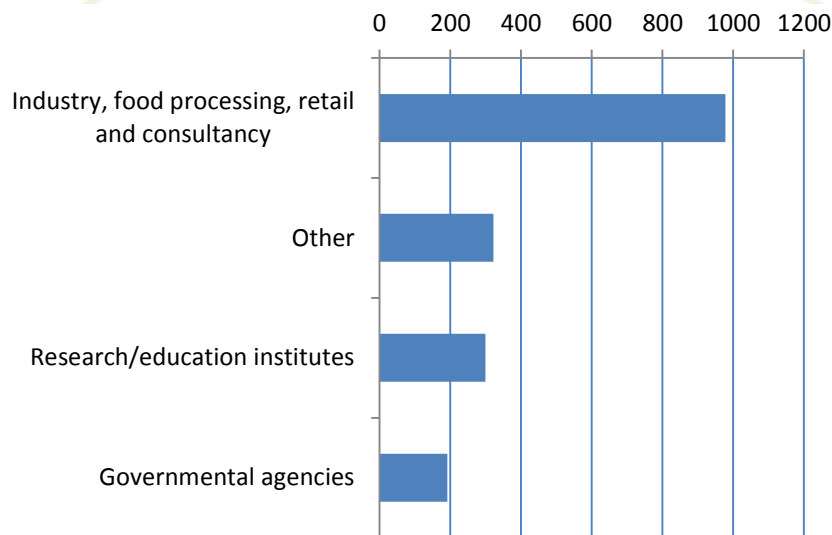
1. Survey to professionals
2. Search of regulated professions

Survey representativeness

Country	n. respondents that ended the survey	%	n of answers/10 ⁵ employees in the food industry
Austria	14	0.5	24
Belgium	40	1.3	45
France	149	5.0	31
Germany	42	1.4	8
Greece	147	4,9	213
Hungary	212	7.0	220
Italy	610	20.3	149
Lithuania	79	2.6	179
Portugal	309	10.3	283
Romania	111	3.7	63
Slovenia	98	3.3	737
Spain	410	13.6	89
Sweden	106	3.5	198
United Kingdom	69	2.3	18
Turkey	477	15.9	*416
unidentified	135	4.4	
TOTAL	3008	100	

Survey representativeness

Age range (years)	< 25	26-30	31-35	31-35 2	41-50	>50	plot
%	4.4	27.4	23.7	14.7	16.1	9.8	



	female/male ratio
EU	1.15
survey	1.49

Different qualification at 1st job

	BEL	FR	GER	GR	HUN	IT	LIT	PT	ROM	SLO	SPAIN	SWE	TUR	UK
Agriculture	17.1	15.3	10	7.7	12.5	5.9	5.6	5.4	15.4	7.8	38.9	15.4	3.7	9.1
Chemistry	11.4	2.1	10	24.9	4.2	0.9	11.1	4.8	8.7	3.9	3.8	26.2	0.7	13.6
Chemical engineering	11.4	4.7	6	16.6	3.1	2.2	11.1	1.6	7.4	11.8	3	9.2	2.2	9.1
Economic science	8.6	1.1	2	2.4	15.6	0.9	5.6	1.1	3.4	2	1.5	0	2.7	4.6
Environment engineering	2.9	1.1	0	3	0	0.4	0	1.6	2	0	0.9	3.1	0.3	13.6
Food Science Technology/ Engineering	22.9	34.7	36	27.2	39.6	72.5	50	46.5	31.5	47.1	21.8	21.5	51.8	31.8
Nutrition and health	0	10.5	10	0.6	2.1	3.7	0	8	4	5.9	8.6	7.7	6.8	0
Safety and hygiene	2.9	5.8	12	3	1	3.9	0	5.9	7.4	5.9	6.2	3.1	10.4	0
Management	5.7	4.2	6	5.3	4.2	2.6	5.6	3.2	7.4	2	6.5	0	5.7	9.1
Marketing science / Consumer behaviour	2.9	5.3	2	0	8.3	1.1	5.6	2.1	4	2	1.8	0	2.7	4.6
Sensory science	5.7	7.9	2	3.6	1	2.4	0	1.1	3.4	5.9	0.6	0	7	0
Other	8.6	7.4	4	5.9	8.3	3.5	5.6	18.7	5.4	5.9	6.5	13.9	6	4.6

Job functions



Career path

- Further qualifications
 - 2nd HE qualification mainly in the same field and in FST
 - companies invest mostly in training in Management, Safety and Hygiene and Marketing

Career path

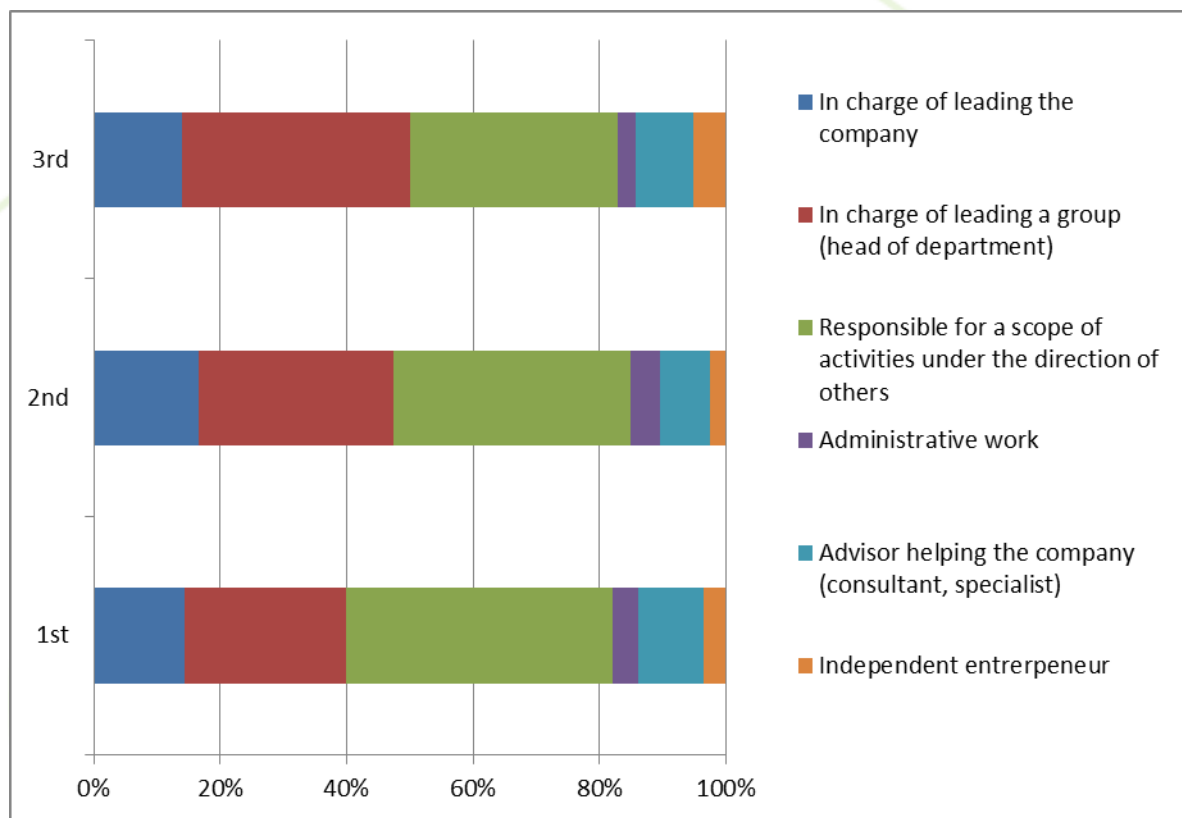
- Job changes

Cause	Change workplace		
	1 st - 2 nd	2 nd - 3 rd	3 rd - 4 th
Gaining experience	30.3	23.4	20.5
Higher correspondence to personal skills	30.0	22.8	17.4
Position improvement	10.4	20.6	23.0
Salary	8.8	11.2	12.3
Other	7.5	4.4	10.9
End of contract	4.4	8.1	6.5
Economic crisis	4.7	4.8	4.4
Personal conflicts	3.0	3.7	4.4
Dispreference (e.g. discrimination)	0.9	1.0	0.6

Career path

- Job-position change
 - **considerable rigidity between the sectors of employment**
 - Some tendency of respondents from other fields to pass **to the food industry**
 - No relation between the size of the employment company/organisation
 - **short time** in 1st position => **short time** in 2nd and 3rd position

Career path



Normalized % of respondents	
Male	female
65.3	34.7
54.9	45.1
41.9	58.1
46.5	53.5
49.1	50.9
62.1	37.9

Attractiveness

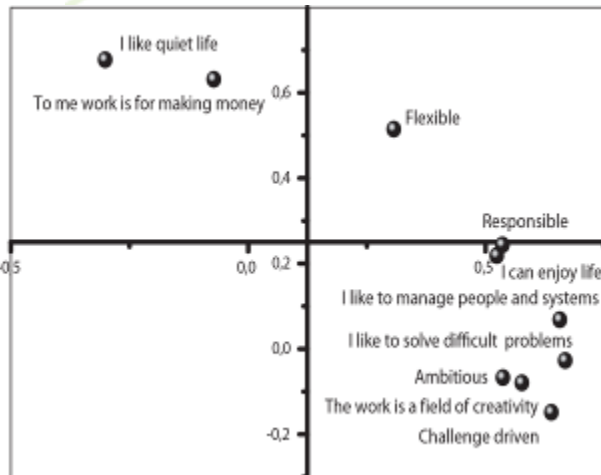
- Two clusters
 - related with regulation
 - for no regulated, related with past experiences
- More attractive for the older professionals

Competences











Cluster social skills 74%
Cluster technical skills 26%

Skills	Male	Female	Significant differences at 5%
Oral communication	4.00	4.05	
Written communication	4.10	4.21	*
Presentation skills	3.91	3.96	
English language	3.52	3.54	
Other languages	2.51	2.62	
Computer literacy	3.92	3.93	
Project management	3.85	3.77	
Group worker	4.10	4.24	*
Group leader	3.79	3.75	
Financial skills	3.14	2.90	*
Marketing & consumer knowledge	3.14	3.02	*
Statistical / mathematical skills	3.44	3.31	*

Personality characteristics



Cluster challenge driven is 31%
Cluster money driven is 69%

Personal characteristics	Age range						Average	Plot
	<25 (A)	26-30 (B)	31-35 (C)	36-40 (D)	41-50 (E)	>50 (F)		
Responsible	4.61	4.53	4.67	4.55	4.5	4.54	4.57	
I like to solve difficult technical/technological problems	4.12	4.08	4.19	4.33	4.28	4.07	4.18	
Flexible	4.12	4.08	4.14	4.08	4.04	3.99	4.08	
I can enjoy life	4.27	4.13	4.01	4.07	3.96	4.05	4.07	
The work is a field of creativity	3.83	3.84	3.94	3.95	4.02	4.15	3.94	
Challenge driven	3.99	3.87	3.95	4.02	4.05	4.04	3.97	
I like to manage people and systems	3.98	3.77	3.87	3.92	3.89	3.68	3.85	
Ambitious	3.88	3.85	3.81	3.63	3.73	3.61	3.76	
I like quiet life	3.48	3.43	3.5	3.38	3.33	3.11	3.4	
To me work is for making money	3.09	2.94	2.82	2.89	2.86	2.79	2.89	

Satisfaction

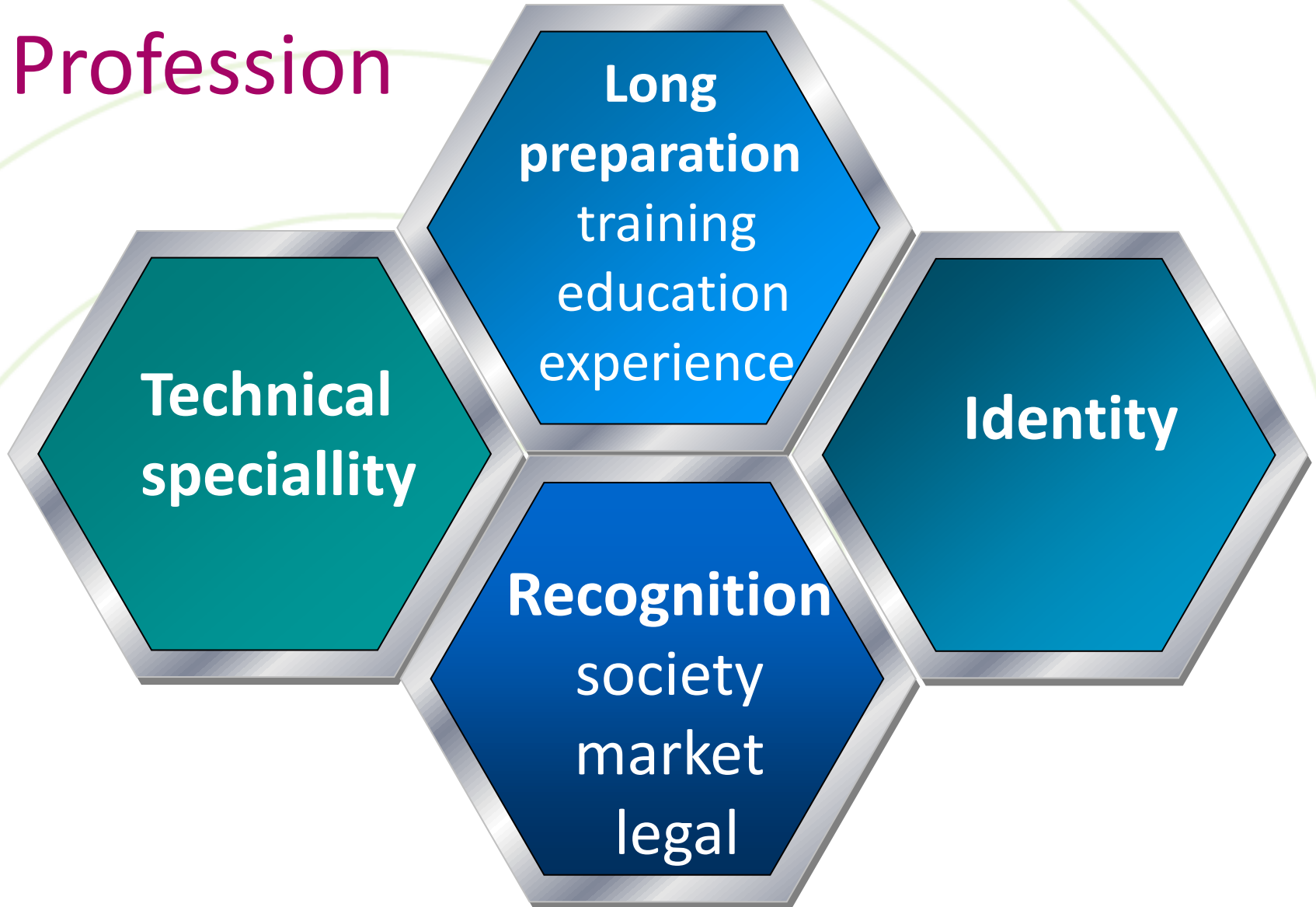
- More related with personality characteristics
- Less related with competences or past experiences or attractiveness
- Higher for the most optimistic country
- Lower for the countries with regulated professions

country	average of the 7 statements of satisfaction
LIT	4.3
BEL	4.0
GER	3.9
SLO	3.9
ROM	3.8
SWE	3.8
POR	3.8
HUN	3.7
GRE	3.7
FRA	3.7
UK	3.6
SPA	3.5
ITA	3.4
TUR	3.3

We are talking about professions..

What characterizes a profession?

Profession






The identity of the food profession is not clear

- Technical specialty: which one?

Education	Activity
Agriculture	Auditor
Chemical engineering	Biologist
Chemistry	Development engineer
Economic science	Food technology/engineer
Environmental engineering	Inspector
Food Science and Technology/Engineering	Laboratory manager
Management	Laboratory technician
Marketing science / Consumer behaviour	Other
Nutrition and health	Packaging developer
Other	Product developer
Safety and hygiene	Production manager
Sensory science	Project manager/leader
	Quality control engineer
	Quality manager
	Research assistant
	Research technician/researcher
	Statistician

The identity of the food profession is not clear

- Long preparation? **YES**
- Social recognition (society, market, legal)? **?**
- Identity?
 - Food profession is recent
 - only around 1950s appeared the first programmes in Food Science and Technology and in Food Engineering.
 - Linked to associations or orders/chambers
 - Professions with associations or orders/chambers usually have a longer past.
 - Heterogeneous picture in Europe

-  No regulated professions
-  Regulated professions (designation only)
-  Regulated professions



Promote FST professionals

1. Promote the activity of associations of professionals
2. Start with certification (asked by industry)
3. Improve the visibility of the profession, e.g., with the recognition by the **European Standard Classification of Occupations**
 - i. Food Quality and Safety
 - ii. New Food Product Development
 - iii. Food Industrial Production