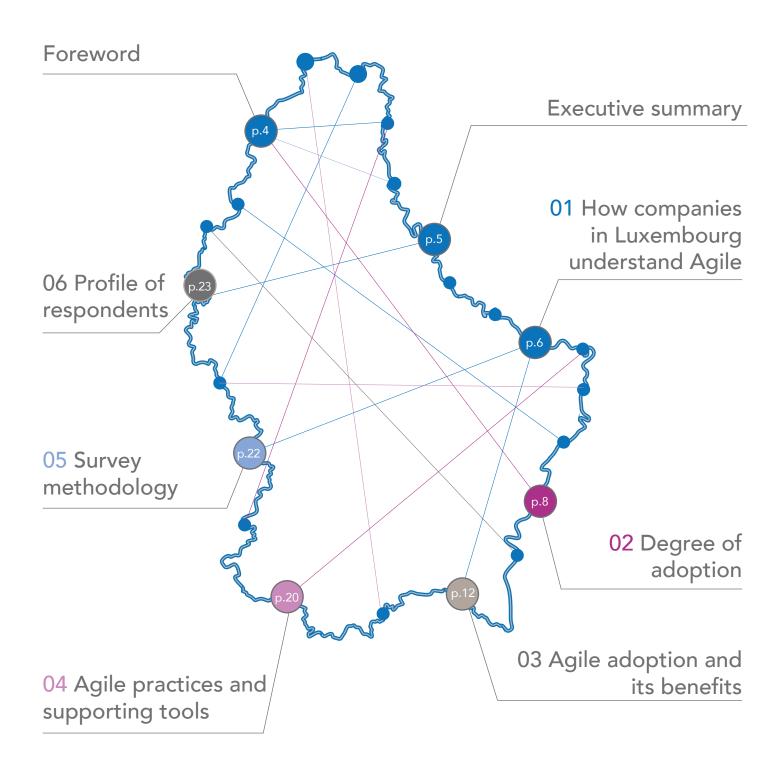


Contents



Foreword

After five years of collaboration we, PwC Luxembourg and the Luxembourg Chapter of the Project Management Institute (PMI), have decided to group our resources and experience and launch a study on the practice of project management. We particularly focus on how and to which extent the concept of 'Agile' is embedded in companies in Luxembourg.

Agile is a mindset that is more and more frequently used to achieve earlier concrete results from projects and programmes in a more collaborative, interactive way. There is a lot of literature about the way it works, worldwide and in Luxembourg. The reason why we have, however, chosen this topic is that we don't know precisely how well Agile is integrated within companies in Luxembourg.

In this report, we put forward the results of our research, hoping to shed more light on the topic.

We would like to take the chance and thank all respondents for taking the time to share their thoughts.

Enjoy your reading,



Liane ElbertsenPresident of the PMI Chapter in Luxembourg



Thierry KremserPartner at PwC Luxembourg

Executive summary

Originally, Agile is a group of software development practices based on iterative and incremental development, where requirements and solutions evolve through collaboration between self-organizing, cross-functional teams. It promotes adaptive planning, evolutionary development and delivery. It also encourages rapid and flexible response to change. In the last few years many organisations have started adopting Agile practices to reap their benefits, not just for software development purposes, but for the company as a whole. With the accelerating pace of change, companies are trying to increase their agility.

This study reveals to what extent Agile is embedded in Luxembourg's multi-cultural companies. The topics included in the study are: the level of adoption and adoption barriers vs facilitators, the understanding of Agile within the organisation, as well as the Agile practices used.

Here are our key findings:



Most of the surveyed companies use Agile in one way or another; however, the adoption of Agile is mostly at the level of initiation and experimentation.



By adopting Agile, companies expect first to reduce the time-to-market of new products and/or services.



The current usage is mostly within the IT and PMO functions; a small percentage (15%) has integrated Agile within the overall organisation's business.



The barriers to adoption cited most are a lack of Agile skills, a culture rooted in traditional methods, resistance to change and lack of Senior Management sponsorship.



Increased collaboration and communication between functions is the most important benefit that companies experience today: Agile is a silo breaker within organisations.

training to the project teams, creating cross-functional



The most mentioned challenge with Agile, on a day-to-day basis, is the coordination of tasks.



communities and deploying collaborative tools.

When it comes to Agile practices, Scrum is by far the

Companies facilitate Agile adoption by providing



Companies in the early phases of Agile adoption typically start with the introduction of a Scrum Master, a Product Owner and the implementation of Proof-Of-Concept (POC).

Agile has become an important subject when it comes to delivering change in Luxembourg. Its practices are, however, still experimental and far from being industrialised. However, Luxembourg's level of adoption of Agile is comparable to the progress made in other countries.

most used, followed by Kanban.

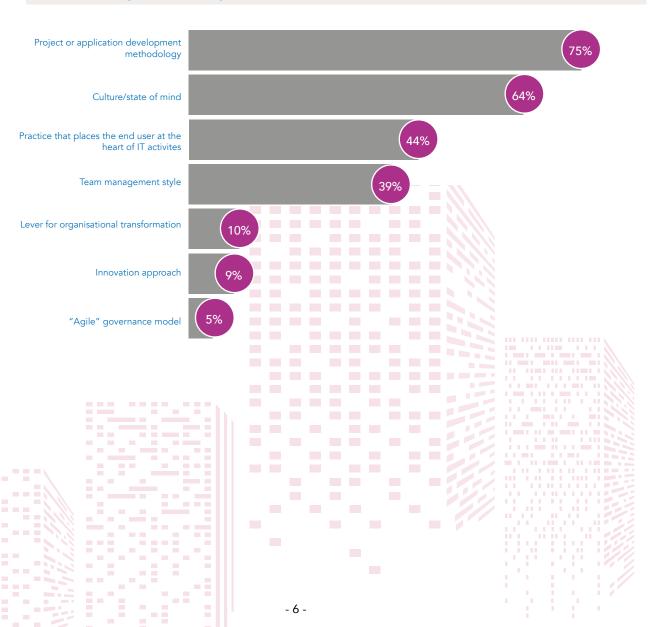
¹ For further details, please refer to the 10th (2016) and 11th (2017) Annual State of Agile Reports published by VersionOne.

1

How companies in Luxembourg understand Agile

The Agile Manifesto states that Agile is about individuals and interaction; it is a working product, stirring customer collaboration and responding to change. Companies in Luxembourg define Agile in line with the Agile Manifesto, being a project methodology, culture, mindset and practices placing the end-user at the heart of the activities.

What does Agile mean to you?



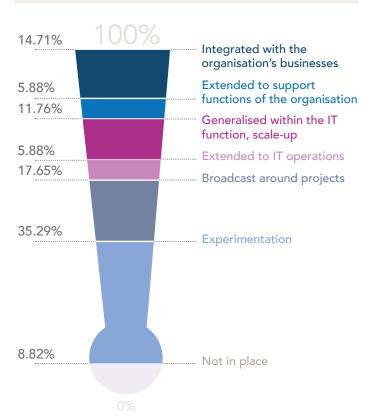


Degree of adoption

Agile adoption in Luxembourg is mostly in initiation and experimentation phases, sponsored by IT.

In Luxembourg, most companies use Agile or some of its principles. However, the adoption of Agile remains at initiation and experimentation levels. In addition, the adoption of Agile is higher for small and mid-sized companies (< 500 FTE) than for large companies (> 501 FTE).

What is the level of adoption of Agile in your organisation today?



Given Agile's origins, it is not a surprise that most companies start their Agile practice in the IT area. In 51% of the organisations adopting Agile, the IT department backs its implementation. Also, Agile is widely considered as an IT matter, and largely spread in the IT functions rather than at company level.

A small percentage (15%) has integrated Agile within the overall organisation's business – those are at the forefront of Agile adoption. Most of these companies are small or midsized.

Which functions in your organisation most strongly sponsor the implementation of Agile?



Areas of application

Companies apply Agile mainly in the mobile and digital areas, as well as more generally for the creation of new services and/or products or at the initiation step with Proof-Of-Concept (POC).

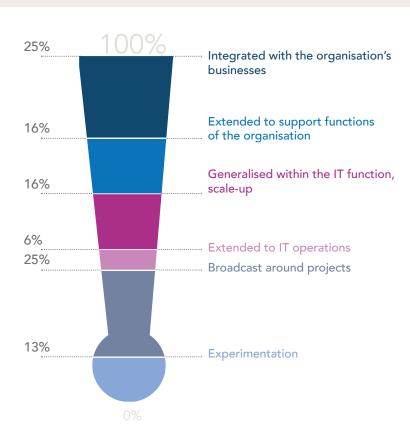
What are your main application areas of Agile?



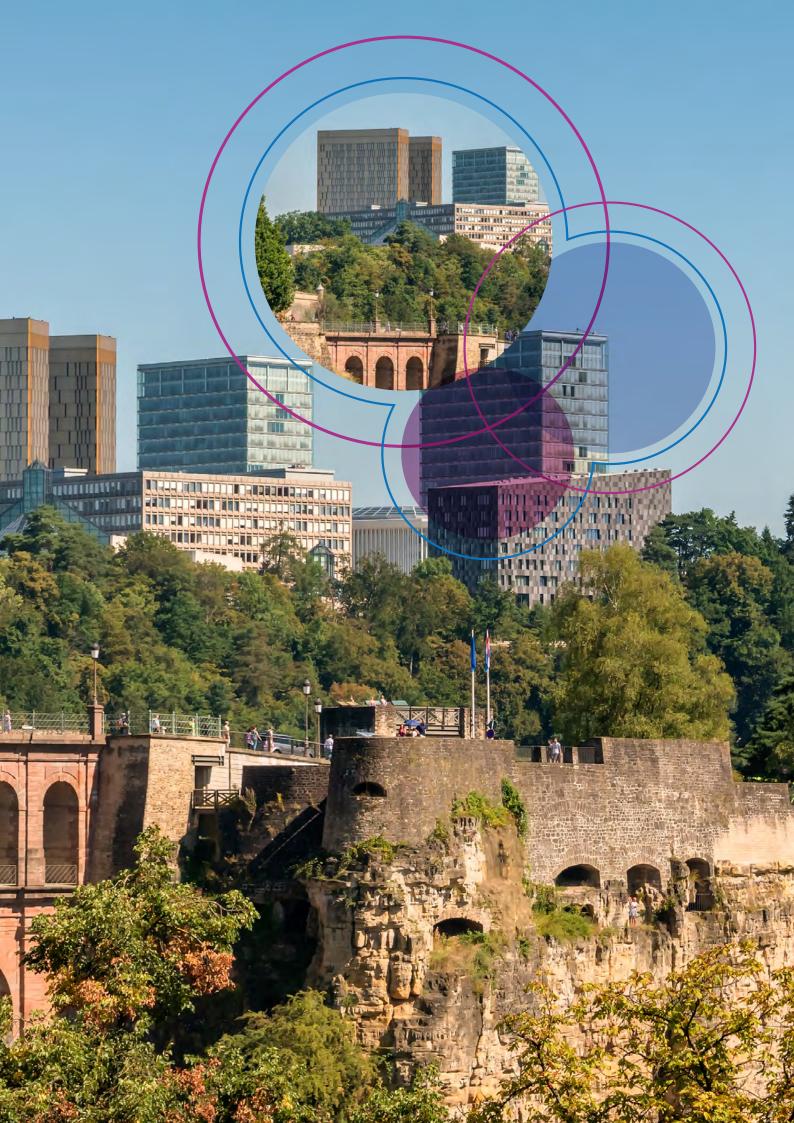
From experimentation to a mature, company-wide Agile practice

When looking ahead, companies in Luxembourg expect to have a much more mature Agile practice in the following years. They are very ambitious in terms of Agile adoption in the near future. A quarter of the respondents expects that their PMO function will integrate Agile in their programme as well as project portfolio management in the next two-three years. Moreover, a quarter expects Agile to be integrated at the entire business level.

At what level of adoption would you expect to be in 2-3 years from now?







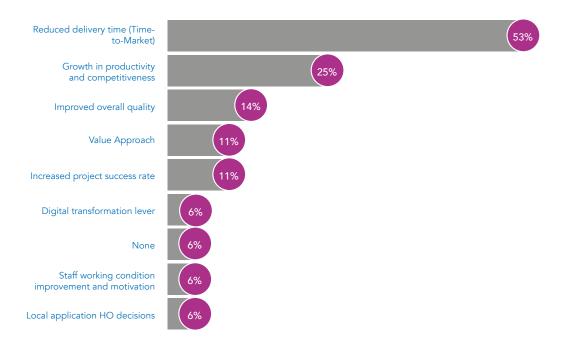
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Agile adoption and its benefits

Expected benefits and measurement of success

By adopting Agile, companies expect first to reduce time-to-market of new products and/or services. They also believe it will improve workforce productivity, as well as the overall quality of the delivered products and/or services.

What are the expectations of your organisation's management concerning Agile implementation?

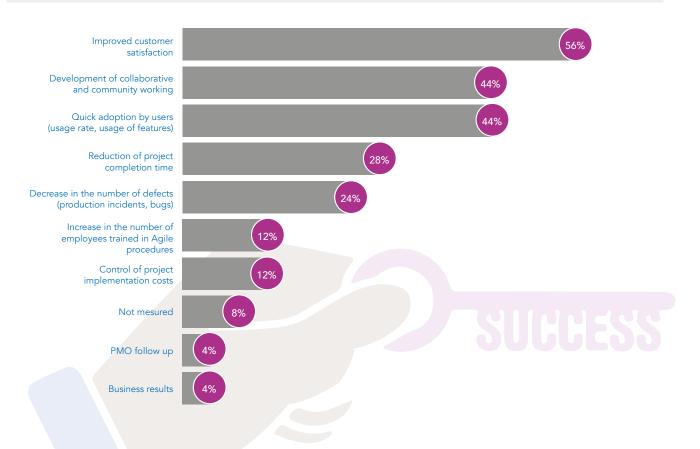


Agile often reduces time to market, as it focusses first on the most important requirements to implement. Well-known concepts such as the Minimum Viable Product allow for a faster time to market.

However, when considering similar scopes, it is true that Agile does not systematically reduce the time to market. The whole project can sometimes even last longer, as people involved in the project accept changes that might take more time.

After adoption, companies measure the success of their Agile efforts in terms of improved customer satisfaction, development of collaborative and community working and quick adoption by users. It is surprising that other measurements, like the reduction of project completion time, only come on the fourth position despite being among top expectations.

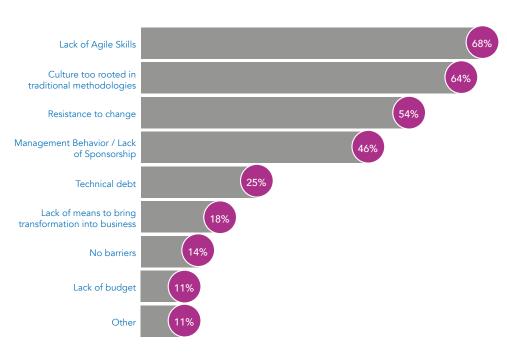
How do you measure the success and benefits of your Agile efforts?



Barriers to Agile adoption

As with the introduction of all new concepts, companies often experience some hurdles when introducing Agile. Old habits and behaviours rooted in traditional techniques, coupled with resistance to change and a lack of sponsorship from Senior Management, are the main obstacles that companies need to overcome. There is no correlation between the size of the company and the barriers to Agile adoption: all companies, regardless of size, face the same obstacles.

What barriers to the adoption of Agile did you encounter/are you encountering?



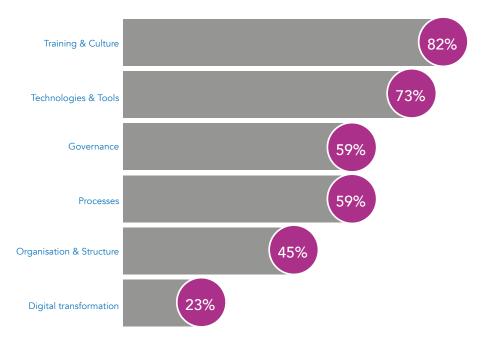




A roadmap as a tool to set up Agile within the organisation

60% of organisations seem to recognise the necessity of using a roadmap for setting up and implementing Agile in their functions. This roadmap generally includes work streams related to training & culture, technologies & tools, governance, processes, as well as organisation & structure.

If there is a roadmap for setting up Agile in your organisation, which of the following dimensions does it include?



A dialogue and cross functional collaboration as most important benefit from Agile

Establishing a regular dialogue between functions (79%) and the having the continuous involvement from the enduser (50%) are the two most important ways in which a company expects to create value.

Top two ways companies are creating added value

79%

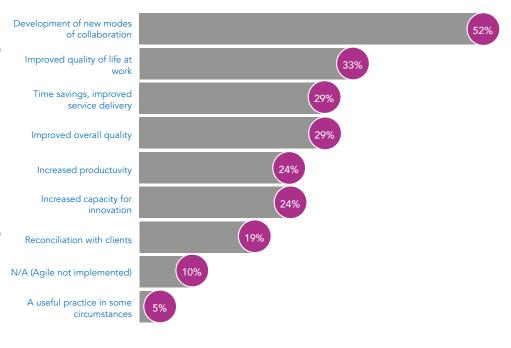
cross functional collaboration

50%

continuous involvement from the end-user

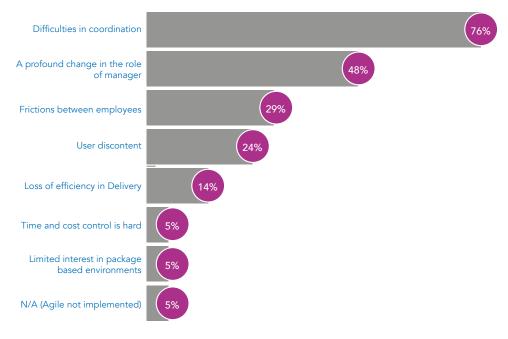
The feedback we have received on Agile shows that practice is aligned with this expectation. The participants cited the new way of communication and collaboration as the most important benefit from the use of Agile. Agile breaks the silos within an organisation.

What is your experience feedback related to the set-up of Agile? (Positive feedback)



Challenging and facilitating factors

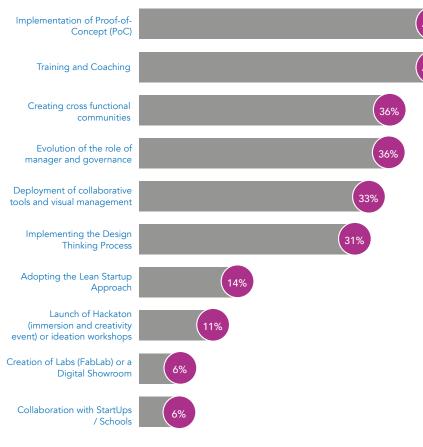
What is your experience feedback related to the set-up of Agile? (Negative returns)



The most mentioned challenge with Agile on a day-to-day basis is the coordination of tasks and the profound change of the role of (project) manager.

Regarding the deployment of Agile in the organisation, participants in our survey have identified many factors that could facilitate its adoption. Companies mostly revert to providing training to the project teams, creating cross-functional communities and deploying collaborative tools.

What do you think most favours the adoption of Agile? (Please select the three most important areas according to your opinion)



Launch of Hackaton (immersion and creativity event) or ideation workshops

Creation of Labs (FabLab) or a Digital Showroom

As a result, respondents
believe that if they had to reboot the implementation of Agile, more attention would have been given to people management, training and coaching.

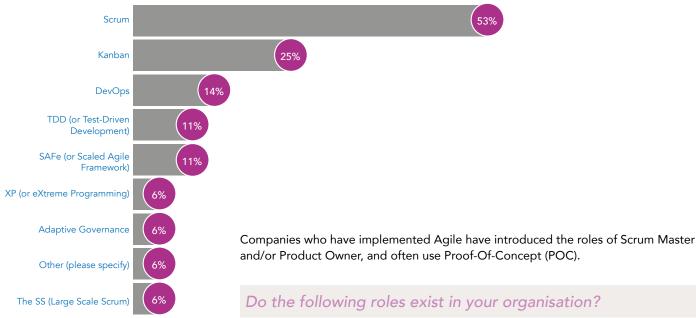


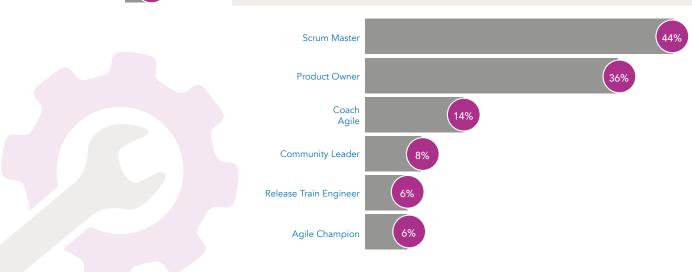
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Agile practices and supporting tools

In line with the overall market usage of Agile practices, Scrum is the most popular in Luxembourg (53%), followed by Kanban (25%) and DevOps (14%). Large Scale Scrum is not applied at all. As Agile is a group of complementary and not exclusive practices, it is common that organisations use several practices: 22% of the respondents use more than three different practices.

What Agile good practices do you currently apply?





To support collaboration between teams, SharePoint is the most used collaborative tool in Luxembourg. The use of task automation tools is less widespread, but most companies who implemented release automation have also implemented automated testing. New tools such as service orchestration or bug analysis don't seem to be used.

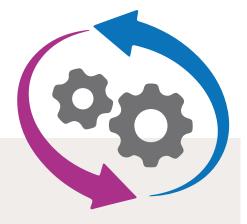
What essential technological bricks have you implemented to apply the Agile approach (Task Automation Tools))?

| | | TOP | |
|------|---------------------------|------------------------------|---------------------|
| | | | |
| Rank | Task automation tools | Collaborative tools | Technical Platforms |
| 1 | 50% SharePoint | 41% SharePoint | 31% API Platforms |
| 2 | 33% Automated testing | 33% Videoconferencing / Chat | 19% Cloud Platforms |
| 3 | 31% Release automation | 11% Gates | OpenData Plastforms |
| 4 | 17% Service Orchestration | 11% Other | 8% Other |
| 5 | 8% Bug analyzers | 8% None | |
| 6 | 6% Self- Provisioning | | |
| 7 | 3% Continous development | | |
| | | | |

Survey methodology

A list of 398 potential respondents comprising members of the PMI Luxembourg Chapter and relations of PwC Luxembourg was designed to serve as the survey's sample basis.

The questionnaire had 30 questions exploring four areas of interest regarding Agile:



19

Degree of adoption by companies,

<u>29</u>

Interpretation and understanding of Agile,

<u>3</u>€

Methodology of implementation,

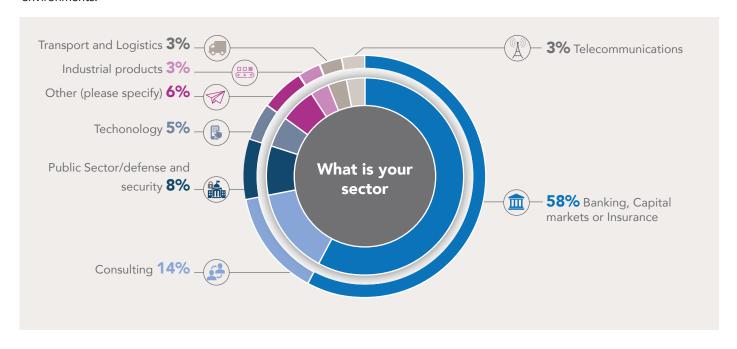
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Evaluation of results and lessons learned.

A total of 33 responses were received corresponding to a response rate of 8.3%.

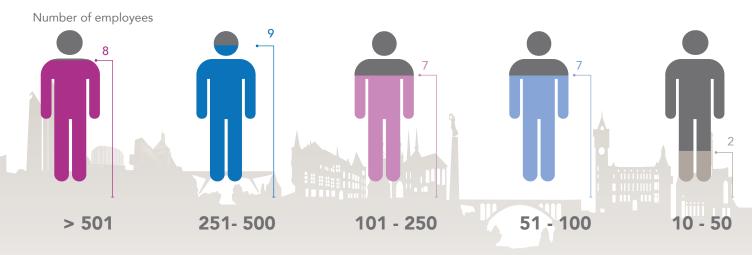
Profile of respondents

Overall, the composition of the survey sample is representative for the Luxembourgish market in terms of sectors, company sizes and multi-cultural working environments.

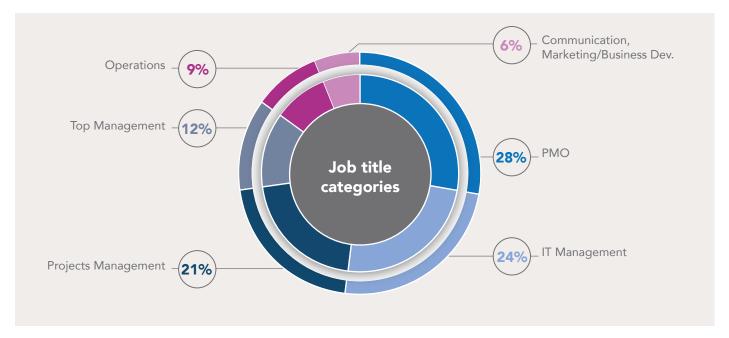


Also, the sample covers all company sizes with a small majority of respondents coming from organisations with more than 250 employees.

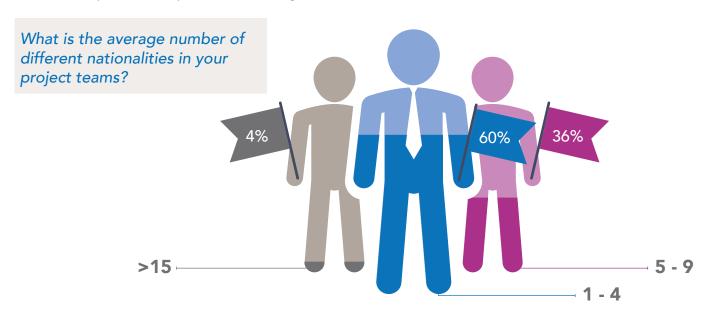
What is the size of your organisation (FTE)?



Most respondents work in a PMO or IT Management function. This is in line with the survey's target profile. The study's objective is to look at Agile from a company-wide and not only from a pure IT perspective. PMO and IT are in general the best aware of degree of adoption of Agile and the ones who initiate the introduction of Agile and deal with the implementation and daily practice of Agile.



The research also showed several interesting facts about Luxembourg as a multicultural market place. 36% of the respondents have more than five nationalities in their project teams: the multinational nature of the project teams reflects the diversity of nationalities present in companies in Luxembourg.





About the Project Management Institute (PMI) Founded in 1969, PMI is the leading not-for-profit professional me

Founded in 1969, PMI is the leading not-for-profit professional membership association for the project management profession. PMI advances careers, improves organizational success and further matures the profession of project management through globally recognized standards, certifications, resources, tools, academic research, publications, professional development courses and networking opportunities.

As local Chapter of PMI since 2010, the PMI Luxembourg Chapter has as its mission to provide project management professionals in Luxembourg a platform for knowledge sharing and networking.

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