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for Digital Jobs**

WP4 - Certification

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1 Introduction to the Deliverable and Scope

The outputs described in this deliverable outline the uptake of the European e-Competence Framework (e-CF) powered tool at national and European level. This deliverable is part of Work Package (WP) 4 – Certification. The main objective of WP4 – Certification is to strengthen the ICT professionalism, by promoting the e-CF in Europe.

This deliverable relates to task 4.3 which aims to:

- Accelerate the adoption of the e-CF through the CEPIS e-Competence Benchmark Tool,
- Allow ICT professionals/aspiring professionalism to identify the competences they need/lack for various ICT roles (using the e-CF) enabling them to adapt to market demand and communicate competences across borders,
- Work with partners to generate an update of the e-CF at national and EU level,
- Raise awareness of the e-CF,
- Promote and share the resulting data on usage to demonstrate the value of the e-CF.

This deliverable will be widely disseminated once approved among national and European stakeholders to show the real-world, practical application of the e-CF in action. It shows how ICT practitioners can identify the competences they need/lack for various ICT roles, enabling them to adapt to market labour demand and communicate their competences in a comparable manner across the EU.

2 Context

The increasing demand for ICT practitioners is hampered not only by the lack of new entrants into the profession, but also by the mismatches in the competences that practitioners have today. While ICT provides crisis-resistant employment, Europe currently is not producing the talent with the right skills to boost competitiveness. The ICT professional bodies and informatics societies that are the members of CEPIS recognise the need to reduce the gap between supply and demand and commit to taking action to redress the balance and promote ICT professionalism.

Under the Grand Coalition for Digital Jobs, the European Commission has launched a series of practical initiatives to help fill the growing number of vacant ICT-related jobs across Europe, and to ensure that more people get the training needed to work in the digital economy. To support the roll-out of the Grand Coalition for Digital Jobs, DIGITALEUROPE has collaborated with partners such as ECDL Foundation, CEPIS and others to establish the Secretariat of the Grand Coalition. This deliverable is part of the WP4 within the strategy of the Secretariat of the Grand Coalition.

The purpose of this deliverable is to present the national and European-level uptake of an e-CF powered tool, which is a free, online interactive tool for current and future ICT professionals to identify the competences they need for various ICT roles, enabling them to adapt to labour market demand. It will enable individuals and recruiters to map their competences against a range of profiles and better equip themselves for future roles and employment. It will allow companies to benchmark entire departments, identify workforce gaps and plan accordingly.

It is powered by the European e-Competence Framework (e-CF) the common language for ICT competences created by the CEN workshop on ICT skills and therefore provides a standard upon which Europeans can better understand what is needed for their current and future IT roles based on the ICT Professional Profiles developed by CEN.

Several national reports have been produced for each participating country which aggregate the information for that country and produce a snapshot of the ICT professional landscape. This report will provide information to support policy making, as well as update information for the training industry on market needs.

The European level report brings together all of the data from throughout Europe and provide a basis for policy recommendations on future actions to support the ongoing development of the ICT profession.

3 Executive summary

This report provides the Belgian results of a European initiative designed to identify the digital competences held by ICT professionals across 31 countries in Europe and beyond. This report is based on the CEPIS e-Competence Benchmark an online, interactive tool that enables individuals and organisations to assess their competences against the European e-Competence Framework (e-CF)¹. Using the results of the CEPIS e-Competence Benchmark, this report offers a unique view of the status of professional e-competence in Europe and shows the practical application and real-world usage of the e-CF.

As experts predict that the demand for skilled ICT professionals will far outstrip supply, it is more important than ever to provide current and future professionals with the ability to compare their competences against those needed for typical ICT job profiles throughout Europe. This helps identify training and professional development opportunities to transition to new roles and even to start an ICT career. This work was carried out as part of the Grand Coalition for Digital Jobs, an EU-wide initiative to address the competence mismatches and fill vacancies of ICT practitioners to boost employment.

The results gathered through this pan-European initiative provide an insight into the level of professional competences and a snapshot of the types of ICT professions in each country. It also is a means to implement the e-CF, demonstrating to individuals and organisations how it can be of immediate and practical benefit. The ability to determine which competencies are underdeveloped on a national and European scale can assist policy makers as well as training providers with timely information for decision making. This, in turn, can facilitate the development of focused training courses to further educate the workforce so as to meet the needs of the labour market.

The research has been conducted via an interactive, free, web-based tool that is powered solely by the European e-Competence Framework ([e-CF](#)) and the accompanying professional profiles. The e-CF has been developed by the CEN (European Committee for Standardization) Workshop on ICT Skills and is supported by the European Commission. This framework identifies 36 ICT competences which are all used in this tool along with the professional job profiles developed by CEN.

This project has been led by the Council of European Professional Informatics Societies (CEPIS) and implemented in conjunction with CEPIS members. Special thanks to the [Federation of Belgian Informatics Associations \(FBVI-FAIB\)](#) who led the project in Belgium.

¹ For more information about the European e-Competence Framework see: <http://www.ecompetences.eu/>

4 Methodology

This initiative has been conducted in 31 countries in Europe and beyond using an interactive, web-based tool: the [CEPIS e-Competence Benchmark](#). The European results are compiled based on over 2,000 responses provided by participants from these countries.

It is important to note that the results presented here reflect the constituency of those who participated in the CEPIS e-Competence Benchmark. In some countries that may have implications for the general statistical significance of the data. The CEPIS e-Competence Benchmark has been completed by individual respondents who consider themselves to be ICT practitioners, or who will soon become one, and is divided into three sections as described below. It is fully compatible with and is based on the e-CF and associated professional profiles.

4.1 Personal Information

In the online tool, each respondent is invited to register and then enter personal information including education background, employment status, organisation size, and industry. They then select the ICT profile that matches their current role from the following 23 professional profiles, grouped into 6 families:²

BUSINESS MANAGEMENT	Chief Information Officer Business Information Manager ICT Operations Manager	DESIGN	Business Analyst Systems Analyst Enterprise Architect Systems Architect
SUPPORT	Account Manager ICT Trainer ICT Security Specialist ICT Consultant	DEVELOPMENT	Developer Digital Media Specialist Test Specialist
SERVICE & OPERATIONS	Database Administrator Systems Administrator Network Specialist Technical Specialist Service Desk Agent ³	TECHNICAL MANAGEMENT	Quality Assurance Manager ICT Security Manager Project Manager Service Manager

Figure 1 ICT Professional Profiles

4.2 Competence Questionnaire

In this section of the assessment, the respondent completes the competence questionnaire, which consists of 36 competences. The questionnaire is divided in five areas of competences - Plan, Build, Run, Enable, Manage - that are derived from ICT business processes.

For each competence, the level options available are: None, Knowledge, Experience, or Knowledge and Experience. Upon selecting 'Experience' the respondent is asked to indicate their corresponding level of experience. Additional information, such as

² For more information on the professional profiles : <http://ftp.cen.eu/CEN/Sectors/List/ICT/CWAs/CWA%2016458.pdf>

³ The profile of *Service Desk Agent* is excluded from the present analysis as the profile was sufficiently broad to encompass most respondents, thus skewing the results.

examples of the knowledge and skills associated with that competence, is also available to assist the respondent in choosing an appropriate level.

B-Build	None	Knowledge	Experience	Knowledge & Experience
B.1. Design and Development Designs and engineers software and/or hardware components to meet required specifications, including energy efficiency issues. Follows a systematic methodology to analyse and build the required components and interfaces. Performs unit and system testing to ensure requirements are met.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Please select all currently relevant experience levels (select one or more as required)				
Level 2 Systematically develops small components.	Level 3 Acts creatively to develop and integrate components into a larger product.	Level 4 Handles complexity by developing standard procedures and architectures in support of cohesive product development.	Level 5 Has ultimate responsibility for strategic direction of product, technical architecture or technology development.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
OK				
B.2. Systems Integration Installs additional hardware, software or sub system components into an existing or proposed system. Complies with established processes and procedures (e.g. configuration management), taking into account the specification, capacity and compatibility of existing and new modules to ensure integrity and interoperability. Verifies system performance and	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 2 Example of Competence Level and Experience Level

4.3 Competence Questionnaire

Upon completion of the questionnaire, the respondent is presented with personal results. These results are displayed on a graphical radar, split into 36 segments (one for each competence) as illustrated in [Figure 3](#). The graphic will show which of the 23 ICT professional profiles best matches the respondent's e-competences, regardless of the profile the respondent selected.

The results are represented in a proximity index which gives an indication of how the respondent's competences match the requirements of the specific job profile (see [Figure 4](#)). A high proximity index indicates that the respondent has the necessary competences for this role.

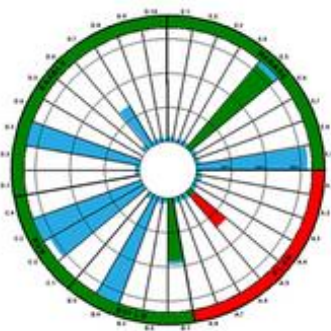


Figure 3 Personal Results: the 'Radar'

View report	Your proximity to this profile	View e-CF profile
 SYSTEMS ANALYST	84.75 %	
 ICT TRAINER	76.47 %	
 TECHNICAL SPECIALIST	59.09 %	
 DIGITAL MEDIA SPECIALIST	51.43 %	

Figure 4 Personal Results: Proximity Index

Moreover, the results also indicate the competences that the individual should seek to improve, as well as the competences that exceed the level required for the given profile.

Each respondent can review their proximity to any other professional profile to assess their potential to move into a new role, and export the results into a report that may be printed.

4.4 Proximity Profiles

The Proximity Profile is used to identify and classify respondents into homogeneous groups in terms of specific skills (professional profile).

The CEPIS e-Competence Benchmark uses the 23 professional profiles as defined by the CEN Workshop on ICT skills. Each profile is characterised by a specific set of competences (ranging from two to five competences) selected from the 36 competences identified and described in the e-CF.

An algorithm produces a score, based on the knowledge and experience reported, for each of the 23 profiles. These scores are then compared with what is required for each profile and expressed as a percentage match. The highest score shows the profile(s) that is closest to the expertise of the respondent. This is referred to as the Proximity Profile. The level of proximity is shown as a percentage: a 100% proximity index means that the competence declared by the respondent completely satisfies the requirements for that profile.

4.5 Competence Proficiency Index

The Competence Proficiency Index (CPI) is used to measure the degree to which the competencies identified by the e-CF framework are represented in Europe today.

On the basis of the respondents' declaration of competence, a Competence Proficiency Index is computed for each of the 36 competence identified in the e-CF. This index, expressed as a percentage, represents the degree of proficiency for each competence with respect to the e-CF. So, a 100% Competence Proficiency Index means that the respondent declared to have relevant experience at each one of proposed levels of competence.

The analysis of the Competence Proficiency Index of each competence can be useful to design detailed training paths to cover the competence gaps.

4.6 Criteria for Inclusion and Country Level Analysis

In order to ensure the integrity of the results, certain criteria for inclusion of the results were established at the level of the individual response as well as at the country level.

The criteria for individual responses were established so as to exclude responses that are incomplete, or completed in a manner that is implausible. Implausible

responses include those that for example have the highest level of knowledge and experience in all competences. Responses that do not comply with the established criteria have been excluded from the results.

The data validation ensures that only results meeting the following criteria are included:

- knowledge of 5 or more competences,
- experience in no more than 31 competences,
- Proximity Profile score(s) of at least 40%,
- ex-aequo⁴ top score in 5 profiles or less.

With the high number of participating countries, it was necessary to decide upon the baseline criteria to ensure that the volume and the quality of responses were suitable for country level analysis. The following criteria were adopted to ensure the integrity of the country reports:

- a competence profile is included when 10 or more valid questionnaires are completed. In other words a cluster of 10 respondents enables a professional profile to be analysed for that country,
- a country profile can be generated where there are more than 50 valid assessments completed, and at least one competence profile has 10 or more valid assessments.

4.7 The European Benchmark

All country results are compared to the European benchmark, sometimes also referred to as European average. In order to avoid distortions due to a higher number of contributions from certain countries, the European benchmark has been computed as a weighted mean, taking into account an equal number of contributions from those countries which, although in varying degrees, have proved to be the major contributors.

⁴ Assessments which show the same proximity score for more than one profile are counted as many times as the same score appears.

5 Respondent Demographics

The research was launched across 31 countries in Europe and beyond. Over 2,000 current and future ICT practitioners participated in the research.

This chapter provides an overview of the demographics of Belgian respondents. Thanks to the Federation of Belgian Informatics Associations (FBVI-FAIB) 206 respondents were assessed using the CEPIS e-Competence Benchmark, which resulted in 9 professional profiles qualifying for analysis.

5.1 Respondents by Age

The Belgian respondents represented a range of age groups as highlighted in [Figure 5](#)⁵. The average age of respondents in Belgium is around 37 years, which makes them the youngest ICT professionals among the countries surveyed as they are five years younger than the European average.

As shown in [Figure 5](#), the percentage of the under 30 segment is very high, close to 40% of all respondents, while all the other segments are lower than the European average. The Developer is the youngest profile with an average of 29 years, while the Project Manager profile is the oldest (44 years). However, in Belgium both are still younger than their European counterparts.

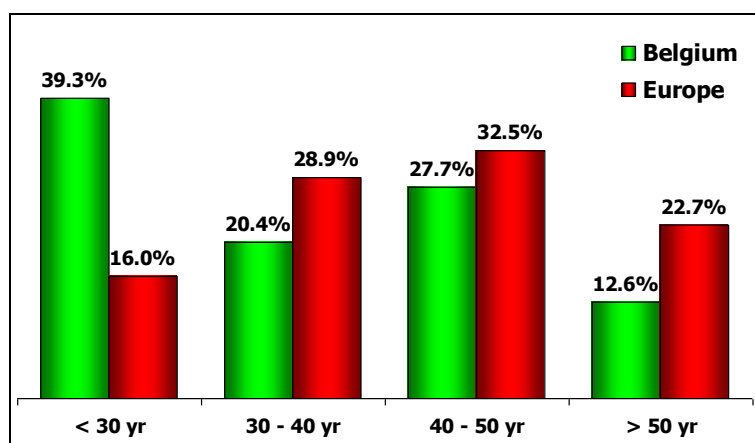


Figure 5 Respondents Distribution by Age

5.2 Respondents by Gender

The gender results show that there is still a large degree of gender imbalance in the ICT sector; in fact, the comparative analysis in [Figure 6](#) shows that Belgium is lagging behind even the low European average in the sample. Women in Belgium represent only 10% of ICT professionals, while the European average is a meagre

⁵ Note: as '<20 yr' and '>60 yr' classes count for a low % of total assessments (respectively <1% and about 5%), they have been grouped into the adjacent class. As a result, only four age classes are shown: '<30 yr', '31-40 yr', '41-50 yr', and '>50 yr'.

15%. Among all countries taking part in the research and eligible for analysis, Belgium shows the lowest rate of female presence.

A higher representation of female ICT professionals is found among ICT Trainers (31%), Project Managers (25%), and Business Analysts (24%), but none at all among Database Administrators in Belgium. A lower percentage than the average is found among Systems Administrators (8%).

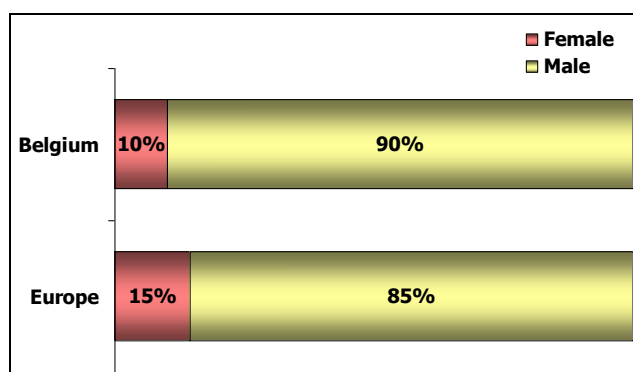


Figure 6 Respondents Distribution by Gender

5.3 Respondents by Education Level

The respondents were asked to select the highest level of education that they had achieved. The majority of the respondents in Belgium (89%) have at least a degree level qualification, showing the importance of third level qualifications in gaining employment in this sector. Moreover, the Belgian rate of 89% is slightly higher than other European countries, which average at 86%. 40% of Belgian ICT professionals obtained a fourth level qualification (master's degree or PhD), which is the same average rate as in Europe.

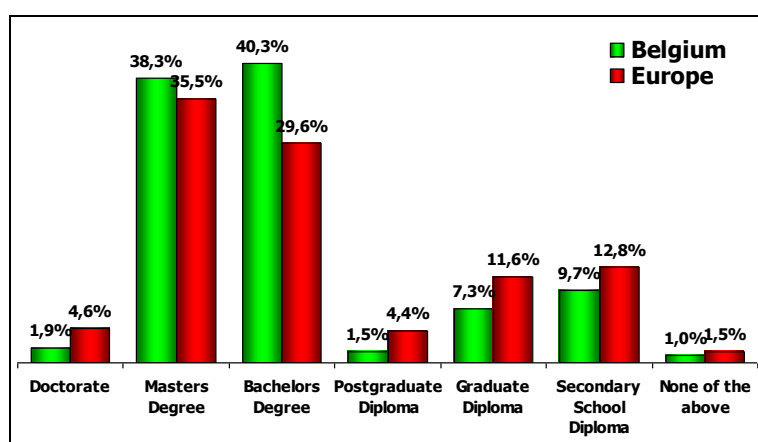


Figure 7 Respondents Distribution by Education Level

There are five ICT profiles for which the level of education is substantially higher than the general Belgian average: Digital Media Specialist (93% graduated), ICT Trainer (93%), Business Analyst (94%), Project Manager (94%), and Systems Administrator (where all respondents are graduates). A different situation appears for Developer (76%), Database Administrator (80%), Systems Analyst (86%), and Technical

Specialist (91%). It is worth mentioning that Business Analyst (65%) and Project Manager (81%) show a high rate of master's/PhD degrees, while Systems Administrator (17%) and Database Administrator (20%) show a rate only half that of the average of Belgian ICT professionals (40%).

5.4 Respondents by Educational Field

The wide range of educational backgrounds of ICT practitioners points to the fact that the ICT profession is both attractive and accessible to graduates from different faculties. Two out of three respondents have an IT-focused background. This means that one third of Belgian and European professionals have an education in which IT was either a side subject or not significant in their studies.

In almost all Belgian profiles a prevalence of IT-focused education appears in particular for Database Administrator (93%), Digital Media Specialist (86%), and Systems Administrator (83%). Particularly low rates of IT-focused education are evident for in two profiles; only 45% for ICT Trainer and only 31% for Project Manager.

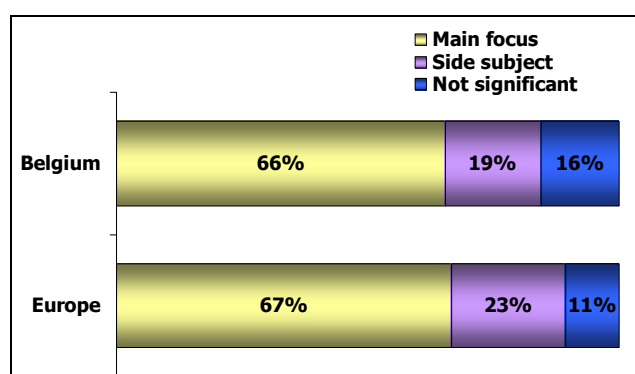


Figure 8 Respondents Distribution by Educational Field

5.5 Respondents by Industry Sector

About half of the Belgian respondents come from the IT demand side, as is the case across the whole of Europe: the average is 49% for respondents focused on IT demand side activities. Many profiles are focused mainly on the IT demand side: the highest rate is found for Business Analyst (53%) and Developer (52%). Belgian data shows that the profile most strongly focused on the IT supply side, with a higher rate than the European average is Database Administrator (with a rate of 33%, compared to 47% European average).

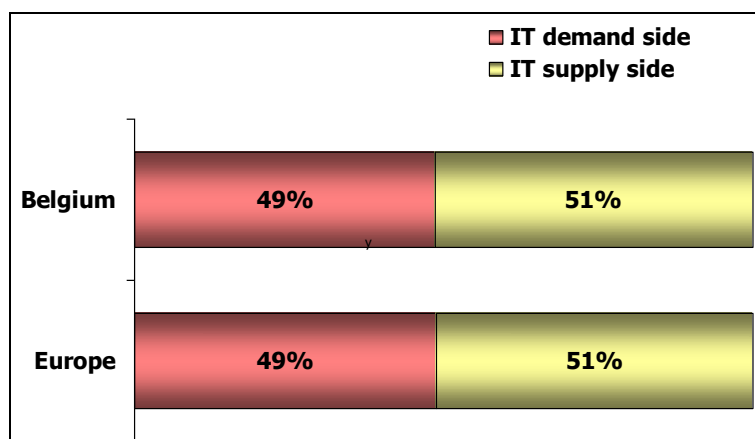


Figure 9 Respondents Distribution by Industry Sector

5.6 Respondents by Enterprise Size

The distribution of respondents by organisation size shows a preference for larger enterprises. The rate of respondents in micro or small enterprises is 18%, while 41% work in larger companies. The European average shows a similar situation: 24% of respondents work in micro/small enterprises and 36% work in large organisations with more than 1,000 employees.

A number of profiles are more prevalent in large organisations (+1000 employees), these include: Systems Analyst (67%), Project Manager (64%), Digital Media Specialist, and Developer (60% each). On the other hand, Technical Specialists (27%) are more concentrated in micro/small organisations.

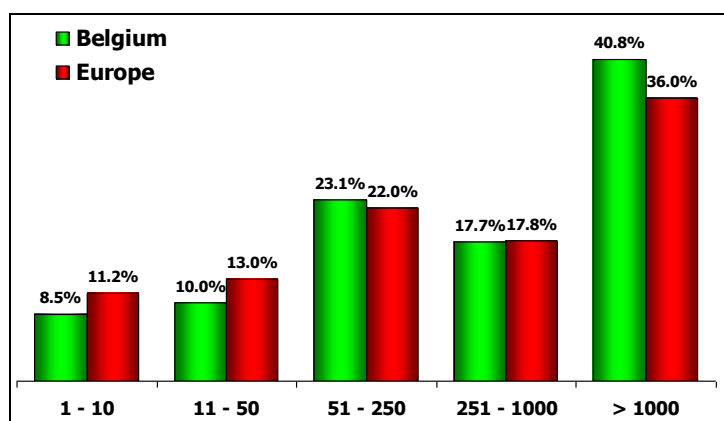


Figure 10 Respondents Distribution by Enterprise Size

5.7 Respondents by Professional Status

A narrow majority of Belgian respondents hold full time positions⁶ (56%, the lowest rate among surveyed countries), which is substantially lower than the European average of 78%. Moreover, there are noticeable features concerning some profiles. For example, more than half of the Belgian respondents fall in the Student/

⁶ Note: as 'Full time employee' choice counts 80% of total assessments, the other items were grouped as follow: 'Part time employee / Self-employed' and 'Student / Unemployed / Retired'

Unemployed/ Retired category in four profiles: Systems Analyst (50%), Database Administrator (60%), Digital Media Specialist (64%), and Developers (71%). A high rate of self-employed professionals appears for two profiles: Business Analyst (18%) and Project Manager (19%); both almost double that of the Belgian average (10%) and higher than the corresponding European average (12% each).

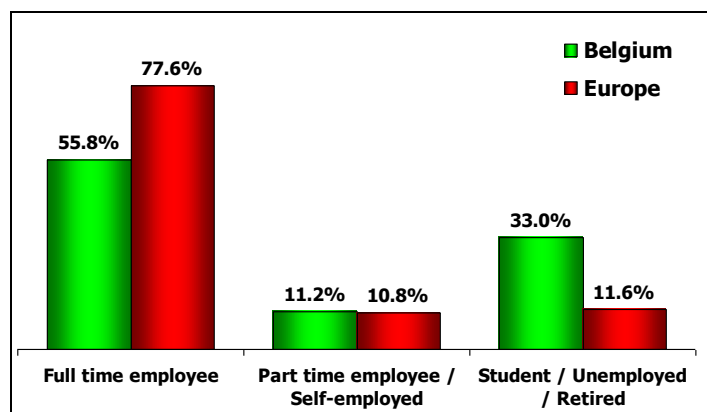


Figure 11 Respondents Distribution by Professional Status

5.8 Respondents by Declared ICT Profile

[Figure 12](#) shows the distribution of ICT profiles chosen by the respondents during registration (before starting the assessment). This subjective point of view is based on their experience and the actual role they hold. It differs from the Proximity Profile as explained in chapter 1.4.

All 23 ICT profiles were selected to a certain extent, but twelve profiles were chosen by 3% or less: Systems Analyst, Enterprise Architect, Systems Architect, Digital Media Specialist, Test Specialist, ICT Trainer, Database Administrator, Technical Specialist, Service Desk Agent, Quality Assurance Manager, ICT Security Manager, and Service Manager.

Only two of the Belgian self-declared profiles had a noticeable variance (which is $\pm 5\%$) compared to the respondent rate of their European colleagues: the Technical Specialist profile was chosen by 1.5% of Belgians, while across Europe the rate was 6.9%; and the Developer profile was chosen by 17% of Belgians, but only by 11.2% of European ICT professionals.

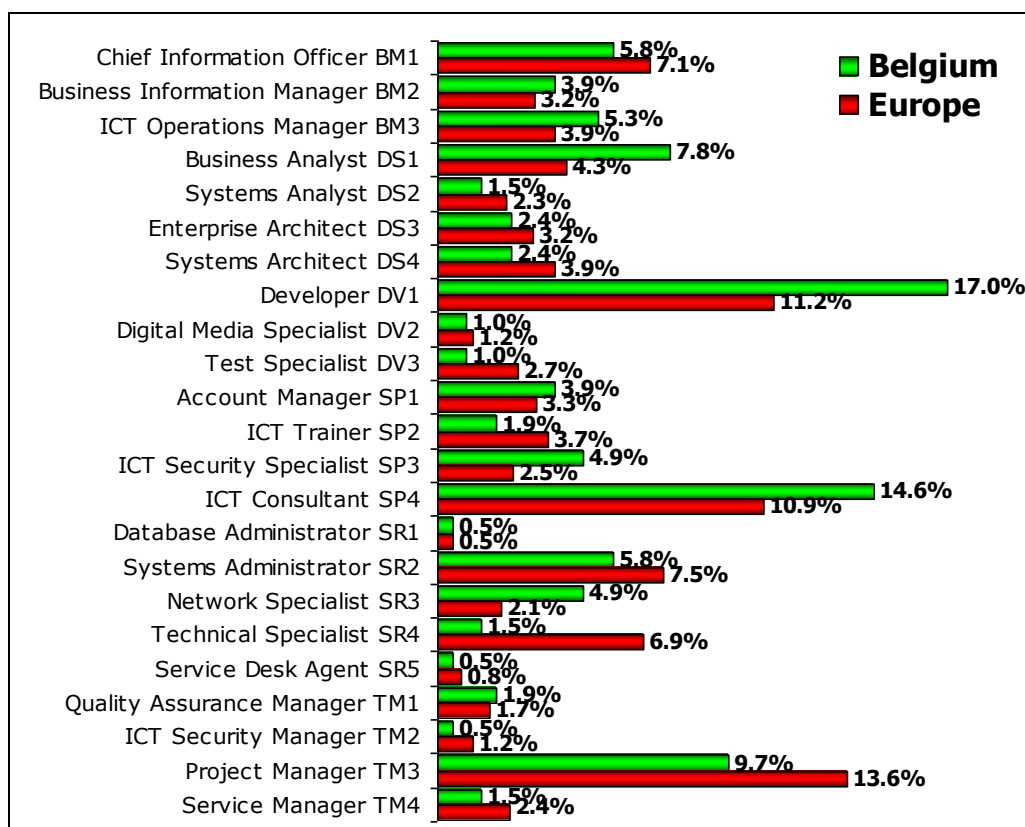


Figure 12 Respondents Distribution by ICT Profile

6 Proximity Profiles and Competences

6.1 Respondents by Proximity Profile

Based on the calculated Proximity Profiles, we can see a picture emerge of ICT profiles from the competences declared by the Belgian respondents.

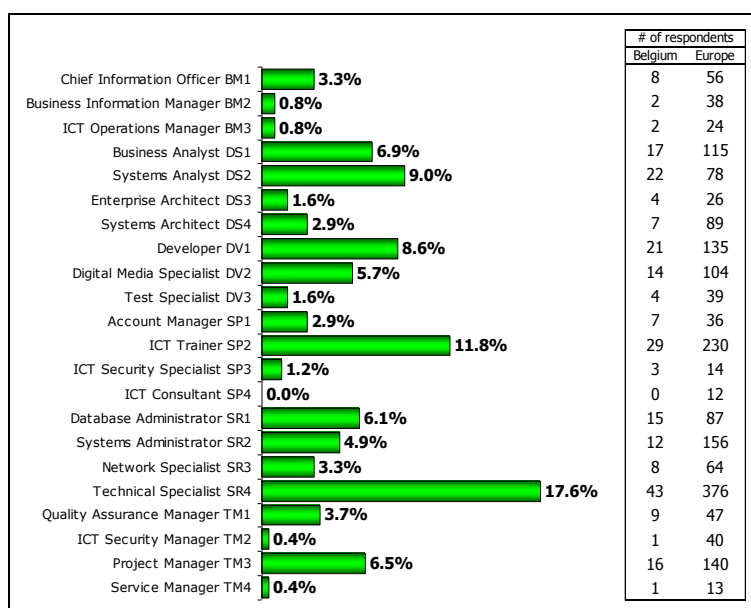


Figure 13 Respondents Distribution by Proximity Profile

A high rate of respondents fit the roles of Technical Specialist, ICT Trainer, Systems Analyst and Developer. However, the Technical Specialist profile shows a lower rate of proximity compared with the European average (17.6% vs. 19.6%). As regards the Developer and the ICT Trainer profiles, Belgium results are similar to the European ones (8.6% vs. 7.0% for Developer, 11.8% vs. 12.0% for ICT Trainer). Conversely, the Systems Analyst rate results are more than double compared to the European average (9.0% vs. 4.1%), the highest percentage for this profile among European countries. Another remarkable difference between Belgium and the European average relates to the profile of Systems Administrator (Belgium 4.9%, compared with a European average of 8.1%).

6.2 Comparison between Professional Profile and Proximity Profile

An analysis of the profile selected by ICT practitioners and the Proximity Profile i.e. the profile that fits best with the competences that were declared shows a large variance for many of the profiles in the case of Belgium.

As can be seen from [Figure 14](#), the Technical Specialist profile is a declared profile for only 1% of the respondents in Belgium, but an analysis of their competences leads to 21% of all practitioners having the necessary competences for that role. This trend, although with a slightly smaller gap, is replicated across Europe, as seen in

[Figure 14](#), where only 7% of European respondents declared to be Technical Specialist, but 23% of practitioners had the required competences for this role.

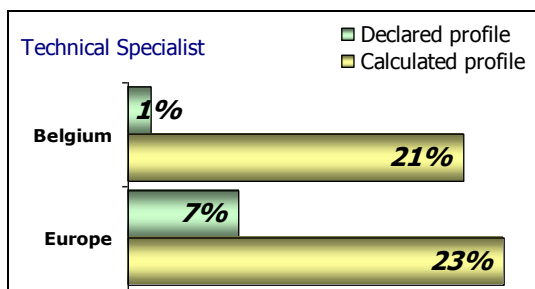


Figure 14 Technical Specialist: Declared and Calculated Profile

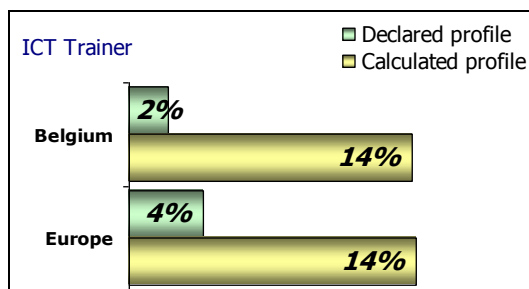


Figure 15 ICT Trainer: Declared and Calculated Profile

In Belgium, this case is also noticeable with ICT Trainers. Only 2% of Belgian respondents declared this profile, but 14% of all respondents in Belgium actually hold the necessary competences for this role. This trend is replicated across Europe, as seen in [Figure 15](#), where 4% of European respondents declared they were ICT Trainers, but 14% of all practitioners held the required competences.

Again, for the Database Administrator profile, the results show that only 0.5% declared the profile, but 7.3% were seen to have the competences associated with it after their evaluation. As [Figure 16](#) reveals, the same situation appears across Europe, although with a smaller gap: only 0.5% declare to be a Systems Administrator, but 5.4% of all respondents have the competences for this role.

A different situation emerges for the ICT Consultant profile: 15% of Belgian ICT practitioners declare themselves to be ICT Consultants, but none have the required competences. The same trend is observed at European level: 11% claim to be ICT Consultants, but only 1% have the appropriate competences (see [Figure 17](#)).

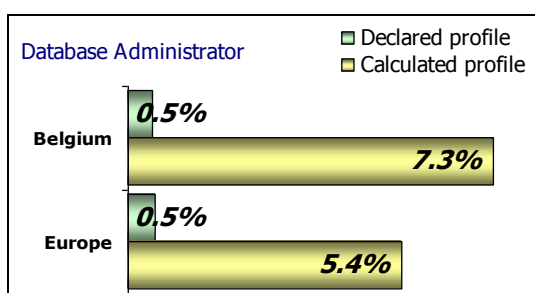


Figure 16 Database Administrator: Declared and Calculated Profile

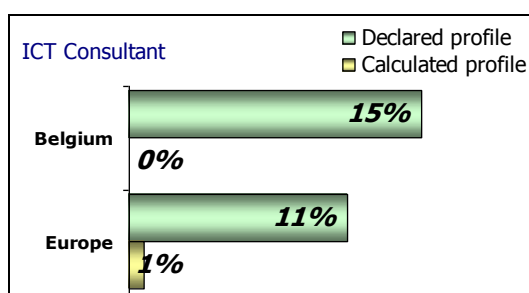


Figure 17 ICT Consultant: Declared and Calculated Profile

In general, the difference between the declared and the calculated professional profile highlights the importance of the level of competence granularity for each profile. The Proximity Profiles are created on the basis of the competences (and their proficiency levels) as self-assessed by respondents, and combined with an appropriate algorithm that calculates the Proximity Profile. In contrast, the declared profiles are simply selected by the respondent according to the job title they hold.

The declared profiles can differ greatly from the calculated profile as a result. Only 23% of the declared profiles of Belgian respondents match the calculated profile (23% is also the European average).

For this reason, only the data from the calculated profiles is used for analysis: the calculated profile is a more precise profile.

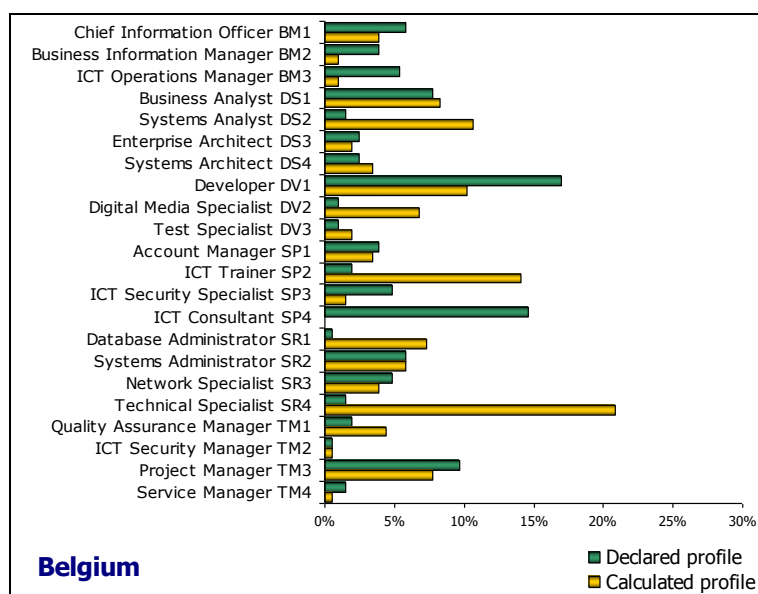


Figure 18 Comparison of Declared Profile and Proximity Profile

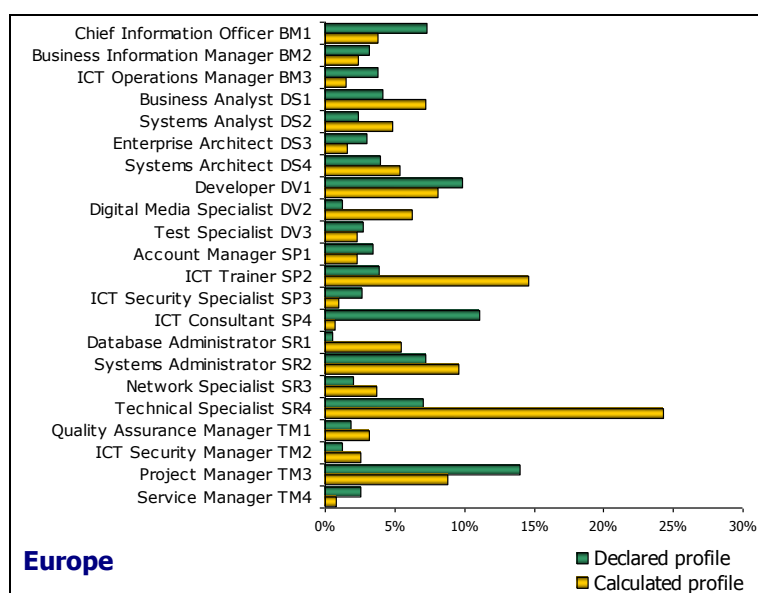


Figure 19 Comparison of Declared Profile and Proximity Profile

6.3 Analysis of Competence Proficiency Index

[Figure 20](#) below provides a comparison of the Belgian and European averages of the Competence Proficiency Index (CPI) for the five competence areas: Plan, Build, Run, Enable, and Manage.

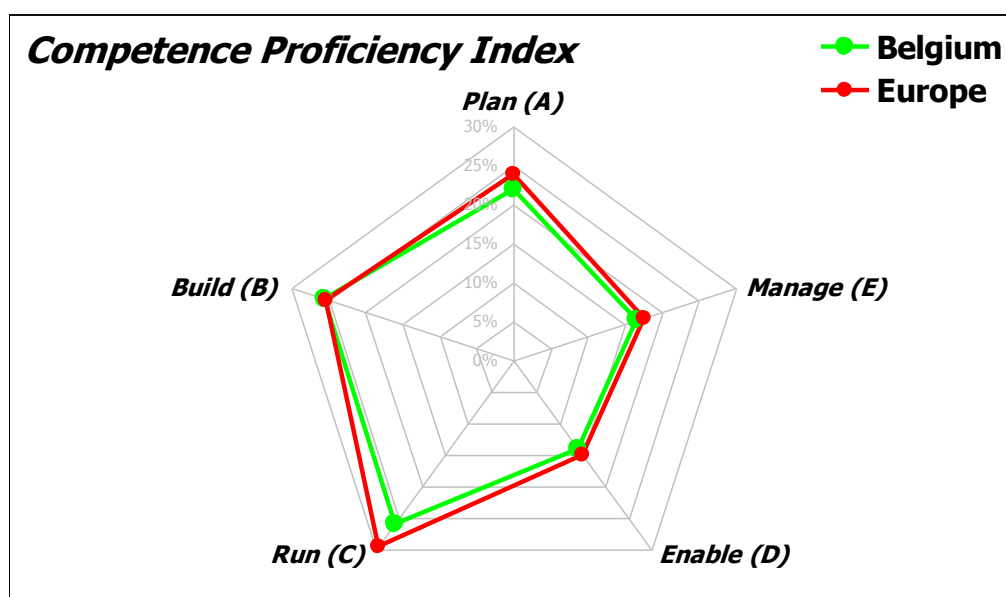


Figure 20 Comparison of Declared Profile and Proximity Profile

In Belgium, it appears that the Competence Proficiency Index is slightly higher than the equivalent for Europe only in the Build area and lower for the others. The full value of each CPI is 100%. Other minor differences, compared with the European average, appear to be in the Run area (25.9% vs. 29.4%) and in the Plan area (21.8% vs. 23.9%).

However, it appears that the Enable and Manage areas are the weakest, both for Belgium and Europe. The profile that has the highest CPI in the Plan area is Chief Information Officer; in the Build area the highest CPI is reached by the Developer, while in the Run area the leading profile is the Technical Specialist. As regards the Enable area, the best score belongs to ICT Trainer. The Project Manager profile gains the top score in the Manage area.

A deeper analysis of the Competence Proficiency Indexes of each competence area is fundamental in order to design detailed training paths to cover the competence gaps for each Proximity Profile of each respondent.

The following chart ([Figure 21](#)) shows the average CPI for all Belgian respondents.

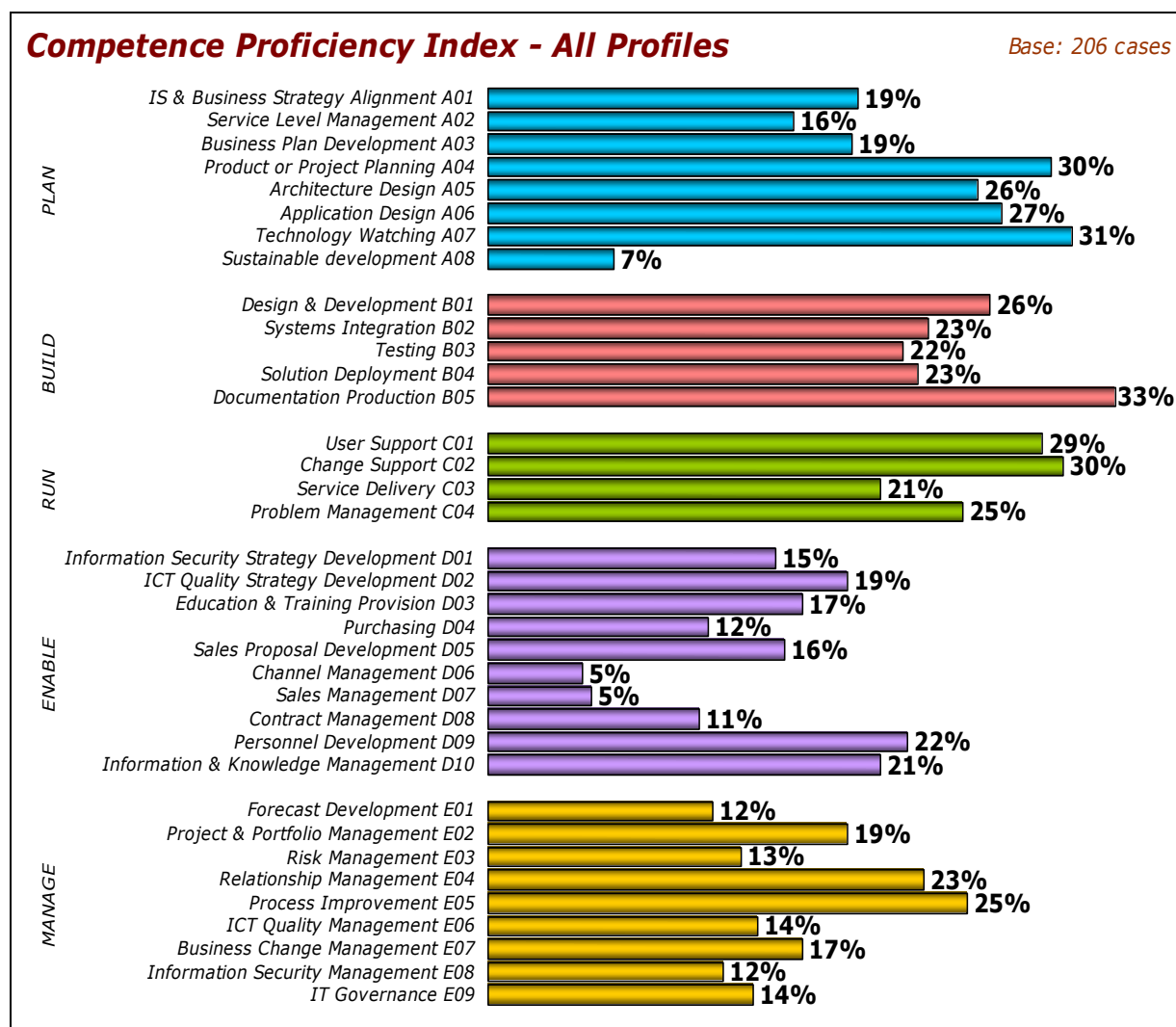


Figure 21 Competence Proficiency Index

7 Profiles Analysis

The answers collected generated 245 Proximity Profiles in relation to 22 ICT professional profiles ([Figure 13](#))⁷. The eligibility criteria for the analysis of these profiles were the following:

- 10 or more cases per country for each profile,
- a Proximity Profile score higher than 40%.

Following this criteria, the following 9 profiles for Belgium were selected and analysed:

1. Business Analyst
2. Systems Analyst
3. Developer
4. Digital Media Specialist
5. ICT Trainer
6. Database Administrator
7. Systems Administrator
8. Technical Specialist
9. Project Manager

A deeper analysis of the data for each of these 9 profiles is presented in this chapter.

7.1 Business Analyst

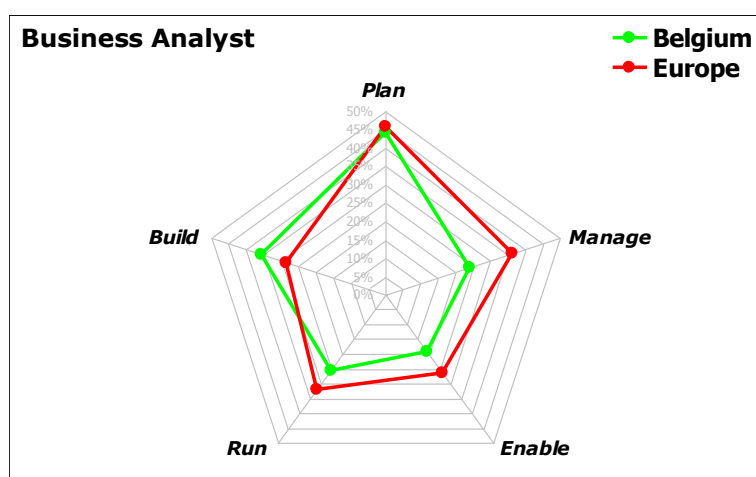


Figure 22 Competence Proficiency Index – Business Analyst

94% of Belgian Business Analysts have obtained a university degree or higher in line with the European average of 93%. When it comes to fourth level education, the difference is slightly more noticeable: 65% of Belgian Business Analysts have obtained a master's degree or PhD, while the European average is 60%. Business

⁷ The profile of *Service Desk Agent* is excluded from the present analysis as the profile was sufficiently broad to encompass most respondents, thus skewing the results.

Analyst is the profile showing the second highest rate of graduates and fourth level qualifications among Belgian ICT professionals.

In Belgium, 65% of Business Analysts have an IT-focused education; this is very close to the general average of 66% for all Belgian respondents, and is slightly higher than the 61% average of European Business Analysts.

The majority of Business Analysts who responded were male (77%); this is clearly lower than the 90% male proportion for all Belgian respondents, and 11% lower compared to the 87% European average in the role. Among Business Analysts, Belgium is the country showing the highest rate of women in Europe.

The average Belgian Business Analyst is 37 years old, as is the overall Belgium average for ICT professionals, but for this role it is about 7 years younger than the average European Business Analyst (44 years old).

Belgian Business Analysts show a higher Competence Proficiency Index than the European average for this profile only in the Build area (35% vs. 28%). As regards the other areas, the gap ranges from -1.5 percentage points (Plan) to -11.9 (Manage). The CPI observed for Belgian Business Analysts and their European equivalent is: 44% vs. 46% in Plan area; 35% vs. 28% in Build area; 25% vs. 32% in Run area; 19% vs. 26% in the Enable Area, and 24% vs. 36% in the Manage area.

Belgian Business Analysts reach their highest CPIs in Process Improvement (71%), IS & Business Strategy Alignment (63%), Business Plan Development (62%), and Product or Project Planning (57%).

In comparison with the European average, the CPI for the Belgian Business Analyst profile shows a higher score for competences in the Build area: Solution Deployment (+14%), Design & Development (+10%), and Testing (+10%); while Risk Management (-16%), Project & Portfolio Management (-17%), Purchasing (-18%), and IT Governance (-23%) represent the biggest gaps

7.2 Systems Analyst

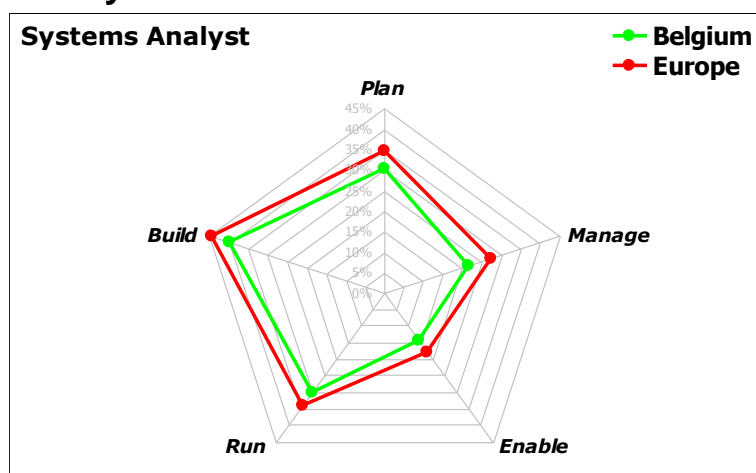


Figure 23 – Competence Proficiency Index – Systems Analyst

86% of Belgian Systems Analysts have obtained a university degree or higher; this is the same rate as for Systems Analysts in the rest of Europe. Also, the rate of fourth level qualifications (master's degree or PhD) for Systems Analyst (41%) is close to the European average of 45%. Comparing the results of Systems Analyst to those of all Belgian ICT professionals reveal no significant differences. In Belgium, 68% of Systems Analysts have an IT-focused education; this is slightly higher than the average of all Belgian respondents (66%) and the rate of all Systems Analysts in Europe (65%).

The Systems Analyst is a young ICT professional in Belgium; the average age is 37 years, about 3 years younger than the European average, but in line with the average of Belgian respondents (37 years old).

A large majority of the Systems Analysts who responded were male, but the rate is lower than the European average (86% vs. 90%) for this profile, and 3% lower than the Belgian average.

As regards the industry sector, Belgian Systems Analysts show a perfect balance between IT demand and IT supply (50% vs. 50%), while the European average shows a predominance of the IT supply side (55%).

Belgian Systems Analysts show a worse Competence Proficiency Index in every area compared to the European average for this profile, with differences ranging from -3.7% to -5.7%. CPIs for the profile are: Plan area 34% vs. 35%, Build area 40% vs. 44%, Run area 30% vs. 34%, Enable area 14% vs. 18%, and Manage area 22% vs. 27%.

For Belgian Systems Analysts, the best CPI can be found in Process Improvement (61%), Design & Development (58%), and Application Design (49%). Comparing these results to the European average, some major differences emerge: the widest gap, even though it is quite small, is +4% for Business Plan Development. As regards negative gaps, the major ones are for IS & Business Strategy Alignment (-11%), Architecture Design (-11%), ICT Quality Strategy Development (-10%), Project & Portfolio Management (-9%), and Product or Project Planning (-8%).

7.3 Developer

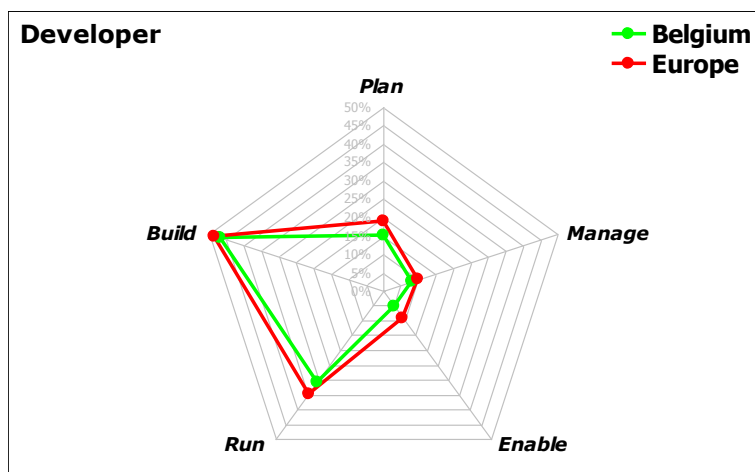


Figure 24 Competence Proficiency Index – Developer

76% of Belgian Developers have obtained a university degree or higher (this is the lowest rate among Belgian profiles), which is very close to the 75% of Developers in the rest of Europe. Moreover, 24% of Belgian Developers have obtained a fourth level qualification (master's degree or PhD); this is quite low compared to the European average of 37%, and also lower than the Belgian average (40%). In Belgium, 81% of Developers have an IT-focused education, this is significantly higher than the average domestic rate (66%) and also compared to 73% of all Developers in Europe.

The Belgian Developer is the youngest ICT professional in Belgium, with an average age of 29 years; almost 9 years younger than the European average and about 8 years younger than the Belgian average.

The majority of Developers who responded were male (81%), which is in line with the European average for this profile (82%), but lower (that is, slightly better) than the 90% male proportion for all Belgian respondents.

Only 29% of Belgian Developers are full-time employees, while the remaining 71% are students, unemployed or retired. The corresponding rates at the European level are 67% and 27% respectively. Of the remaining 6%, 1.2% are in part time employment and 3.8% are self-employed. The overall averages for Belgium are 56% full time and 33% students, unemployed or retired. Of this 33%, the majority are students (30%). More than half (60%) of Belgian Developers work in large organisations with more than 1,000 employees (European average: 50%).

Belgian Developers consistently show a lower Competence Proficiency Index than the European average for this profile in all five areas, with differences ranging from -1.6% to -3.9%. In detail: Plan area 15% vs. 19%, Build area 47% vs. 48%, Run area 31% vs. 34%, Enable area 5% vs. 9%, and Manage area 8% vs. 10%.

For Belgian Developers, the best CPI can be found in Documentation Production (76%), Design & Development (52%), and Testing (47%). Comparing these results to the European average reveals some negative competence gaps greater than 10%:

Sales Proposal Development (-12%) and Relationship Management (-11%); on the positive side, the widest gaps, though quite small indeed, are found for Information Security Management (+4%) and Information Security Strategy Development (+4%).

7.4 Digital Media Specialist

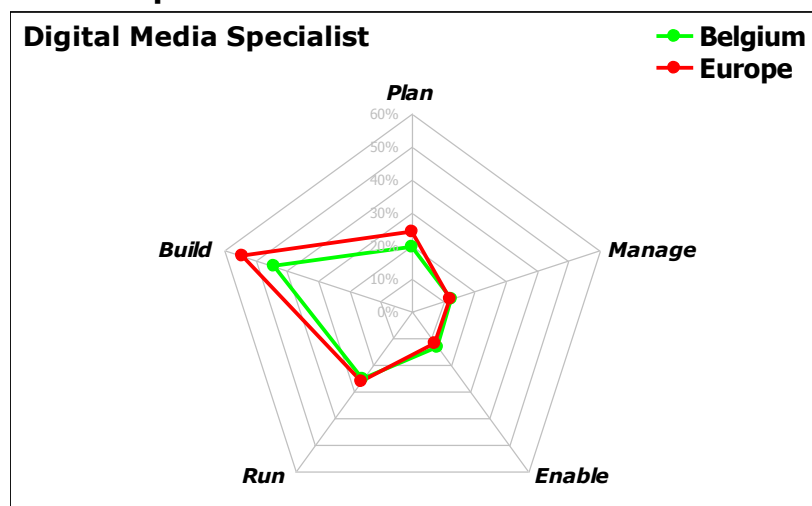


Figure 25 Competence Proficiency Index – Digital Media Specialist

93% of Belgian Digital Media Specialists have obtained a university degree or higher, which is slightly higher than the 90% European average. However, only 29% of Belgian Digital Media Specialists have obtained a fourth level qualification (master's degree or PhD); this is far from the European average of 43%, and from the domestic average of 40%. In Belgium, 86% of Digital Media Specialists have an IT-focused education that is higher than the general Belgian average (66%), but equal to the 85% of Digital Media Specialists in Europe.

The average Digital Media Specialist is 34 years old, 3 years younger than the Belgian average and about 5 years younger than the average European Digital Media Specialist (39 years old).

The majority of Digital Media Specialists who responded were male (86%). This figure is slightly lower than the 90% male proportion for all Belgian respondents, but very close to the European average for that profile (87%).

Only one out of three Belgian Digital Media Specialists are full time employees, while the European average for this profile is 80%. Most of them (60%) of them work in large organisations with more than 1,000 employees (European average: 46%). The other two thirds (64%) of Digital Media Specialists fall into the 'student/unemployed/retired' category.

Belgian Digital Media Specialists show a higher Competence Proficiency Index in two areas, compared to the European average: 13% vs. 12% for the Enable area and 13% vs. 12% for the Manage area as well. On the negative side, differences range from a minimum variance of -1.0% (Run area: 25% vs. 26%) to an intermediate gap

of -4.8% (Plan area, 19% vs. 24%), to the largest gap of -10.0% for the Build area (44% vs. 54%).

For Belgian Digital Media Specialists, the best CPI can be found in Documentation Production (52%), Solution Deployment (52%), Application Design (42%), Testing (42%), and Design & Development (42%). The variance with the European average CPI shows the Belgian Digital Media Specialist in a generally negative light: major positive differences are found in Process Improvement (+9%), Information Security Strategy Development (+8%), and Service Delivery (+6%). CPIs worse than the European average are found in Documentation Production (-20%), Application Design (-18%), Design & Development (-16%), and Architecture Design (-14%).

7.5 ICT Trainer

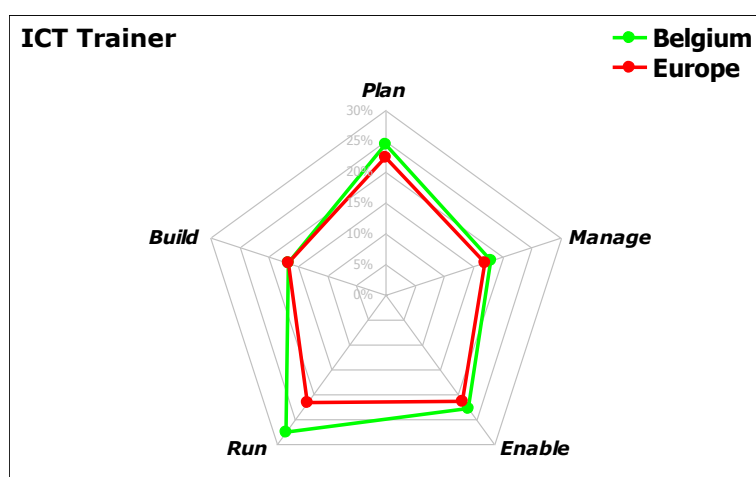


Figure 26 Competence Proficiency Index – ICT Trainer

93% of Belgian ICT Trainers have obtained a university degree or higher; this is slightly more than the 91% rate of ICT Trainers in Europe. Moreover, 52% of Belgian ICT Trainers have obtained a fourth level qualification (master's degree or PhD) compared to the European average of 53%. In Belgium, 45% of ICT Trainers have an IT-focused education; this is lower than the domestic rate of 66% and lower than the average for ICT Trainers in Europe (59%).

The average age of Belgian ICT Trainers (37 years old) is close to the average of all ICT professionals in Belgium. They are less than one year older than the Belgian average, but about 8 years younger than the average European ICT Trainer (45 year old).

The majority of ICT Trainers who responded were male (69%), however this profile shows the highest rate of female participation among all of the Belgian IT profiles (31%), and even among European profiles, even though this is a low percentage (25%).

Belgian ICT Trainers have a higher Competence Proficiency Index than the European average for the profile in four of the five areas: Plan: 24% vs. 22%, Run: 27% vs. 22%, Enable: 23% vs. 21%, and Manage 18% vs. 17%. Regarding the fifth

area, Build, Belgian ICT Trainers gain the same CPI as their European colleagues (17%).

The Competence Proficiency Index for Belgian ICT Trainers clearly gains its best results in Education & Training Provision (65%), Personnel Development (51%), Product or Project Planning (38%), and User Support (35%).

Comparing the Belgian CPI results to the European average does reveal some differences: major gaps are seen in Change Support (+11%) and ICT Quality Strategy Development (9%). The largest negative difference, although small, are IT Governance (-7%) and Purchasing (-4%)

7.6 Database Administrator

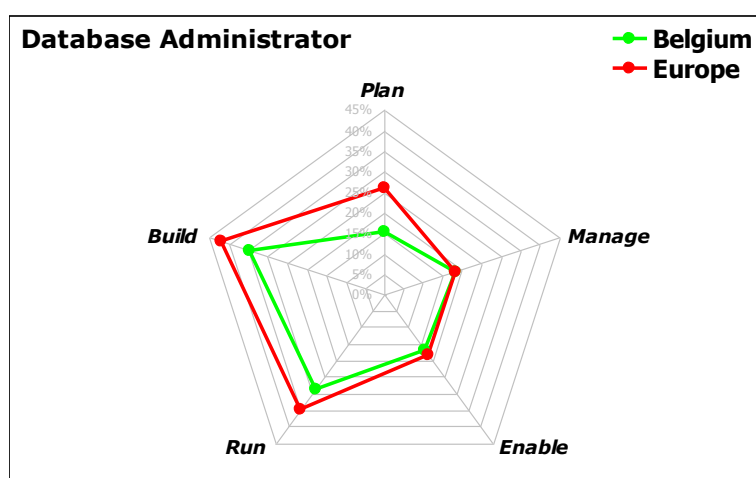


Figure 27 Competence Proficiency Index – Database Administrator

80% of Belgian Database Administrators have obtained a university degree or higher; a lower rate than the 82% of Database Administrators in Europe. However, only 20% of Belgian Database Administrators have obtained a fourth level qualification (master's degree or PhD), this compares poorly to the European average of 33%, and half the domestic rate for all Belgian ICT professionals (40%). In Belgium, 93% of Database Administrators have an IT-focused education; this is significantly higher than the national average (66%) and also higher than the average of their European colleagues (83%).

Belgian Database Administrators are on average 31 years old, the second youngest ICT professionals in Belgium, about 7 years younger than the European average (38 years old), and about 6 years younger than the average for ICT professionals in Belgium (37).

All Database Administrators who responded were male, while the male proportion for all Belgian respondents is 90% and the rate of men among European colleagues is 89%. This makes Database Administrator in Belgium one of the few jobs that have zero female representation.

As with other profiles, this role also shows an unbalanced distribution of professional status: only 33% of Database Administrators declared themselves to be in full-time employment, while almost all the others (47%) were students and 13% unemployed or retired (combined rate of 60%). The remaining 7% were self-employed. This is almost twice the average of Belgian ICT professionals (33%) and significantly higher than the European average of 21%.

In Belgium, Database Administrators show worse Competence Proficiency Indexes than the European average for this profile in four areas: 15% in the Plan area vs. 26%, 35% in the Build area vs. 42%, 28% in the Run area vs. 34%, and 17% in the Enable area vs. 18%. In the Manage area they reached the same index (18%) as their European colleagues.

For Belgian Database Administrators, the best CPIs are in Design & Development (49%), Application Design (41%), Documentation Production (38%), Information & Knowledge Management (37%), and Systems Integration (36%).

Comparing Belgian Database Administrator results with the European average reveal some major differences: the widest positive gaps exist for Channel Management (+9%) and ICT Quality Management (+8%), while on the negative side, the widest gaps are in Architecture Design (-19%), Systems Integration (-14%), and Education & Training Provision (-14%)

7.7 Systems Administrator

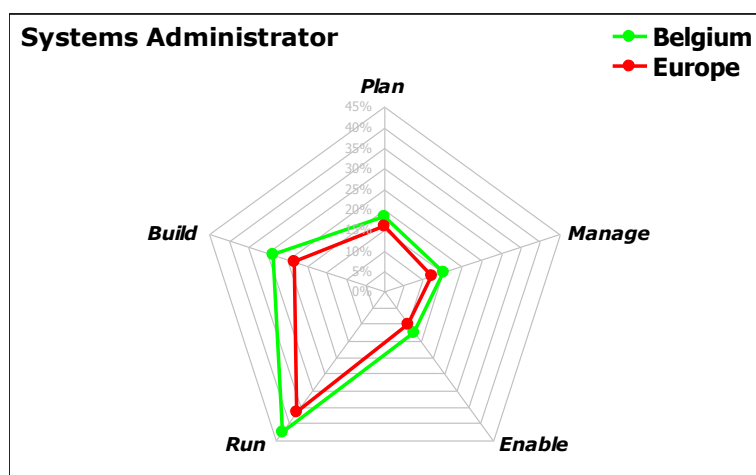


Figure 28 – Competence Proficiency Index – Systems Administrator

This profile shows the highest rate of graduates among Belgian ICT professionals: all Belgian Systems Administrators have obtained a university degree or higher. In Europe this figure is only 79%. However, only 17% of Belgian Systems Administrators have obtained a fourth level qualification (master's degree or PhD) making it the lowest rate in Belgium even lower than the European average of 23%. In Belgium, 83% of Systems Administrators have an IT-focused education; this is notably higher than the Belgian general average of 66% and 11% higher than their European colleagues (72%).

On average, the Belgian Systems Administrator is quite a young ICT professional, averaging 34 years while the European average for this profile is 4 years older (38 years).

The majority of Systems Administrators who responded were male (92%), which is slightly above the 90% male proportion for all Belgian respondents, and even higher than the European average (87%) for this role.

Systems Administrator in Belgium, as well as in Europe, is the ICT profile which has the lowest proximity rate: 76.2%. An explanation for this low rate could be that it is more difficult to meet all the required competences for this profile.

In Belgium, the Systems Administrators show Competence Proficiency Indexes which vary from +2.3% to +6.0% compared to the European average: Plan area: 18% vs. 16%, Build area: 29% vs. 23%, Run area: 42% vs. 36%, Enable area: 12% vs. 10%, and Manage area: 15% vs. 12%.

Regarding the Competence Proficiency Index, Belgian Systems Administrators gain their best results in User Support (71%), Testing (38%), and Change Support (37%). Compared to the European CPIs, there are noticeable negative differences for Personnel Development (-7%) and IT Governance (-6%). On the positive side, the Belgian CPIs for this profile are higher for Process Improvement (12%), Contract Management (13%), Sales Proposal Development (13%), and Application Design (14%).

7.8 Technical Specialist

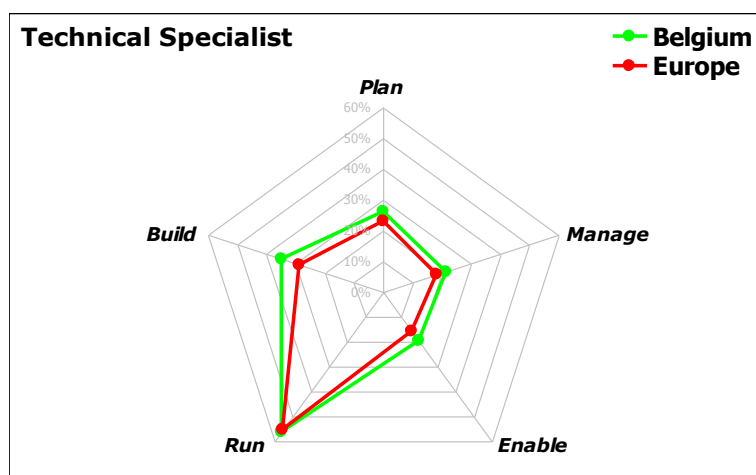


Figure 29 Competence Proficiency Index – Technical Specialist

91% of Belgian Technical Specialists have obtained a university degree or higher; this is more than the 79% of Technical Specialists in Europe, but quite close to the Belgian general average (89%). Moreover, 35% of Belgian Technical Specialists have obtained a fourth level qualification (master's degree or PhD); this is 9% higher than the European average of 26%, but a bit lower than the Belgian average for all ICT professionals (40%). In Belgium, 61% of Technical Specialists have an IT-

focused education: this rate is lower than the 68% average of European colleagues, and also compared to the 66% of all Belgian respondents.

The Technical Specialist is quite mature (second oldest) compared to the other ICT professionals in Belgium. In fact, the average Belgian Technical Specialist is 40 years old, about 2 years younger than their European colleagues (42 years old) but about 3 years older than the average of all Belgian ICT professionals (37 years).

The majority of Technical Specialists who responded were male (88%), a slightly lower percentage than the proportion of respondents from all Europe (89%) and the Belgian average (90%).

Belgian Technical Specialists show a Competence Proficiency Index that exceeds the European average in every area: slightly higher in Run area (56% vs. 55%), with wider differences in the other areas: Plan area (26% vs. 23%), Build area (35% vs. 29%), Enable area (19% vs. 16%), and Manage area (22% vs. 18%).

Regarding the Competence Proficiency Index, Belgian Technical Specialists gain their best results in all competences of the Run area: Change Support (73%), Problem Management (54%), User Support (51%), and Service Delivery (50%). Some slightly negative differences with the European average arise in User Support (-4%). The best performances compared to the European average CPI are in ICT Quality Management (+11%), Business Plan Development (+10%), Information & Knowledge Management (+8%), Product or Project Planning (+7%), Design & Development (+7%), and Testing (+7%).

7.9 Project Manager

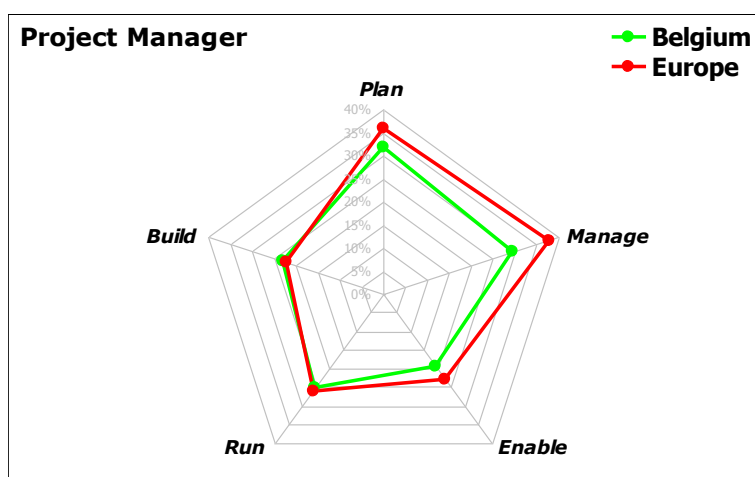


Figure 30 Competence Proficiency Index – Project Manager

A large majority (94%) of Belgian Project Managers have obtained a university degree or higher, making them better educated than their European colleagues who average at 89% and also higher than the national average (89%). A significant difference is found in the rate of fourth level qualification: 81% of Belgian Project Managers have obtained a fourth level qualification (master's degree or PhD), this is significantly higher than the European average of 54%. Moreover, this profile shows

the second highest rate of graduates among all Belgian ICT professionals, and the top rate for master's degree or PhDs. In Belgium, 31% of Project Managers have an IT-focused education (the lowest rate in Belgium); this is lower than the 66% of all Belgian respondents, and quite low even compared with the 48% of European Project Managers.

Three out of four Project Managers who responded were male (75%), which is far from the 90% male proportion for all Belgian respondents, but equal to the European average. However, Project Manager (as well as ICT Trainer) is one of the profiles showing the highest rate of women, both in Belgium and in Europe.

Project Manager is the oldest profile in Belgium, with an average age of 44 years, the same as the European average for this profile. However, the average Belgian Project Manager is more than 7 years older than the national average that stands at 37 years old.

Among Belgian Project Managers, almost two thirds work in larger organisations (+1000 employees, 64%), a high rate in Belgium, where the average for all respondents results is 41%. The corresponding European average is 47%.

Belgian Project Managers show a better Competence Proficiency Index than the European average for this profile in only one of the five areas, and differences are sometimes subtle: the Plan area with 31.8% vs. 36.0%, the Build area with 22.8% vs. 22.1%, the Run area with 25.2% vs. 26.0%, the Enable area with 19.3% vs. 22.9%, and the Manage area with 29.5% vs. 37.6%.

The Project Manager gains the best Competence Proficiency Index in Product or Project Planning (60%), Project & Portfolio Management (51%), Business Change Management (44%), and Relationship Management (42%).

The most significant difference in comparison to the European Project Managers is in Testing (+12%). On the negative side, the most remarkable differences are found in the following: Contract Management (-14%), Process Improvement (-14%), IT Governance (-12%), Information Security Management (-11%), Relationship Management (-11%), and Business Plan Development (-11%).

8 Conclusions

The following section draws conclusions based on the analysis of 9 profiles that arose from the 206 respondents of Belgium.

The data gathered in this round of the CEPIS e-Competence Benchmark research shows a high degree of interest from professionals in reflecting on their own competences and shows how the e-CF provides an effective basis for this. However, from a statistical point of view, the results need to be tackled with care, as the sample of voluntary respondents who accepted the invitation from the computer society could prove to be biased and not fully representative of the total community of local ICT professionals in Belgium.

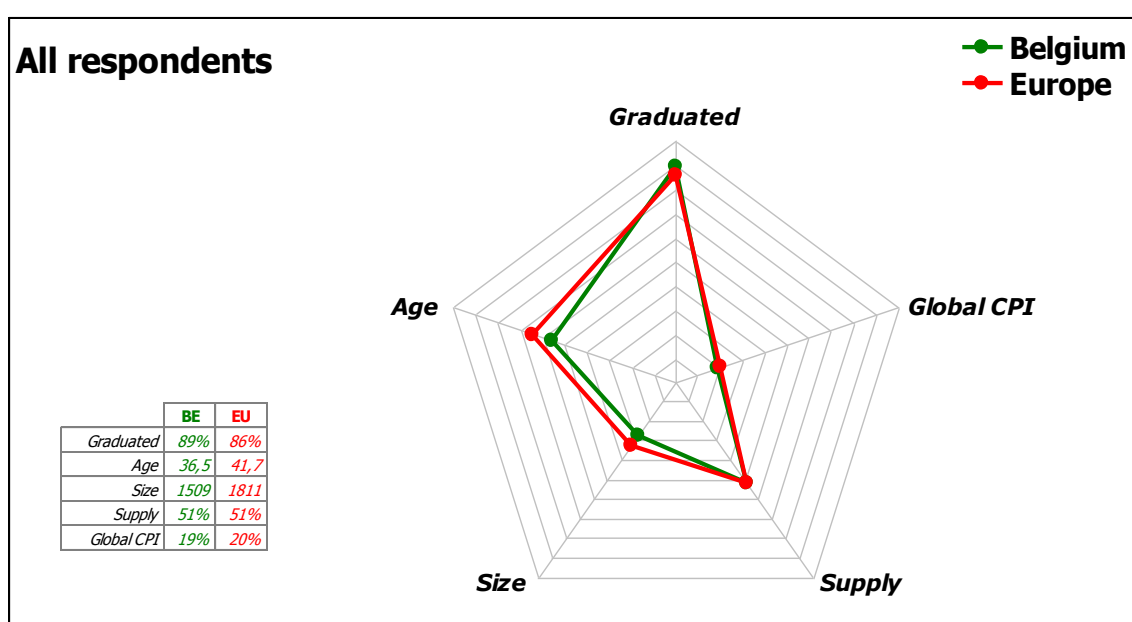


Figure 31 The Belgian Respondents Profile

The average profile of the Belgian respondent ([Figure 31](#)) differs from the European average profile essentially by being younger. The analysis of profile segmentation per profile and by age (see section 6.1.1) shows that the general average age is around 37 years in Belgium, while the European average age is 42 years. Belgian ICT professionals are the youngest among European countries.

This finding is especially pronounced in two profiles, as two out of three Developers and 57% of Belgian Digital Media Specialists declared to be students. Nevertheless, as in other countries, for Belgium there is a need to attract younger people to the ICT profession without losing the experience of the older age group. Although almost all Belgian profiles show high rates of professionals under 30 (39% globally) the data still shows the certain profiles are ageing. [Figure 32](#) below shows the distribution for each profile of Belgian ICT professionals by age range.

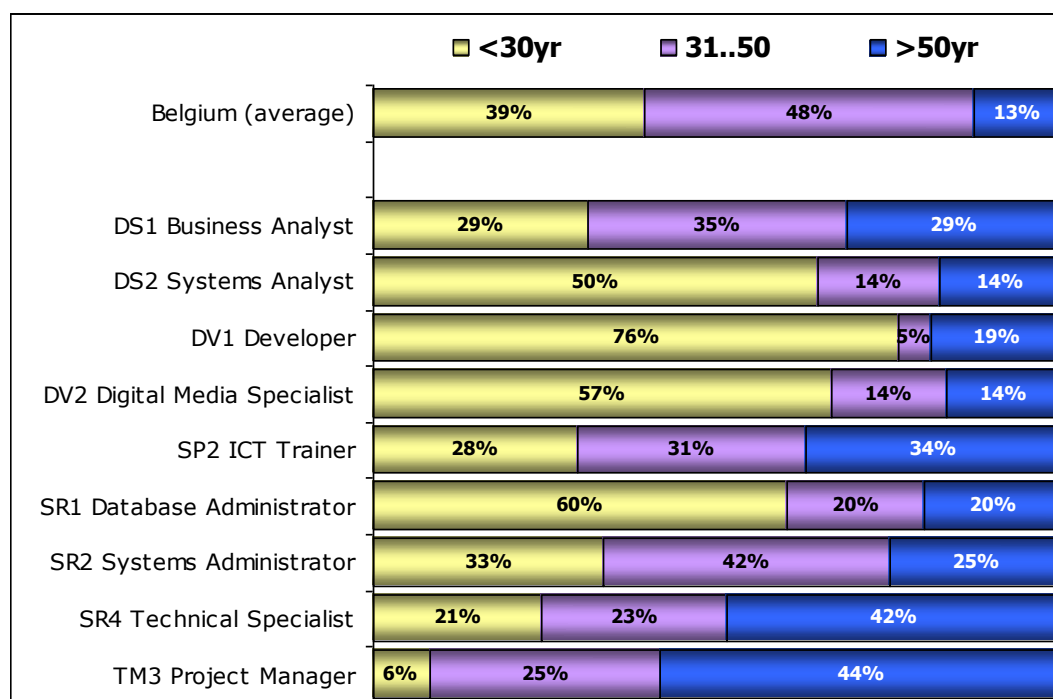


Figure 32 Profile Distribution by Age Range

The segmentation of profiles by gender (section 6.1.2) provides evidence that female representation in ICT in Belgium is very limited, as indeed it is across Europe. Belgium shows the lowest average rate (10%) of women across Europe. The participation of women rate of more than 15% was only found in four profiles (ICT Trainer 31%, Project Manager 25%, Business Analyst 24%, and Developer 19%). In one profile, there were no female respondents at all (Database Administrator) yet at European level, female representation for this profile is 15%.

The results of the educational level questions (section 6.1.3 and 6.1.4) suggest that the level of attainment of degrees is slightly better than in other countries. For eight of the nine analysed profiles, the Belgian rate is higher than the corresponding European rate and in two profiles the Belgian rate shows a gap wider than 10%: Technical Specialist (+11%) and Systems Administrator (+21%). With regards to the profile distribution by IT-focused education, there is evidence to suggest a sufficient level of IT-focused education. In fact, only two profiles count for more than half of ICT professionals without an IT-focused education: ICT Trainer (55%) and Project Manager (69%).

Results show that apart from Database Administrator (67%), all profiles do not show a relevant predominance of the IT supply side (range of distribution between 47% - 56%, section 6.1.5). As regards the profile distribution by industry it is remarkable that none of the Belgian Digital Media Specialists and Developers work in small companies.

For the level of Competence Proficiency Index (section 3.3) of Belgian respondents, it appears that the results compare favourably to only one of the five areas at European level (Build area: 25%, +0.2% than the European average). On the other side, results show a gap ranging from -0.9% to -3.5%: Enable area (14% vs. 15%),

Manage area (17% vs. 18%), Plan area (22% vs. 24%), and Run area (26% vs. 29%).

Looking at the difference between CPIs in Belgium and the corresponding European averages (Figure 33), Belgian CPIs are in general lower than the European average, but they do not present significant gaps. The largest variance, lower than the European CPI, appears for User Support (-6.0%), Architecture Design (-5.6%), Education & Training Provision (-5.2%), Problem Management (-4.4%), and Purchasing (-4.0%). On the other hand, Belgian CPIs are higher than the European average for Design & Development (+3.6%) and Process Improvement (+2.1%).

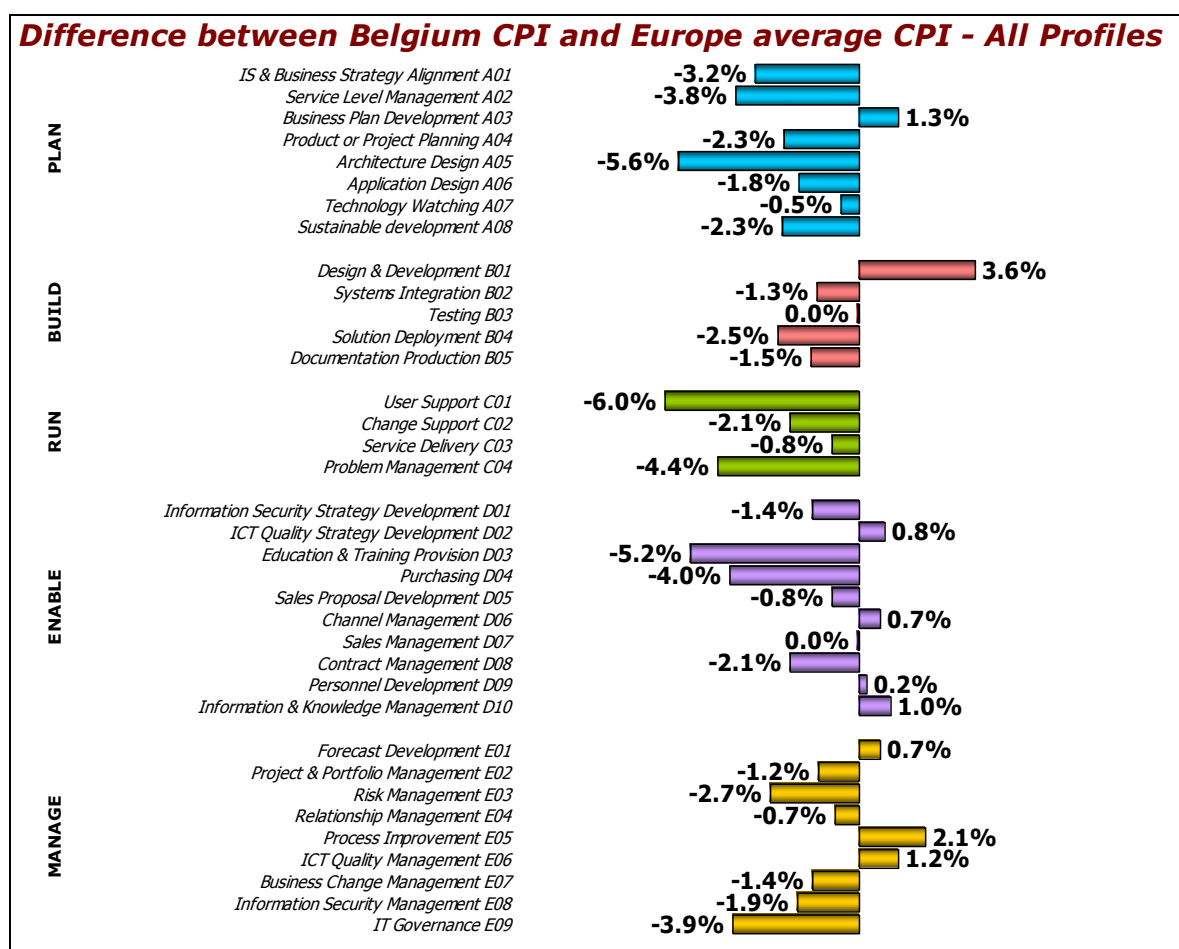


Figure 33 Competence Proficiency Index – Differences to European Average

A deeper analysis of the Competence Proficiency Indexes compared to each profile requirement is fundamental in order to design detailed training paths to cover the competence gaps for each Proximity Profile of each respondent.

For example, the analysis of the three main competences of the Systems Analyst profile reveals that Belgian Systems Analysts always suffer a competence gap compared to their European colleagues: -4% in Process Improvement, -5% in Design & Development and -11% in Architecture Design.

9 Annex

9.1 Proximity Profiles – Overview

9.1.1 Profile Distribution by Age

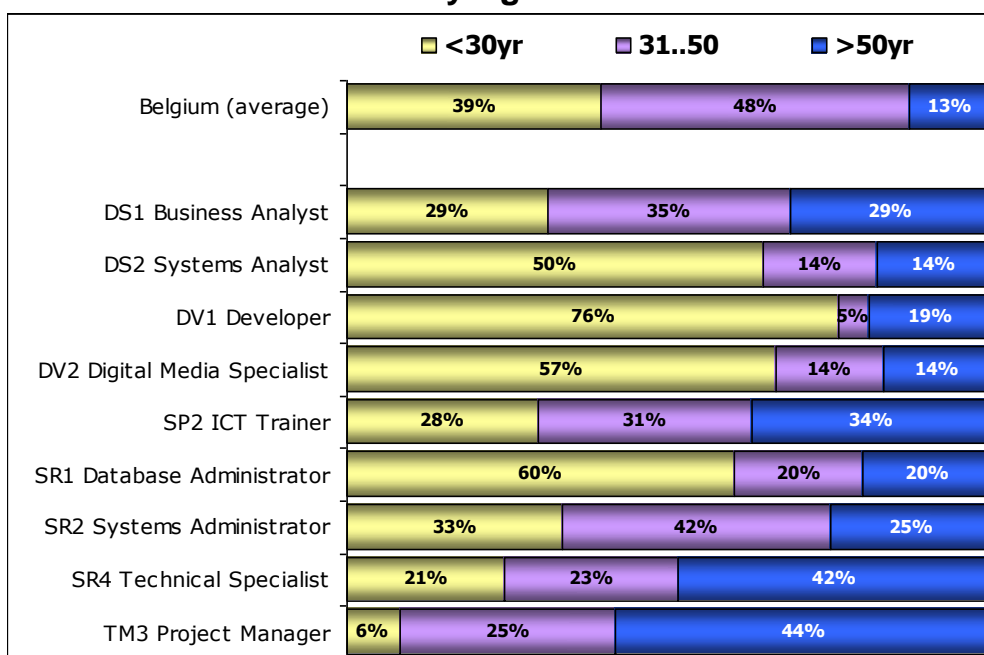


Figure 34 Proximity Profiles - distribution by age

9.1.2 Profile Distribution by Gender

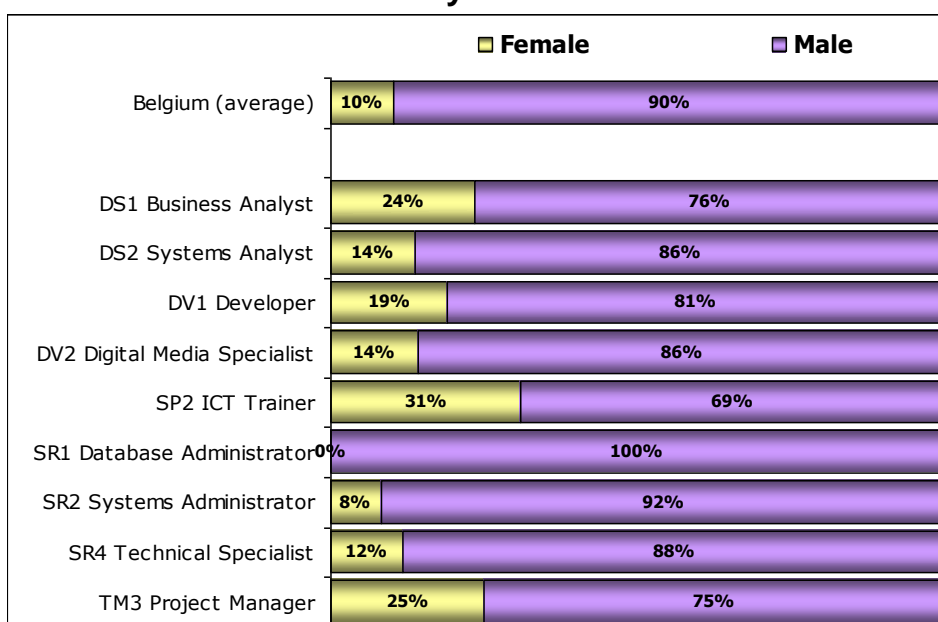


Figure 35 Proximity Profiles - profile distribution by gender

9.1.3 Profile Distribution by Education Level

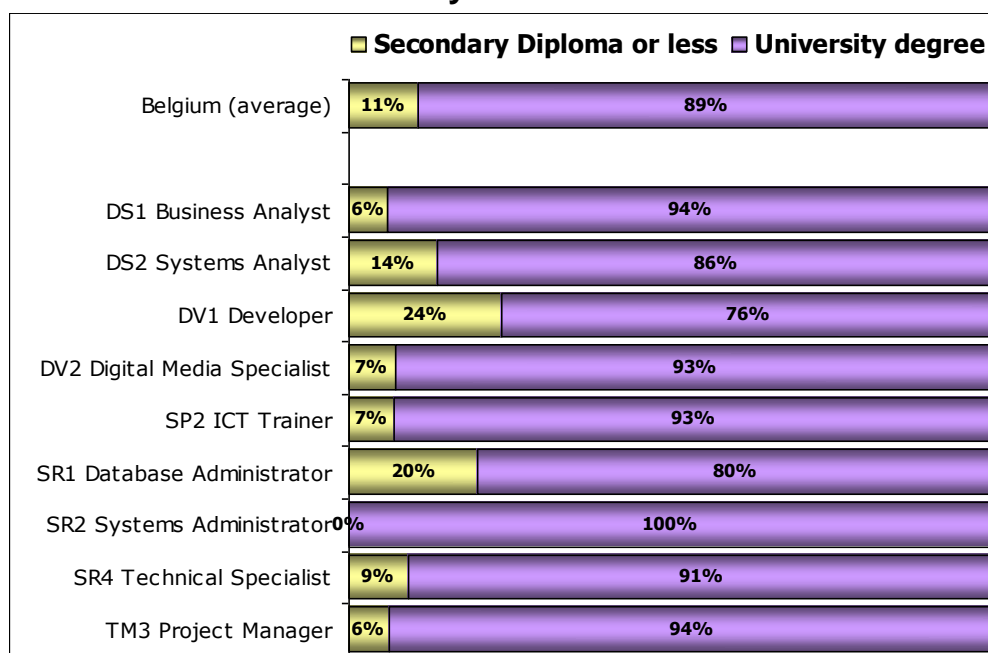


Figure 36 Proximity Profiles - profile distribution by education level

9.1.4 Profile Distribution by IT Education

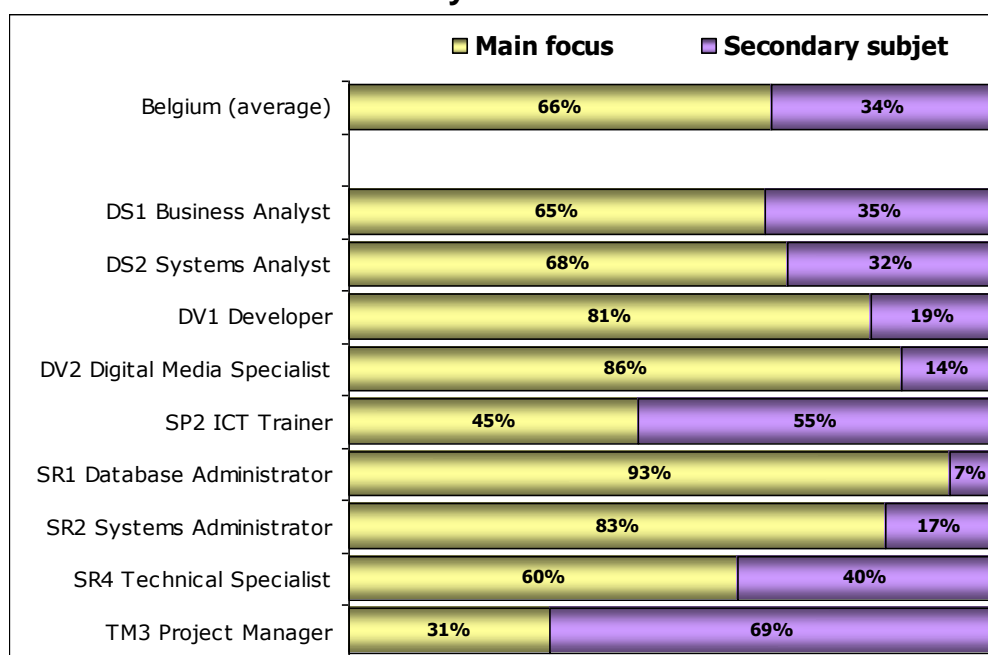


Figure 37 Proximity Profiles - profile distribution by IT education

9.1.5 Profile Distribution by Industry

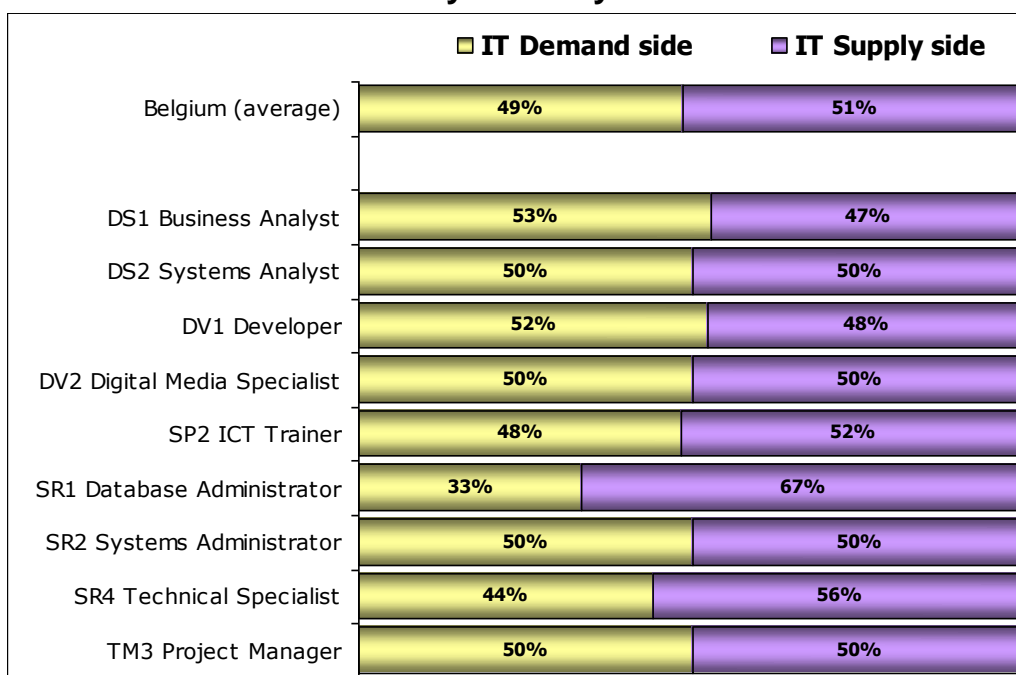


Figure 38 Proximity Profiles - profile distribution by industry

9.1.6 Profile Distribution by Enterprise Size

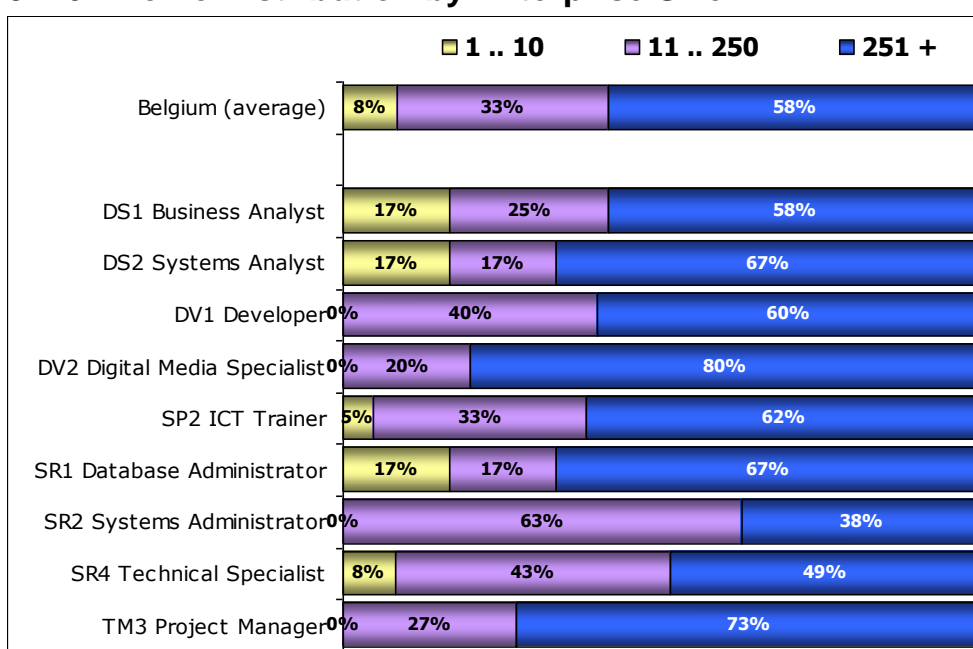


Figure 39 Proximity Profiles – profile distribution by enterprise size

9.1.7 Profile Summary Table

	Europe	Belgium	DS1 Business Analyst	DS2 Systems Analyst	DV1 Developer	DV2 Digital Media Specialist	SP2 ICT Trainer	SR1 Database Administrator	SR2 Systems Administrator	SR4 Technical Specialist	TM3 Project Manager
Cases	1604	206	17	22	21	14	29	15	12	43	16
Age											
Mean	41.7	36.5	36.8	36.8	29.0	33.6	37.2	31.0	34.2	40.3	43.8
<30 yr	16%	39%	29%	50%	76%	57%	28%	60%	33%	21%	6%
30 - 40	29%	20%	35%	14%	5%	14%	31%	20%	42%	23%	25%
40 - 50	32%	28%	29%	14%	19%	14%	34%	20%	25%	42%	44%
50 - 60	17%	10%	-	14%	-	14%	3%	-	-	9%	25%
61 - ..	5%	2%	6%	9%	-	-	3%	-	-	5%	-
Gender											
Female	15%	10%	24%	14%	19%	14%	31%	-	8%	12%	25%
Male	85%	90%	76%	86%	81%	86%	69%	100%	92%	88%	75%
Education											
Secondary or less	14%	11%	6%	14%	24%	7%	7%	20%	0%	9%	6%
University (Graduate or more)	86%	89%	94%	86%	76%	93%	93%	80%	100%	91%	94%
4th Level (Masters/Phd)	40%	40%	65%	41%	24%	29%	52%	20%	17%	35%	81%
IT Educational											
IT was the main focus of my education	67%	66%	65%	68%	81%	86%	45%	93%	83%	60%	31%
IT was a side subject	23%	19%	24%	14%	14%	0%	17%	7%	0%	21%	31%
IT was not significant in my curriculum	11%	16%	12%	18%	5%	14%	38%	0%	17%	19%	38%
Current professional status											
Full time employee	78%	56%	59%	36%	29%	36%	59%	33%	67%	74%	69%
Part time employee	2%	1%	0%	5%	0%	0%	7%	0%	0%	0%	0%
Self-employed	8%	10%	18%	9%	0%	0%	7%	7%	0%	16%	19%
Student / Unemployed / Retired	12%	33%	24%	50%	71%	64%	28%	60%	33%	9%	13%
Number of employees											
1 - 10	11%	8%	17%	17%	0%	0%	5%	17%	0%	8%	0%
11 - 50	13%	10%	0%	0%	20%	0%	10%	0%	13%	19%	9%
51 - 250	22%	23%	25%	17%	20%	20%	24%	17%	50%	24%	18%
251 - 1000	18%	18%	8%	0%	0%	20%	24%	50%	38%	14%	9%
> 1000	36%	41%	50%	67%	60%	60%	38%	17%	0%	35%	64%
Industry											
Mainly on IT demand side	49%	49%	53%	50%	52%	50%	48%	33%	50%	44%	50%
Mainly on IT supply side	51%	51%	47%	50%	48%	50%	52%	67%	50%	56%	50%
Proximity index	86.9	85.1	88.6	81.3	83.5	75.6	89.1	77.5	76.2	93.6	86.4
Min	40	41	54	42	51	42	53	44	45	41	54
Max	100	100	100	100	100	100	100	100	100	100	100
Competence index											
A - Plan	24%	22%	44%	30%	15%	19%	24%	15%	18%	26%	32%
B - Build	25%	25%	35%	40%	47%	44%	17%	35%	29%	35%	23%
C - Run	29%	26%	25%	30%	31%	25%	27%	28%	42%	56%	25%
D - Enable	15%	14%	19%	14%	5%	13%	23%	17%	12%	19%	19%
E - Manage	18%	17%	24%	22%	8%	13%	18%	18%	15%	22%	30%
Competence index											
A01 % IS & Business Strategy Alignment	23%	19%	63%	21%	7%	8%	19%	4%	5%	17%	39%
A02 % Service Level Management	20%	16%	29%	19%	2%	7%	19%	6%	17%	23%	26%
A03 % Business Plan Development	18%	19%	62%	36%	7%	9%	22%	13%	10%	23%	24%
A04 % Product or Project Planning	32%	30%	57%	36%	20%	27%	38%	18%	31%	39%	60%
A05 % Architecture Design	31%	26%	38%	43%	22%	23%	29%	18%	20%	32%	27%
A06 % Application Design	29%	27%	37%	49%	44%	42%	22%	41%	33%	27%	42%
A07 % Technology Watching	31%	31%	49%	31%	23%	35%	33%	25%	22%	38%	30%
A08 % Sustainable development	9%	7%	3%	4%	2%	10%	10%	3%	8%	9%	3%
B01 % Design & Development	23%	26%	37%	58%	52%	42%	15%	49%	22%	28%	15%
B02 % Systems Integration	24%	23%	23%	29%	32%	39%	13%	36%	34%	37%	19%
B03 % Testing	22%	22%	32%	23%	47%	42%	16%	12%	38%	32%	38%
B04 % Solution Deployment	25%	23%	43%	33%	26%	52%	13%	23%	26%	41%	14%
B05 % Documentation Production	34%	33%	45%	42%	76%	52%	29%	38%	28%	41%	40%
C01 % User Support	35%	29%	37%	42%	37%	27%	35%	28%	71%	51%	25%
C02 % Change Support	32%	30%	28%	30%	30%	34%	33%	33%	37%	73%	33%
C03 % Service Delivery	21%	21%	20%	21%	17%	29%	21%	22%	29%	50%	22%
C04 % Problem Management	29%	25%	20%	28%	36%	17%	24%	30%	35%	54%	24%
D01 % Information Security Strategy Development	17%	15%	18%	12%	17%	23%	18%	17%	25%	21%	19%
D02 % ICT Quality Strategy Development	18%	19%	18%	12%	7%	23%	29%	14%	9%	25%	26%
D03 % Education & Training Provision	22%	17%	24%	11%	2%	19%	65%	3%	7%	20%	30%
D04 % Purchasing	16%	12%	9%	17%	3%	6%	13%	9%	16%	23%	22%
D05 % Sales Proposal Development	16%	16%	24%	20%	0%	15%	18%	21%	25%	22%	25%
D06 % Channel Management	4%	5%	0%	2%	0%	0%	3%	13%	0%	8%	0%
D07 % Sales Management	5%	5%	10%	4%	1%	2%	5%	10%	0%	3%	2%
D08 % Contract Management	13%	11%	16%	12%	0%	7%	11%	7%	25%	19%	13%
D09 % Personnel Development	22%	22%	33%	20%	6%	21%	51%	25%	5%	25%	37%
D10 % Information & Knowledge Management	20%	21%	35%	27%	14%	19%	31%	37%	10%	29%	24%
E01 % Forecast Development	11%	12%	11%	14%	2%	6%	12%	10%	0%	15%	10%
E02 % Project & Portfolio Management	20%	19%	25%	24%	10%	15%	29%	15%	14%	25%	51%
E03 % Risk Management	16%	13%	12%	15%	9%	10%	13%	20%	16%	17%	40%
E04 % Relationship Management	24%	23%	38%	28%	6%	17%	28%	30%	19%	20%	42%
E05 % Process Improvement	23%	25%	71%	61%	15%	21%	24%	29%	26%	31%	21%
E06 % ICT Quality Management	13%	14%	12%	13%	8%	13%	15%	23%	8%	27%	20%
E07 % Business Change Management	18%	17%	33%	21%	6%	8%	17%	22%	17%	19%	44%
E08 % Information Security Management	14%	12%	8%	14%	14%	16%	9%	9%	30%	20%	5%
E09 % IT Governance	18%	14%	9%	10%	0%	8%	13%	7%	5%	20%	13%

9.2 Proximity Profiles – Details

9.2.1 Business Analyst

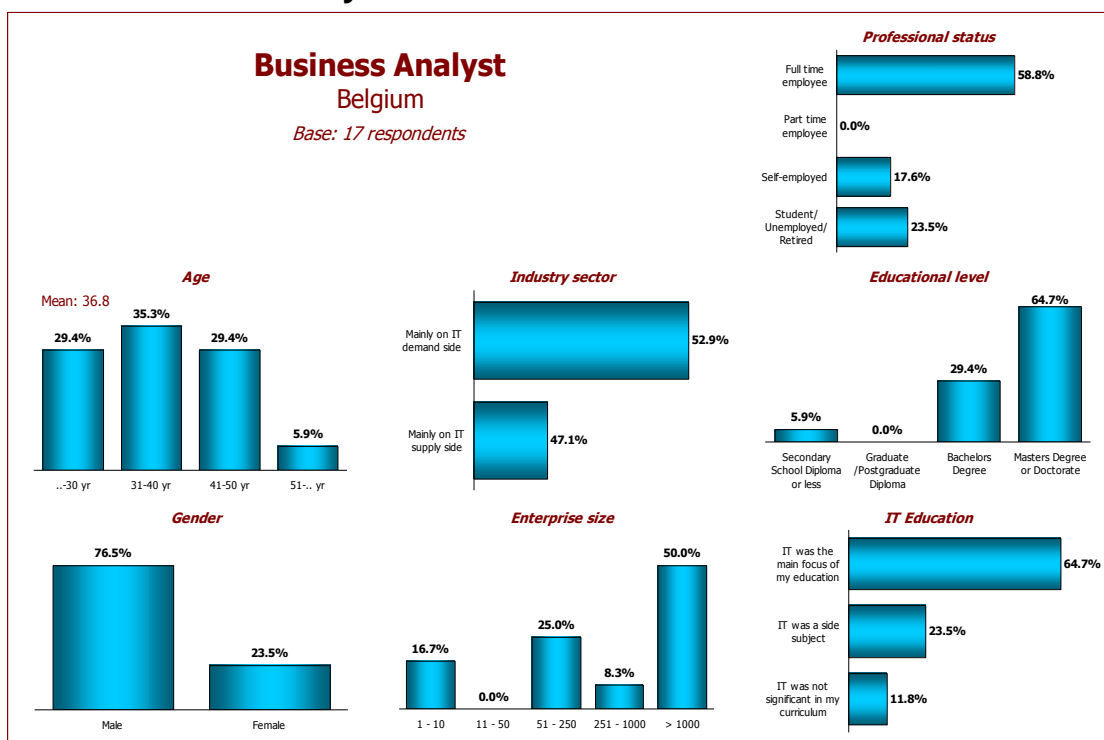


Figure 40 Proximity Profiles - Business Analyst

9.2.2 Systems Analyst

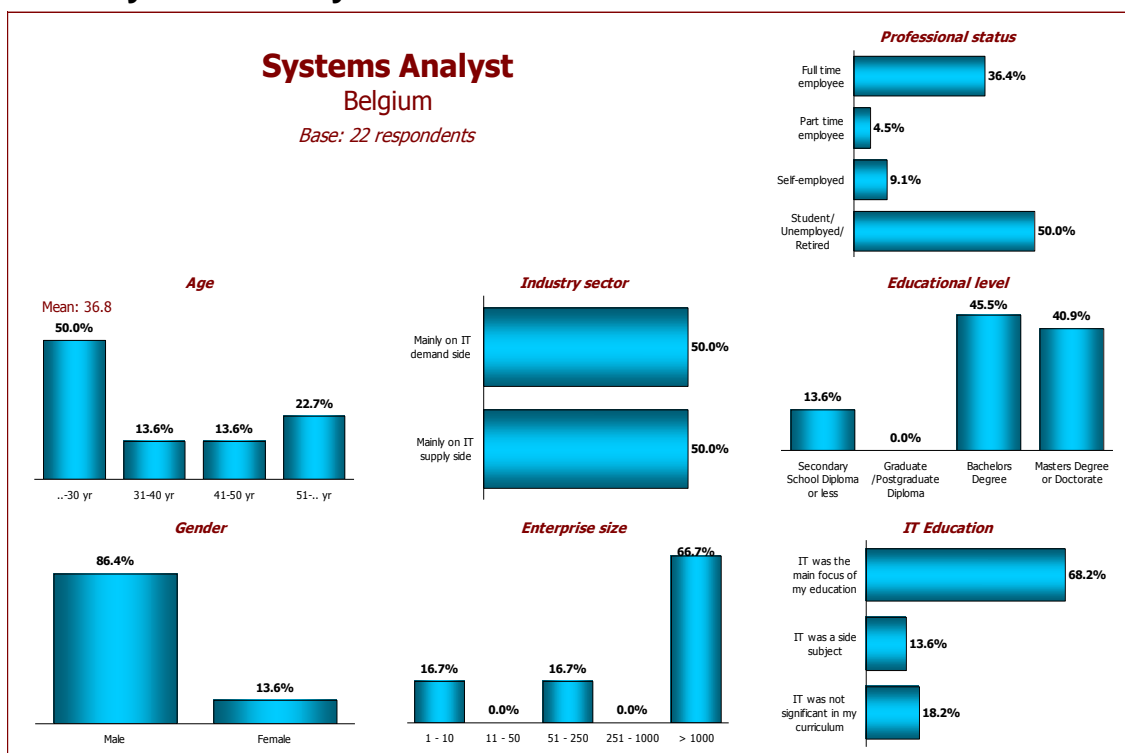


Figure 41 Proximity Profiles - Systems Analyst

9.2.3 Developer

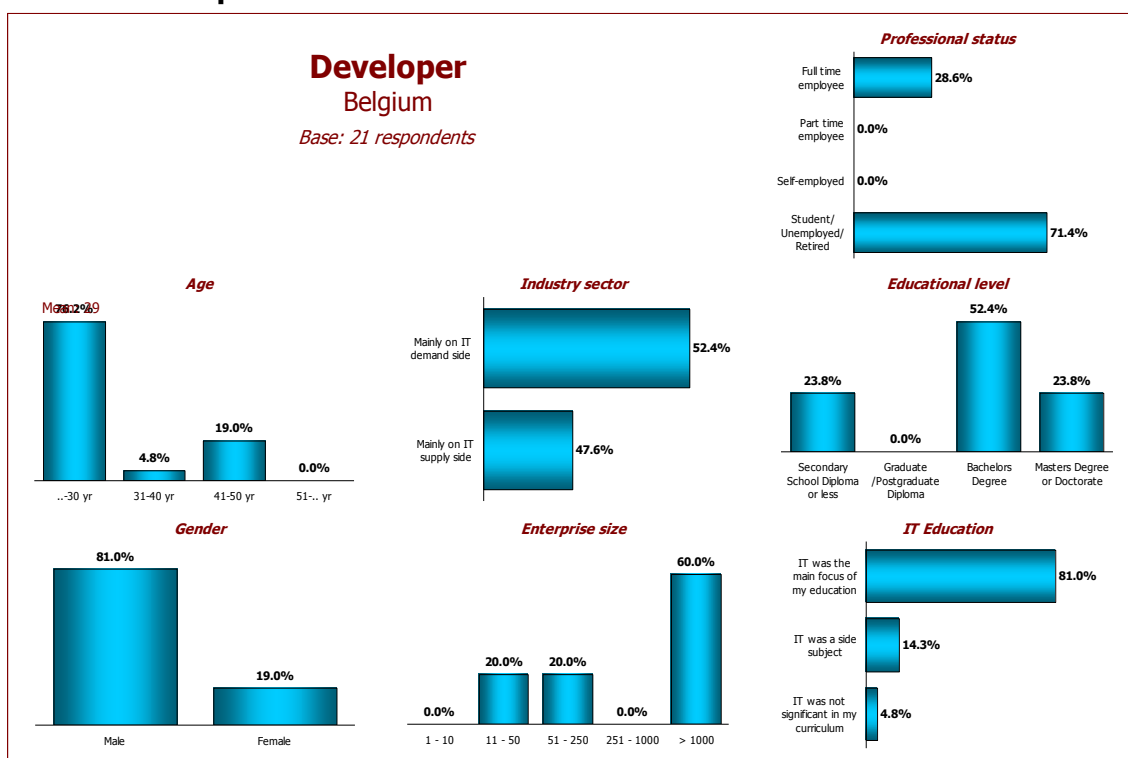


Figure 42 Proximity Profiles - Developer

9.2.4 Digital Media Specialist

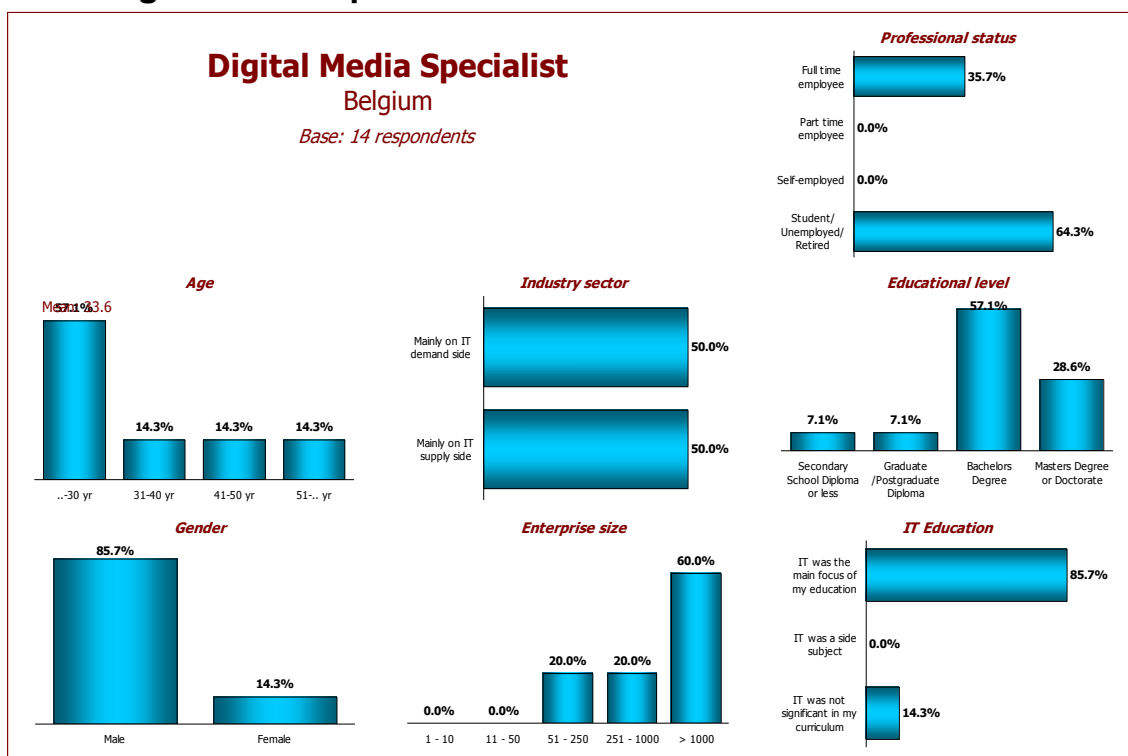


Figure 43 Proximity Profiles - Digital Media Specialist

9.2.5 ICT Trainer

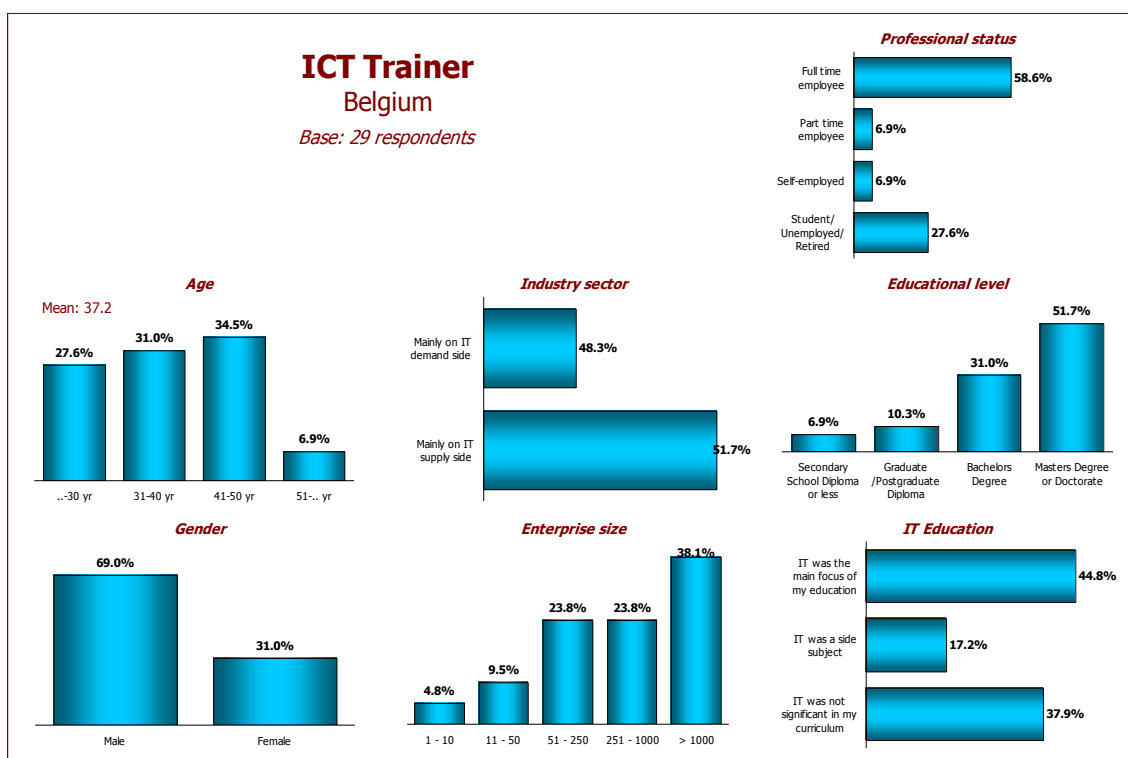


Figure 44 Proximity Profiles - Trainer

9.2.6 Database Administrator

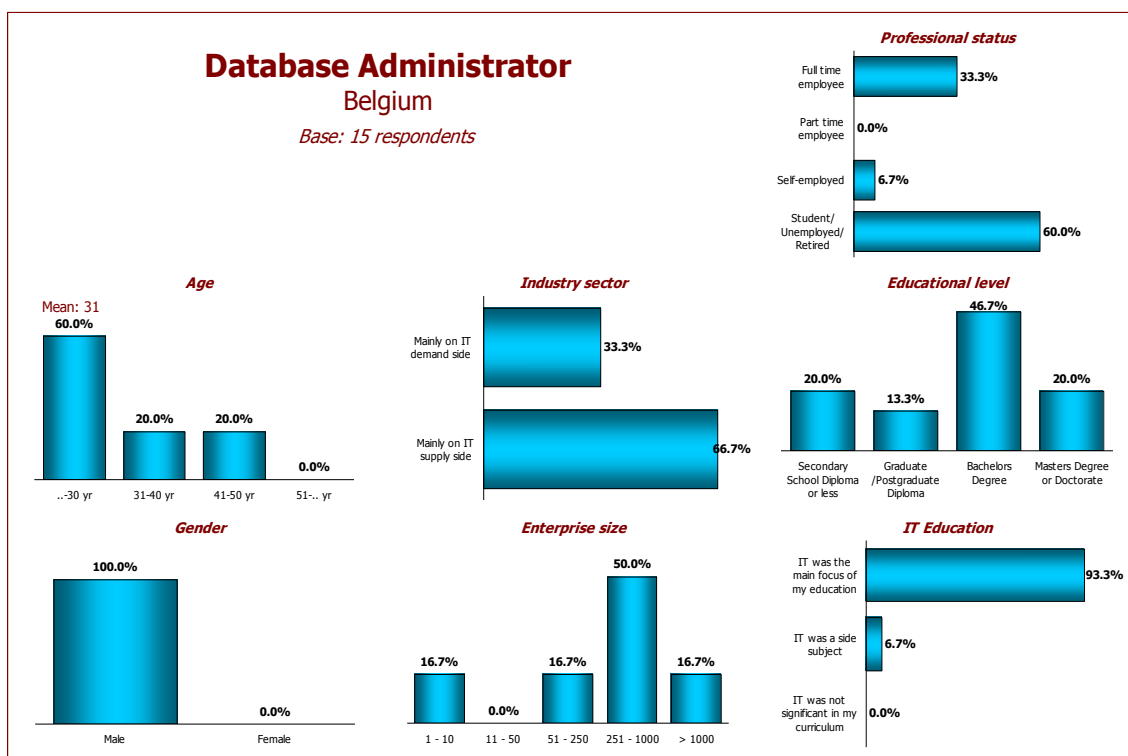


Figure 45 Proximity Profiles - Data administrator

9.2.7 Systems Administrator

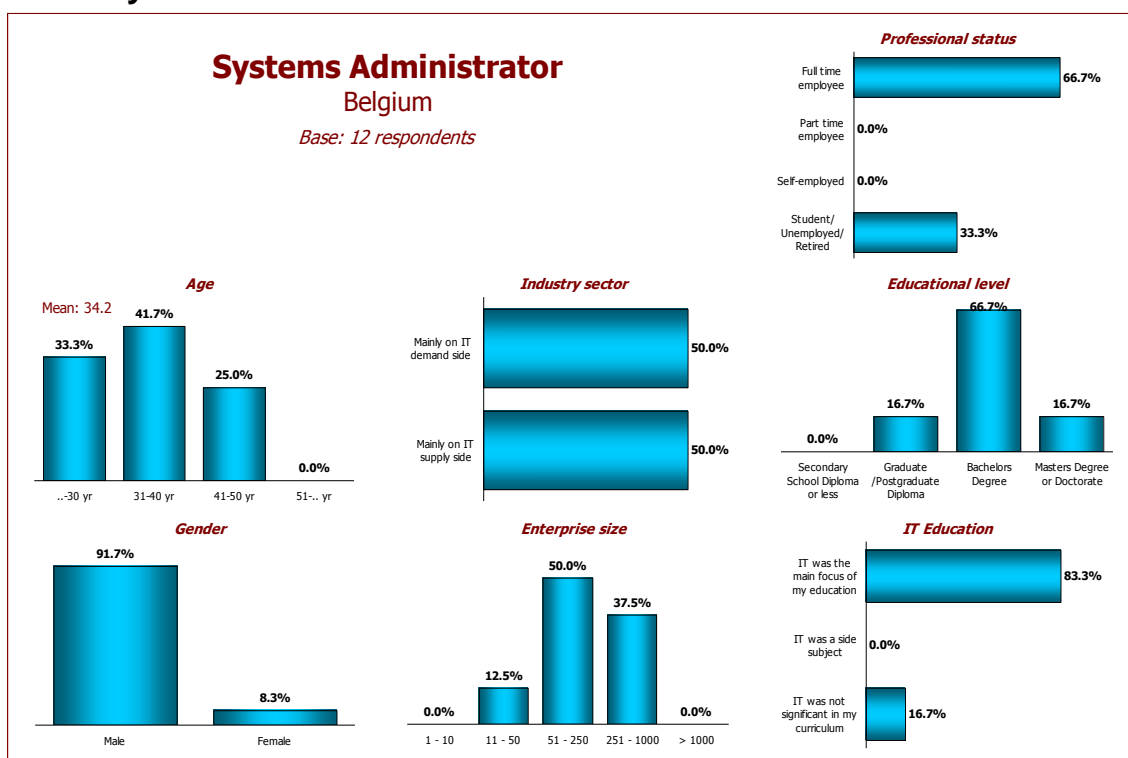


Figure 46 Proximity Profiles - Systems administrator

9.2.8 Technical Specialist

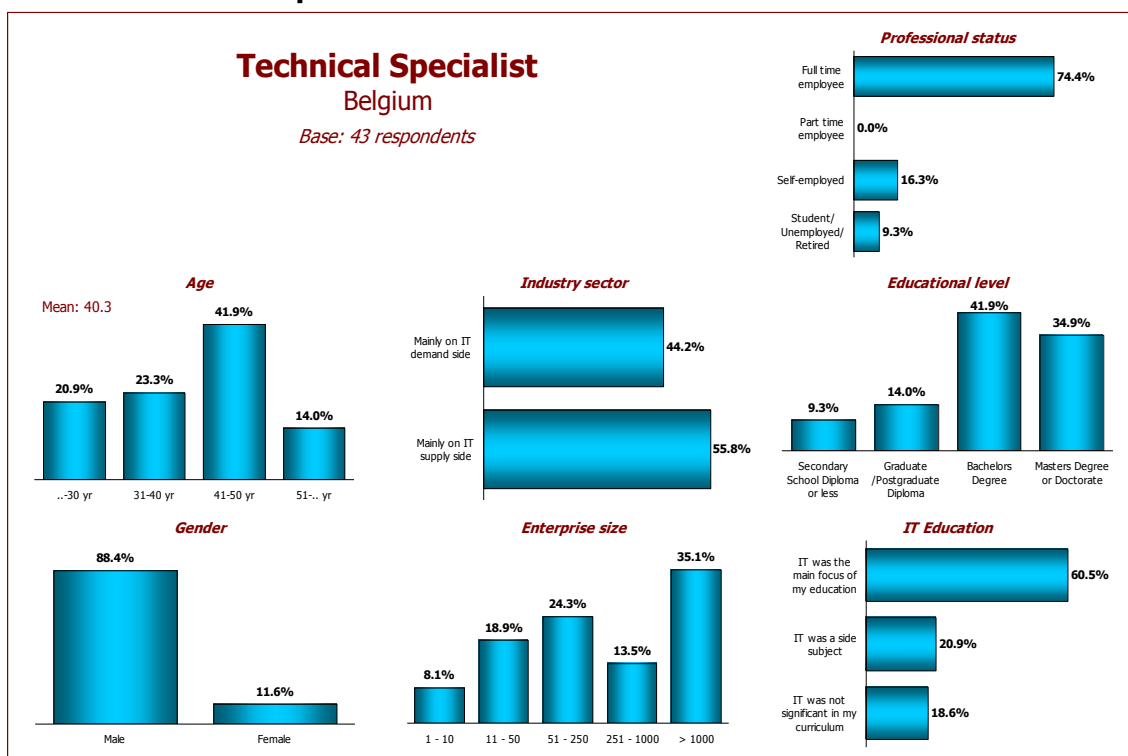


Figure 47 Proximity Profiles - Technical specialist

9.2.9 Project Manager

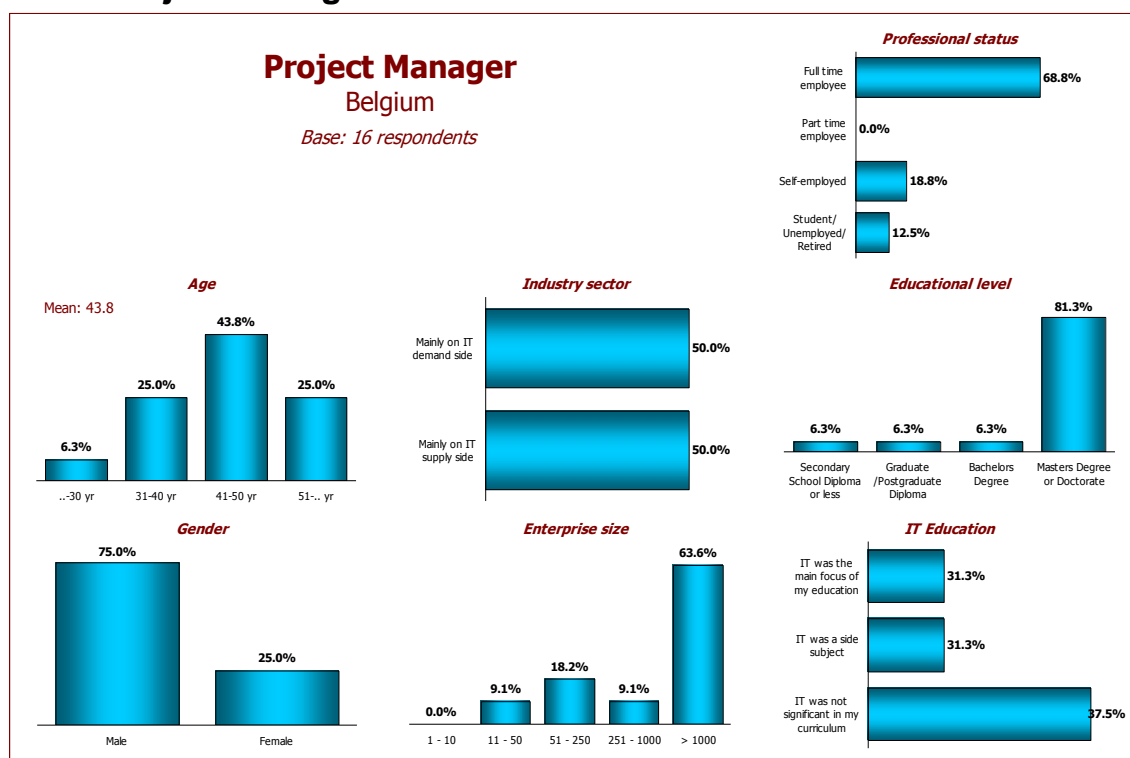


Figure 48 Proximity Profiles - Project manager