



All questions and
answers and
Additional insights

TM Forum Revenue Assurance Team

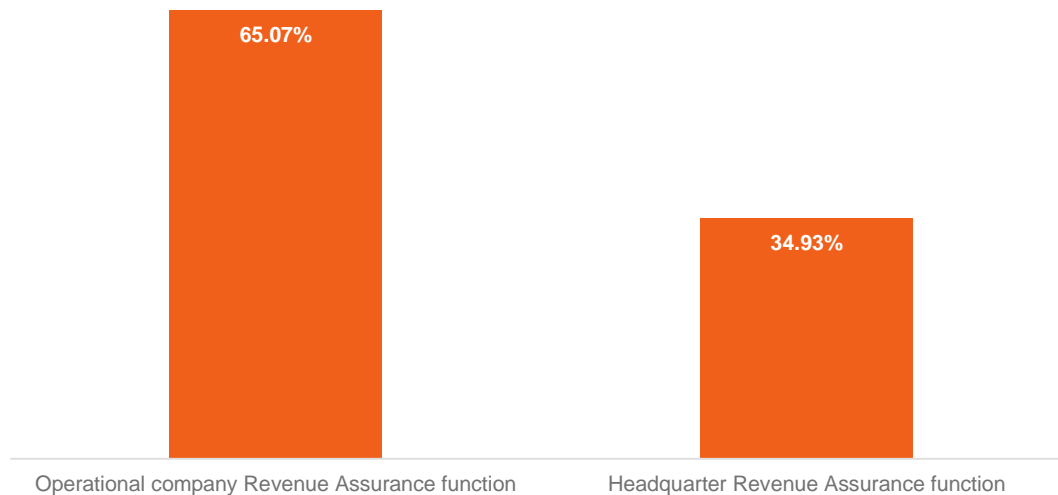


All questions and answers

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Respondent from Operational Company vs. Headquarter function - “1. What type of Revenue Assurance function do you represent?”



About 2 out of 3 respondents work in an operational company.


Remark: The questions of this survey were designed to cover a wide range of strategic and operational aspects.

146 valid responses

Separate RA department -

“2. Does a separate Revenue Assurance department (organizational unit) exist within your company?”



 80% have an RA department (org unit). The majority of organizations without an RA department are led in the Finance organization. Others are led business support, quality and process as well as Product Management organizations.

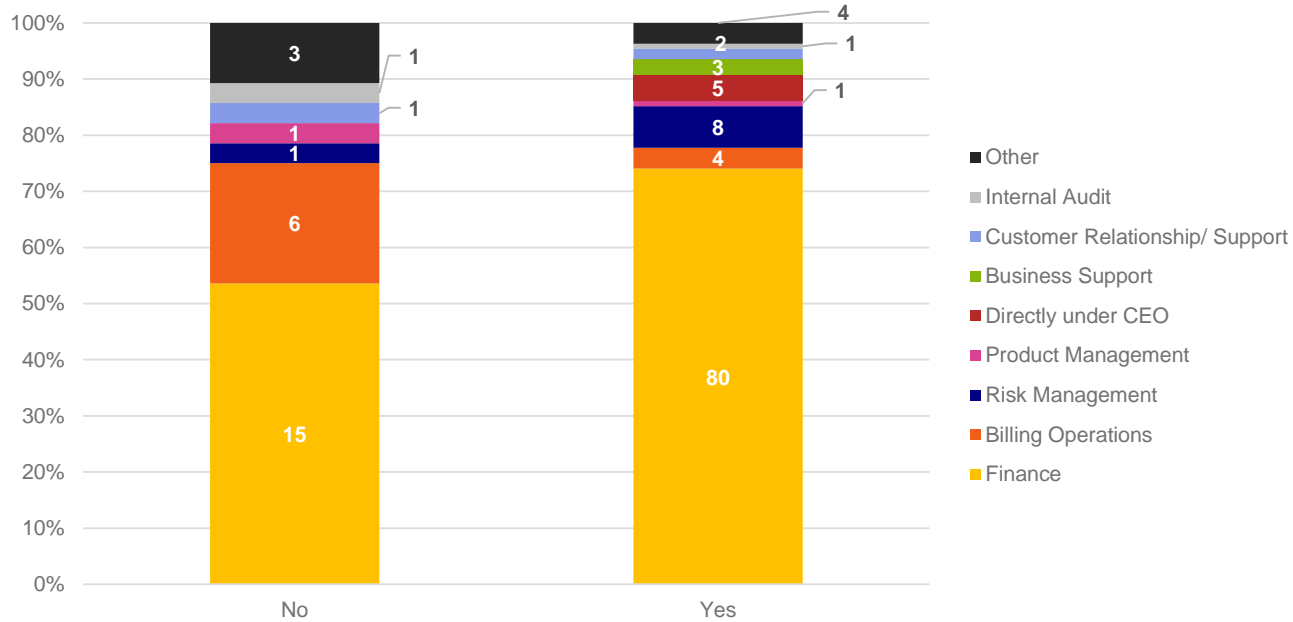
All level 5 maturity cases (highest level) have a separate organization unit for Revenue Assurance. 65% of the organizations with a separate RA department have maturity levels 3-5 vs. 55% where no separate organization exists.

2015: 91%. 2013: 81%

146 valid responses

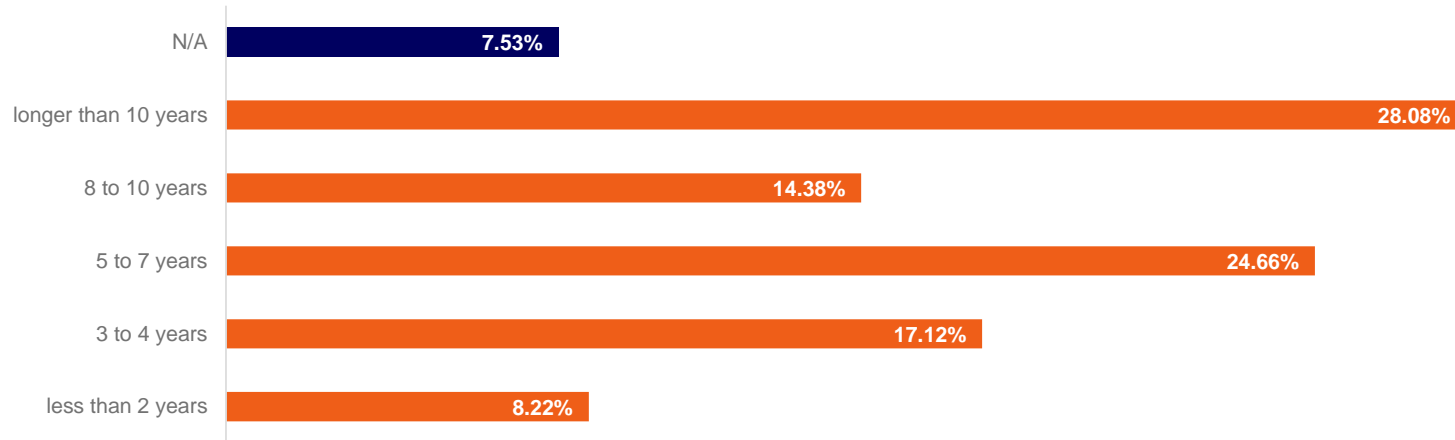
Separate RA department – Additional insights

Location of RA leadership in cases of high maturity (Level 4) where not separate RA organization



Almost 50% of the RA functions without a dedicated RA organization are located in Product Management and Billing operations. The majority of these organizations are distributed.

Years of existence of RA department- “3. For how long has the Revenue Assurance department been in existence?”

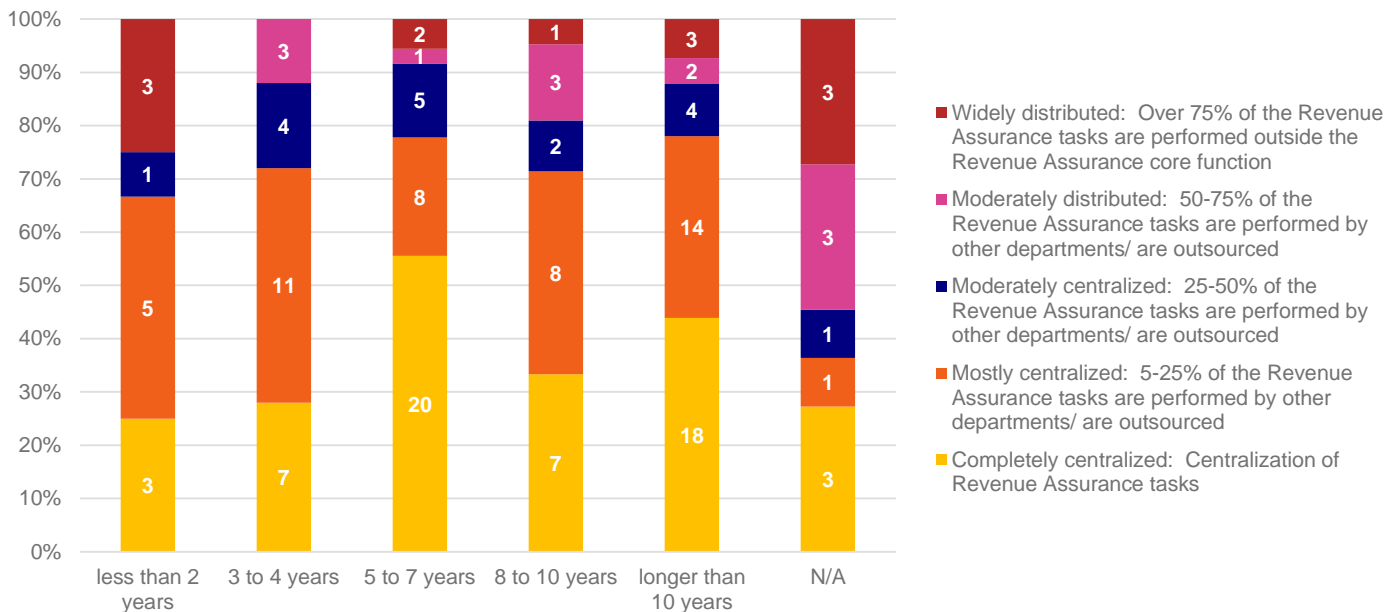


2015: 17% less than 3 years, 26% 4-6 years, 16% 7-9 years , 39% over 9 years

146 valid responses

Years of existence of RA department – Additional insights

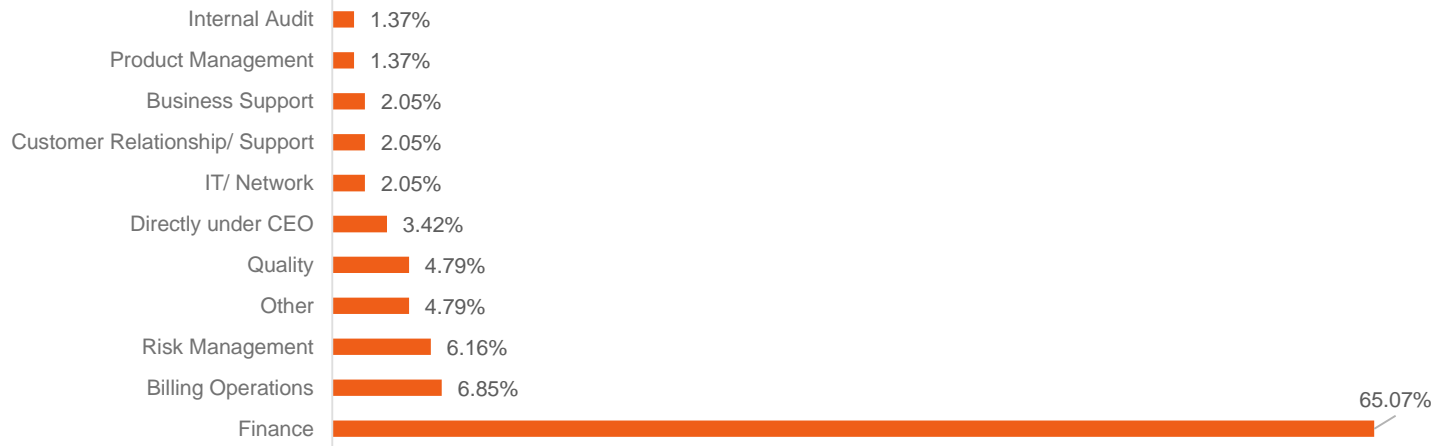
Years of existence vs. centralization level of the RA function



Slight correlation of years of existence of the RA function vs. the level of centralization (becoming more centralized with age). However, there are indications of increasing distribution levels starting from 5 years onwards.

Organizational location of RA lead -

“4. Where is the lead of the Revenue Assurance department positioned within your organization?”



65% of the RA functions are led in the Finance organization.

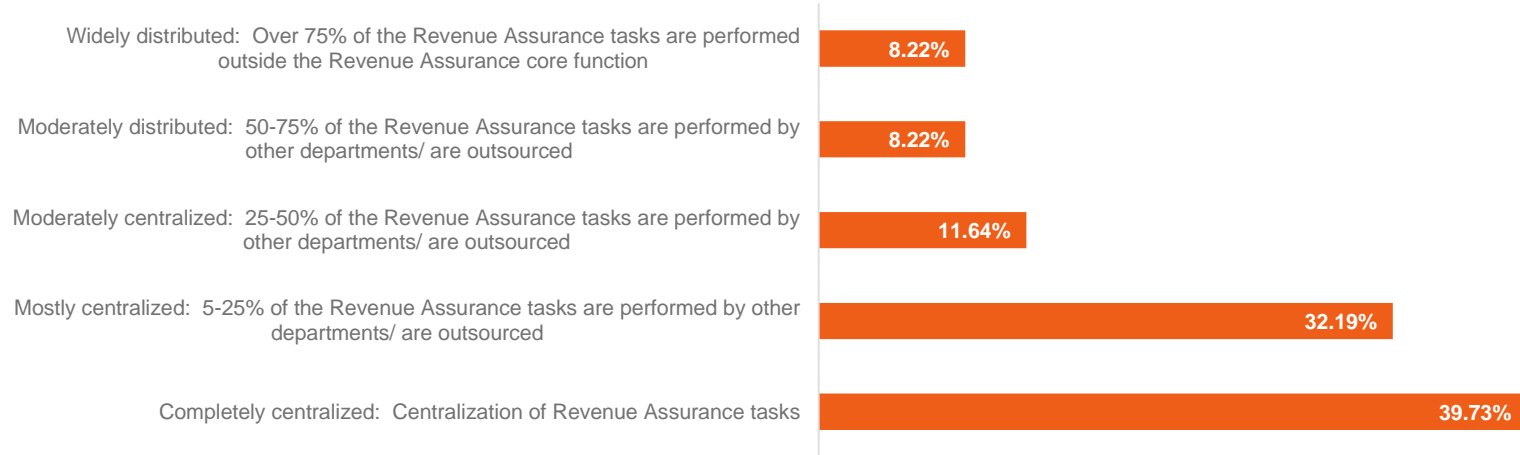
7 out of 10 of the higher maturity cases (levels 3-5) were reported in Finance and Risk Management functions. Maturity 5 cases are in Finance, Risk Management and directly under CEO level only. The answer option “Quality” is raising. But such cases were only reported in Africa and Asia. These RA organizations have a lower average maturity level and exist on average for 5 years.

2015 survey: 72% in Finance, 5% in Risk Management rest in “others”. 2013: 74%

146 valid responses

Level of RA function distribution -

“5. What is the level of distribution of your Revenue Assurance Function within your company?”



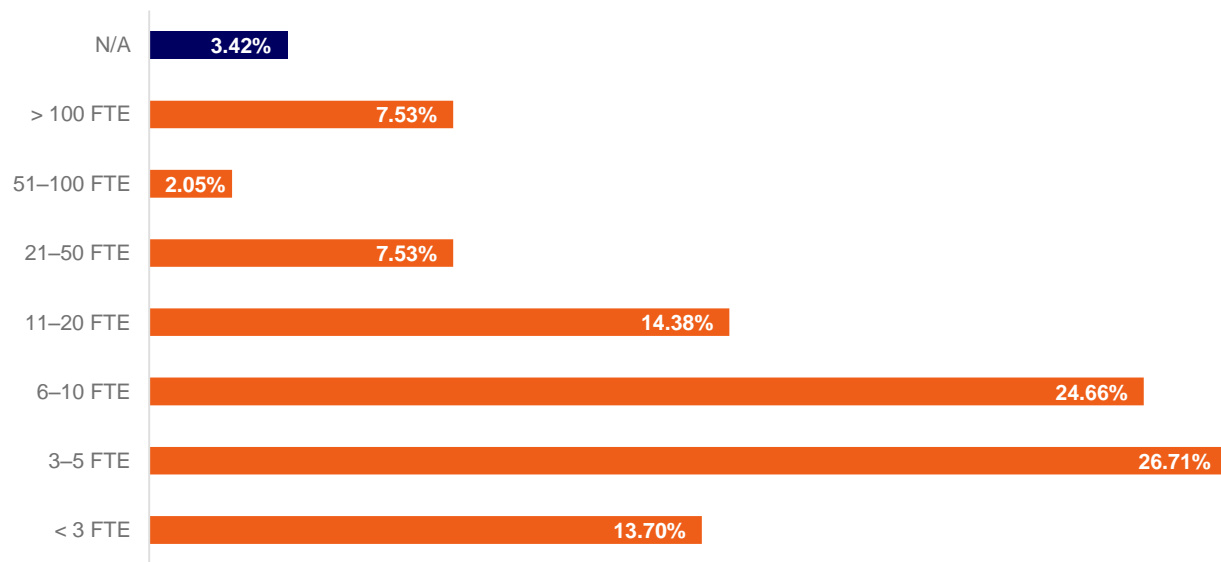
7 out of 10 Revenue Assurance functions are mostly or completely centralized.

Higher maturity levels were reported in completely centralized, moderately centralized and moderately distributed organizations. Level 5 was reported only in completely and mostly centralized RA organizations.

146 valid responses

Number of FTEs on RA activities -

“6. How many people (in FTE - Full Time Equivalent) work on Revenue Assurance activities?”

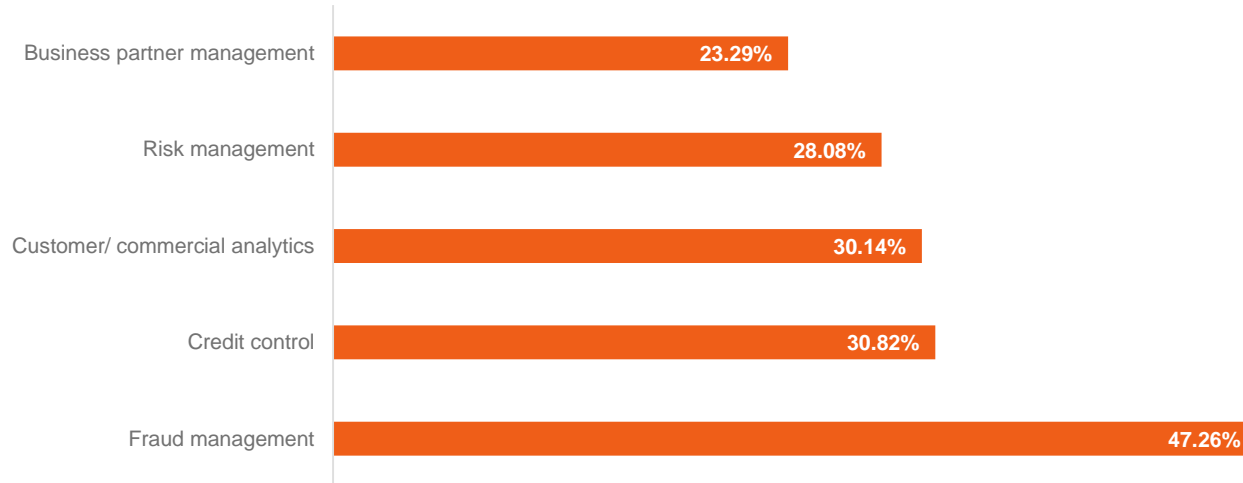


RA 2015 survey: 20% <3, 21% 3-5, 20% 6-10, 14% 11-20, 15% 21-50, 8% over 50
2013: 50% smaller than 5

146 valid responses

Other roles performed by the RA function outside primary RA activities

“7. What other roles are performed by the Revenue Assurance function that you consider are not primary RA activities?”

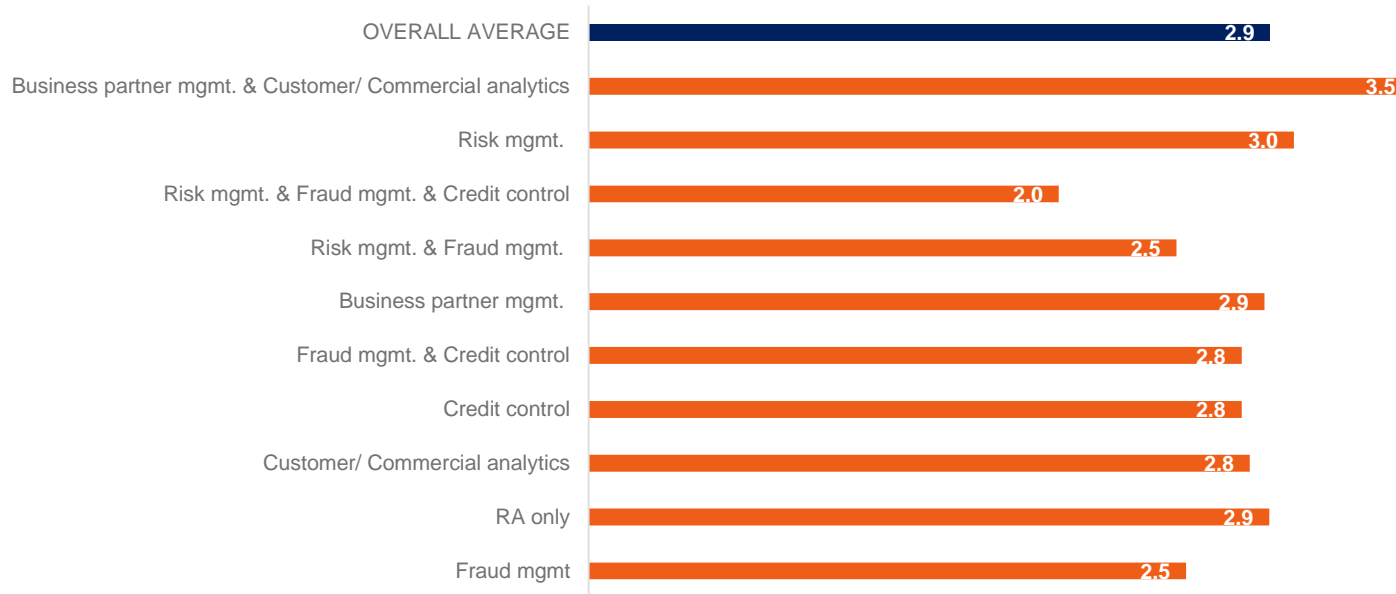


2015 survey: risk management 23%, fraud 30%, credit control 13%, business partner management 23% (customer /commercial analysis: new in 2016)

146 valid responses

Other roles performed by the RA function outside primary RA activities – Additional insights

Most frequent “Role profiles” correlated with maturity



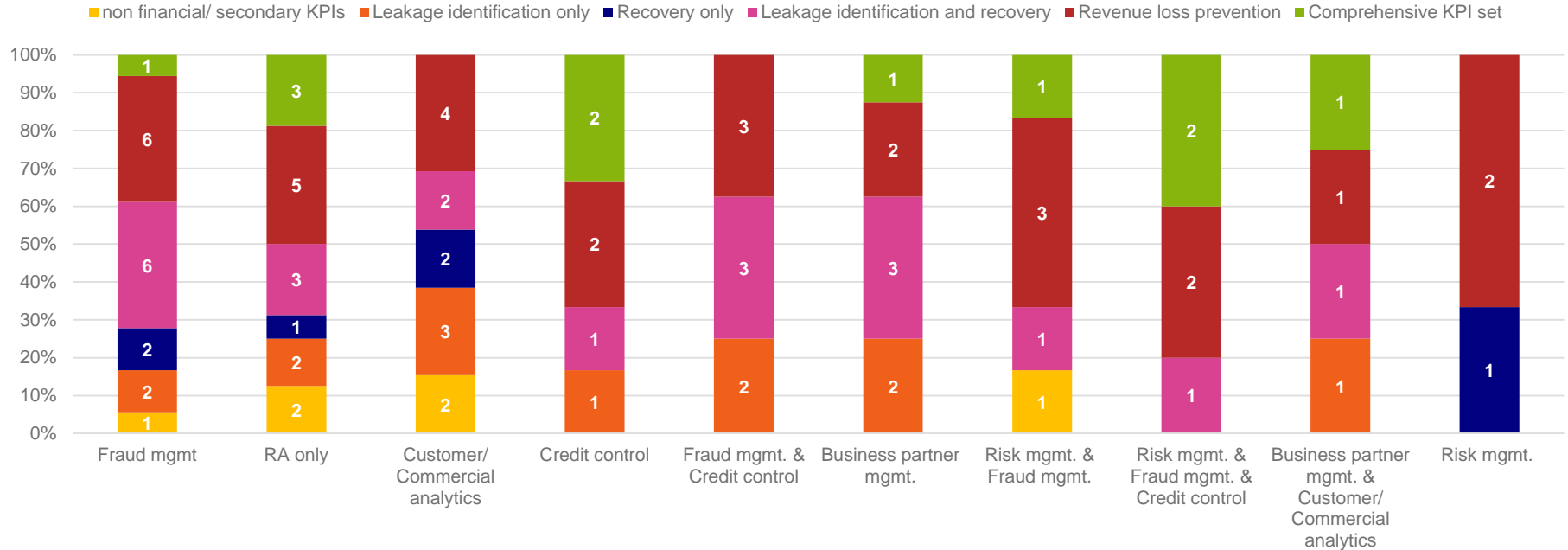
The highest average maturity scores were reported for RA organizations who perform business partner management and customer/ commercial analytics roles in extension to regular RA activities. Average maturity is the lowest for RA role combinations “Risk Management and Credit Control” and “Risk Management and Fraud Management” as well as Fraud Management scored the lowest average maturity levels. Remark: Role profile combinations with fewer than 5 occurrences are not displayed.

TM Forum Community Comments

More mature organizations have RA increasingly involved in non-traditional RA activities such as business partner management and commercial analytics to enable end-to-end business process coverage.

Other roles performed by the RA function outside primary RA activities – Additional insights

Most frequent “Role profiles” correlated KPI set type

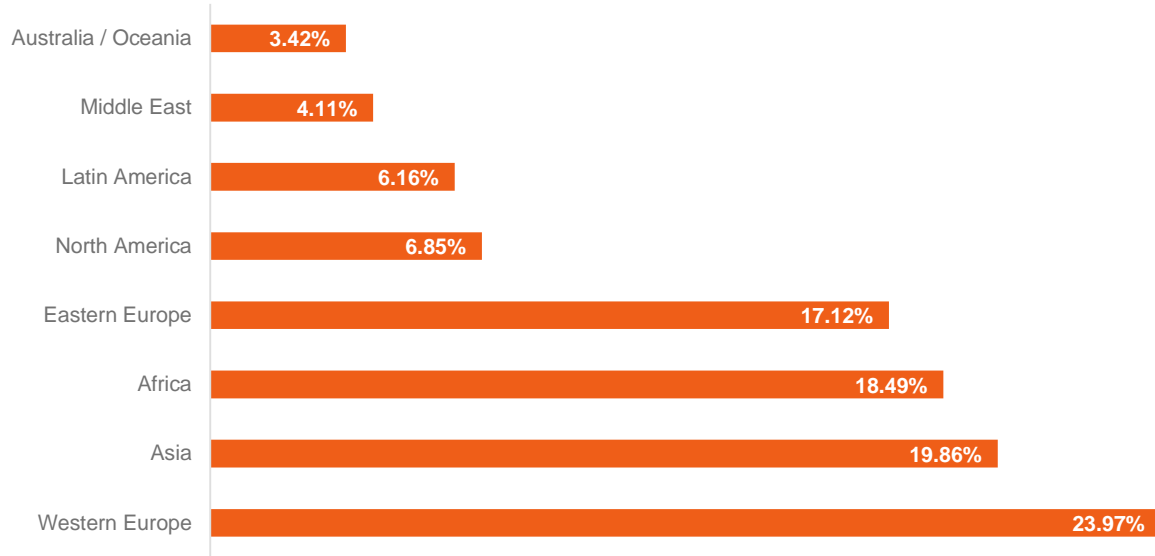


TM Forum Community Comments

Risk Management focused RA organizations use wider ranges of KPIs with more preventative characteristics.

Region of main operations

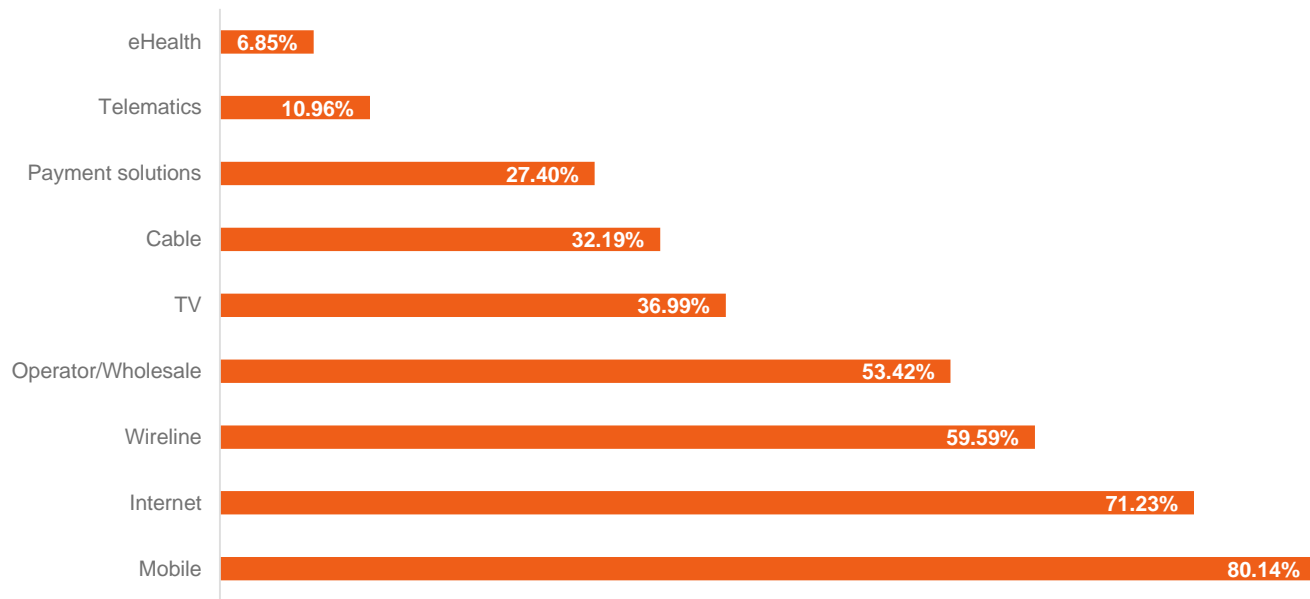
“8. What is the main geographical region in which your company operates?”



2015 survey: Western Europe: 26%, Latin America 21%, Asia 14%, Eastern Europe: 13%, Africa 12%, North America 7%, Middle east 7%, Australia/ Oceania 3%

146 valid responses

Lines of business - “9. What line(s) of business does your company have?”



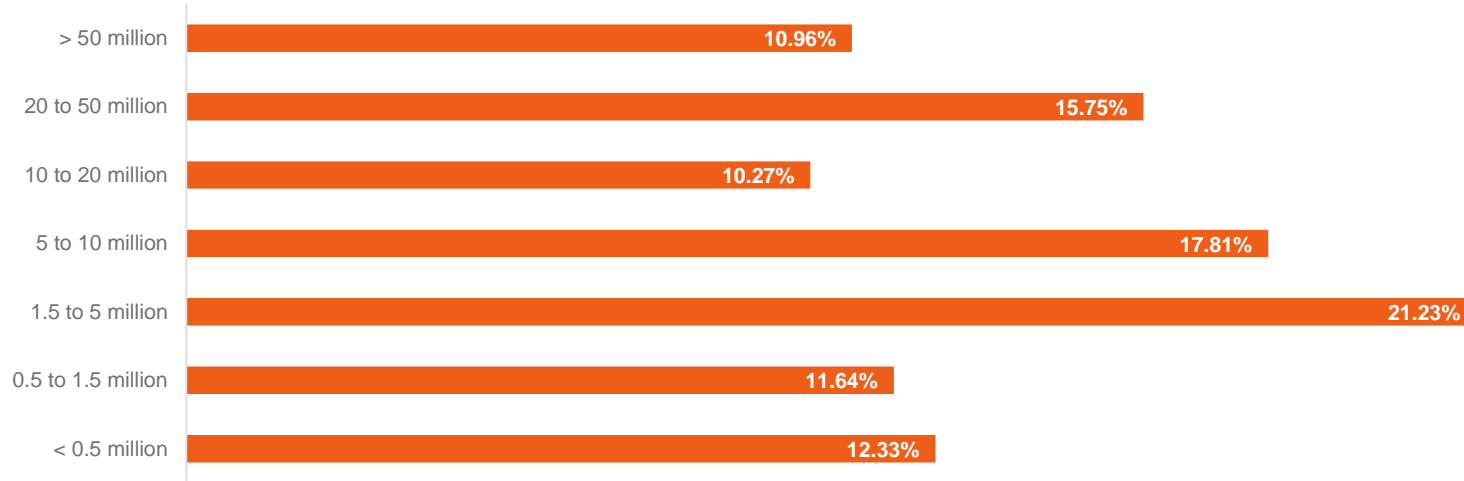
Most of the respondent's companies have multiple business lines. Only a handful of companies represent specialized Telcos e.g. in TV or other special/ new service areas.

[RA survey 2015: Wireline 53%, Mobile 86%, Internet 64%, cable 30%, wireline 53%, Other 13%](#)

146 valid responses

Number of customers (subscriptions) -

“10. How many customers (in millions) does your company have for subscription based services?”



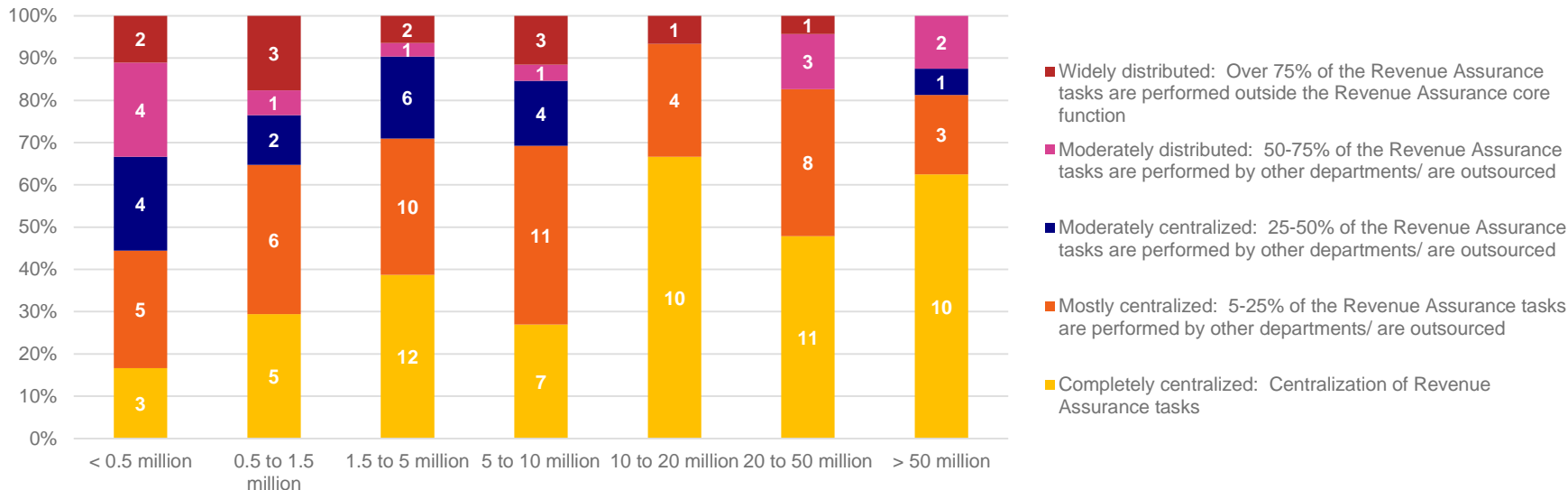
About half of the participating companies have above 5 million customers.

There is a slight correlation of maturity with the number of subscriptions. The majority of Level 5 maturity cases have been reported for 20M and more subscriptions.

146 valid responses

Number of customers (subscriptions) – Additional insights

Operator size (number of subscription customers) vs. level of organizational distribution of RA function



There is a slight correlation of the number of subscription customers vs. the level of centralization (becoming more centralized with size).

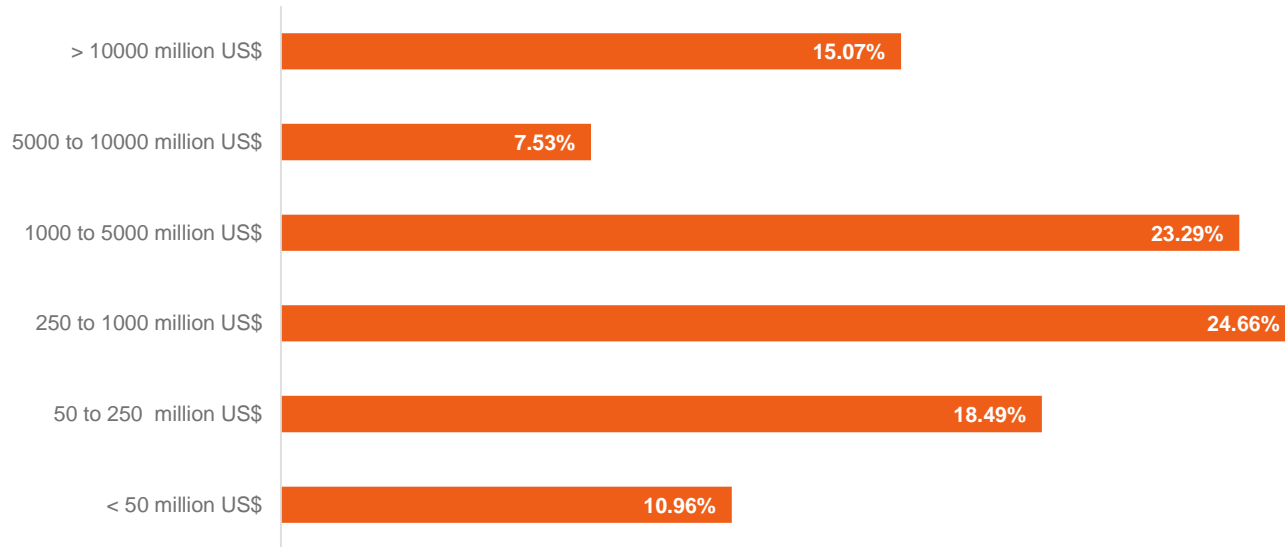
146 valid responses

TM Forum Community Comments

There are two main causes for RA decentralization. 1. Very low RA maturity, in this case RA activities are done by solitary heroes distributed across the organization. 2. Very high maturity in which RA is intentionally distributed across the organization. High decentralization of RA in small operators could be an indicator that the mature, highly decentralized RA vision has not yet become practice.

Annual revenues -

“11. What is the annual revenue (in million US\$) of your company?”

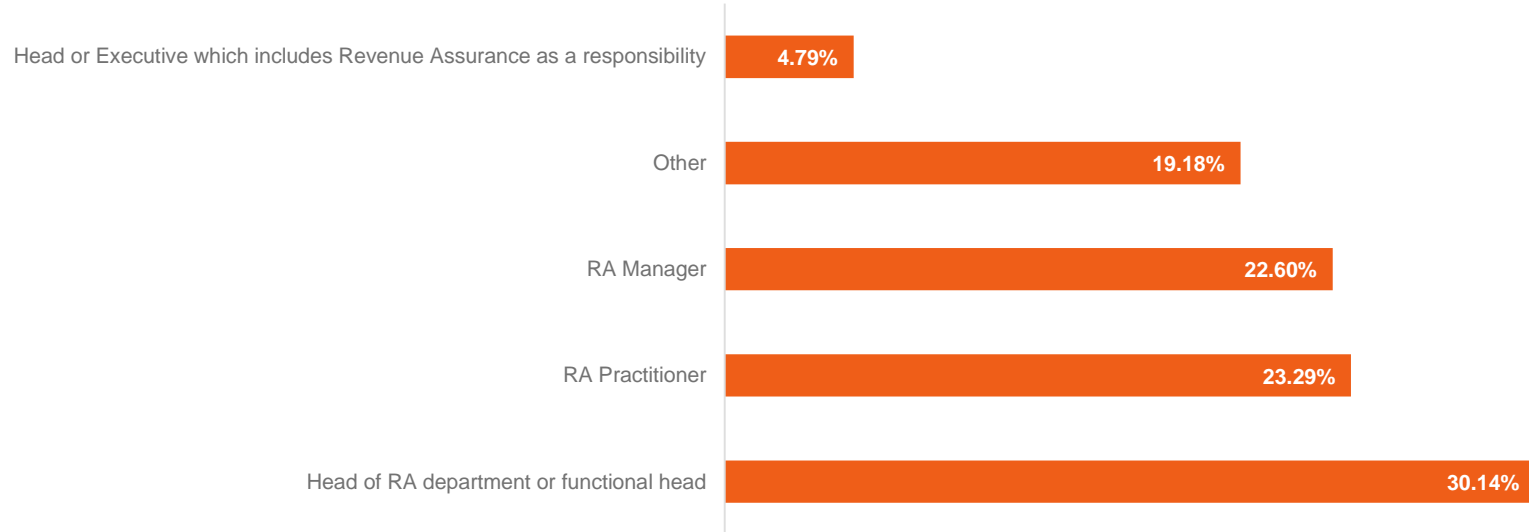


About half of the participating companies reported revenues above 1000 M\$.

There is a slight correlation of the amount of revenues with maturity. Level 5 maturity cases have been noticed in several of the revenue groups.

146 valid responses

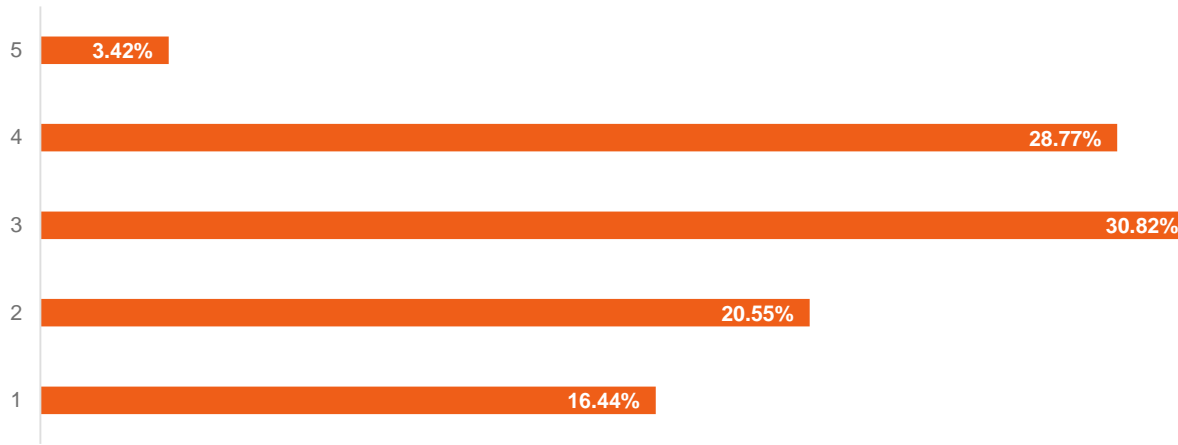
Respondent's position- "12. What is your position in your company?"



146 valid responses

RA maturity scores

“13. What is your overall RAMM2 maturity score?”



RA survey 2015 average score: 3,24 (2013: 3.3). Level 1: +9% (9% higher this year); Level 2: + 3%; Level 3: same; Level 4: -8%; Level 5: -4%

Remark: For maturity correlation purposes the detailed scores were rounded down to the next level e.g. 3.8 is rounded down to level 3 i.e. level 3 achieved. In appendix 2 (light benchmarking) the detailed scores were used. The rounding down effect is 0.2 points on average for the 37 affected respondents.

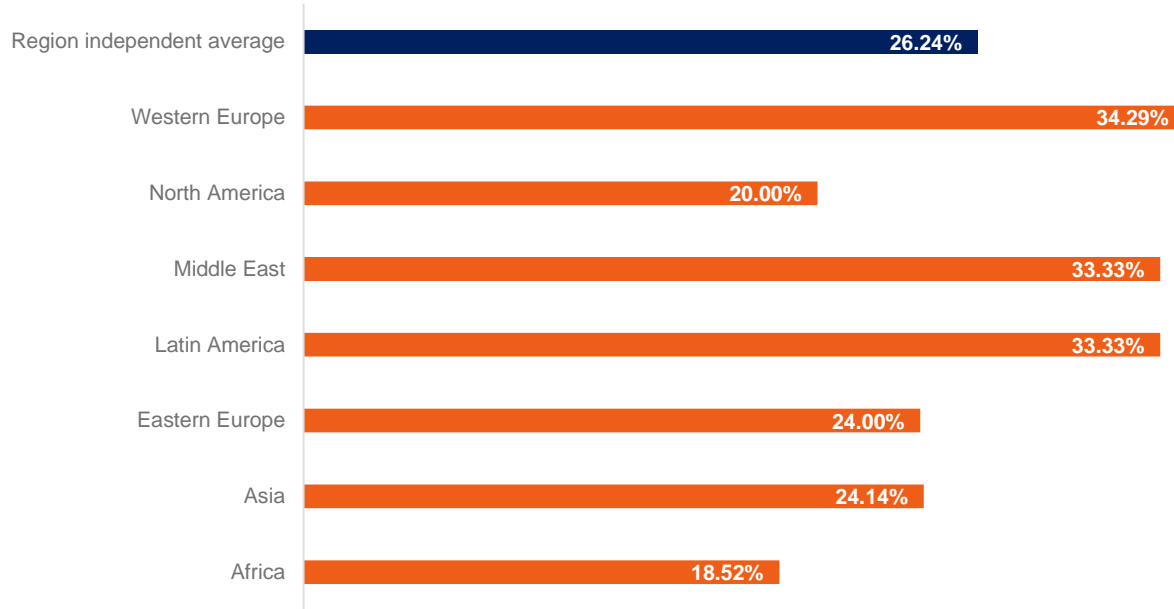
146 valid responses

TM Forum Community Comments

As compared to the 2014 and 2015 RA surveys participants stated on average more conservative overall maturity levels. Overall the change could be explained that the RA community is seeking better understanding of the key elements that drive business value and to increase maturity in a more strategic way. I.e. due to the exposure to the Revenue Assurance Maturity Model: RAMM v2 was provided for free for the assessment.

RA maturity scores – Additional insights

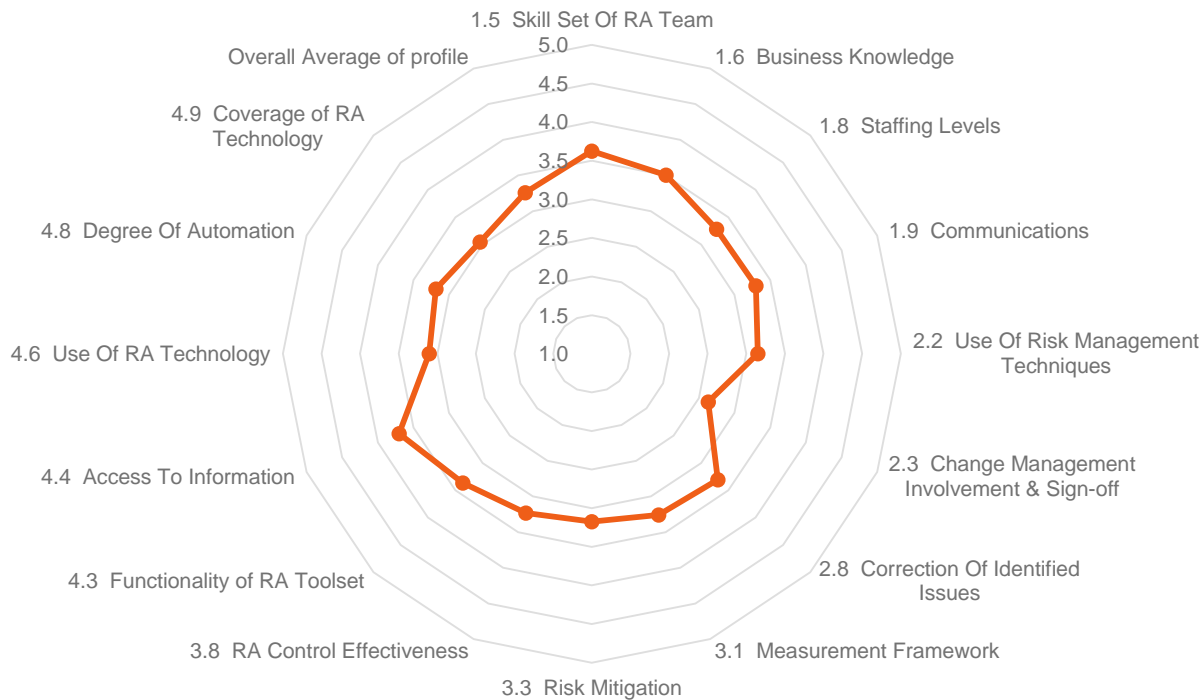
Percentage of participants who performed the RAMM assessment for maturity




1 out of 4 globally used the detailed RAMM assessment for the evaluation of maturity (max 2 digits after the comma). The RAMM assessment was made use of most in Western Europe, Latin America and the Middle East.

RAMM 2 topic maturity scores (1/2)

“13-II. What are your RAMM2 Topic Level scores?”



 Remarks: Results of this question are represented in the light benchmark report for typical RA organization profiles ([Appendix 2](#))

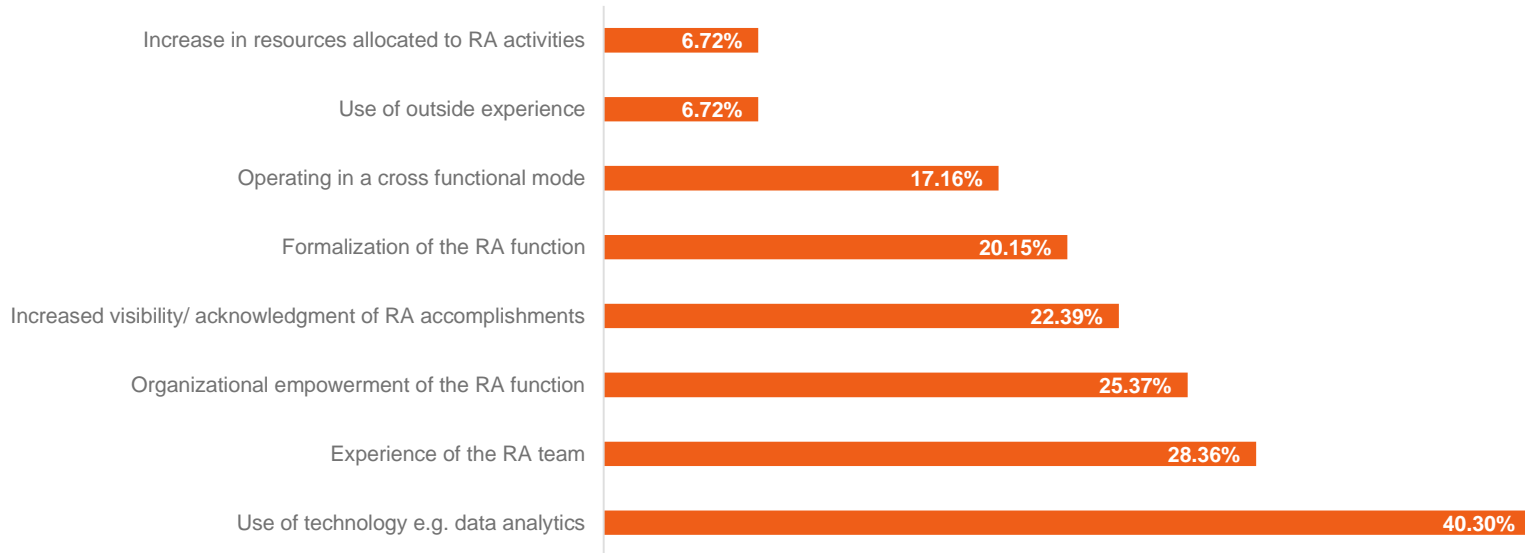
27 valid responses


RAMM 2 topic maturity scores (2/2)

Topic area	Average	Median	Min	Max
1.5 Skill Set Of RA Team	3,54	3,81	1	5
1.6 Business Knowledge	3,56	3,32	2	5
1.8 Staffing Levels	3,26	3,30	1	5
1.9 Communications	3,18	3,00	2	5
2.2 Use Of Risk Management Techniques	3,09	3,07	1	5
2.3 Change Management Involvement and Sign-off	2,77	3,00	1	5
2.8 Correction Of Identified Issues	3,29	3,20	1	5
3.1 Measurement Framework	3,26	3,06	1	5
3.3 Risk Mitigation	3,09	3,00	1	5
3.8 RA Control Effectiveness	3,13	3,00	1	5
4.3 Functionality of RA Toolset	3,21	3,50	1	5
4.4 Access To Information	3,64	4,00	1,74	5
4.6 Use Of RA Technology	2,96	3,00	1	5
4.8 Degree Of Automation	3,03	3,00	1	4,89
4.9 Coverage of RA Technology	2,95	3,00	1	4,2

Maturity accelerators

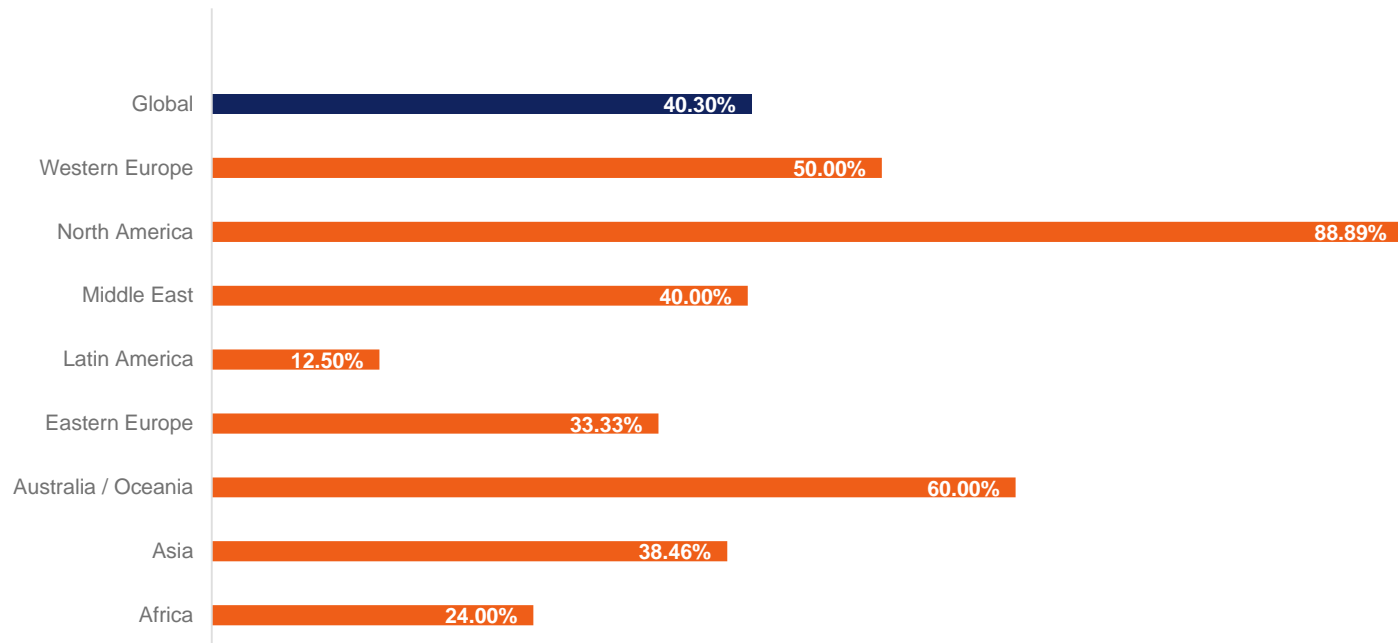
“14. In your company, what describes best the factors that accelerated Revenue Assurance maturity improvements in the last year?” (max 2 answers)



 Survey 2015 (single answers only): 25% Experience of team, 20% Use of tools 12% org empowerment, 12% Org formalization, 11% increased visibility, 11% working cross functionally, 2% increase in allocated resources, 2% use of outside experience

- 134 valid responses

Main Accelerators of Maturity – Additional insights “Use of Technology” by region

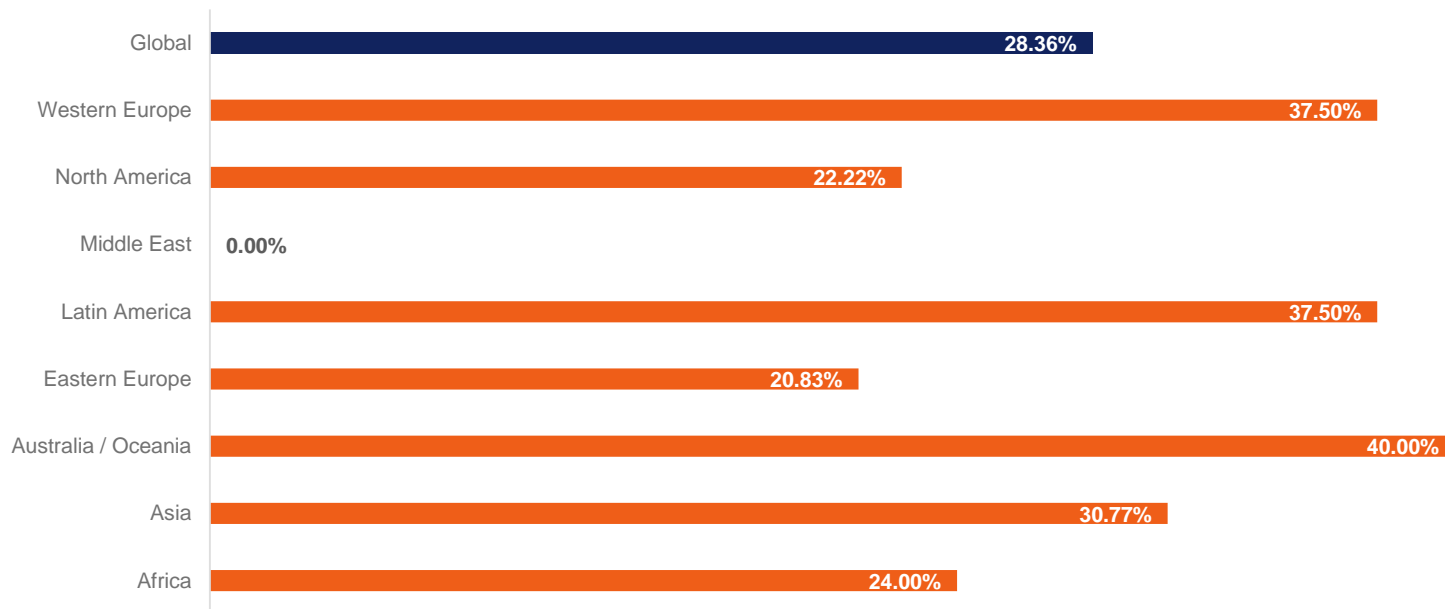


In North America, 90% of the survey participants reported "Use of Technology" as a main maturity accelerator. Latin America and Africa have chosen the "technology accelerator" rarely (e.g. one out of 10).

TM Forum Community Comments

In North America technology tends to be adapted earlier to drive standardization and automation of procedures and processes.

Main Accelerators of Maturity – Additional insights “Experience of the RA team” by region

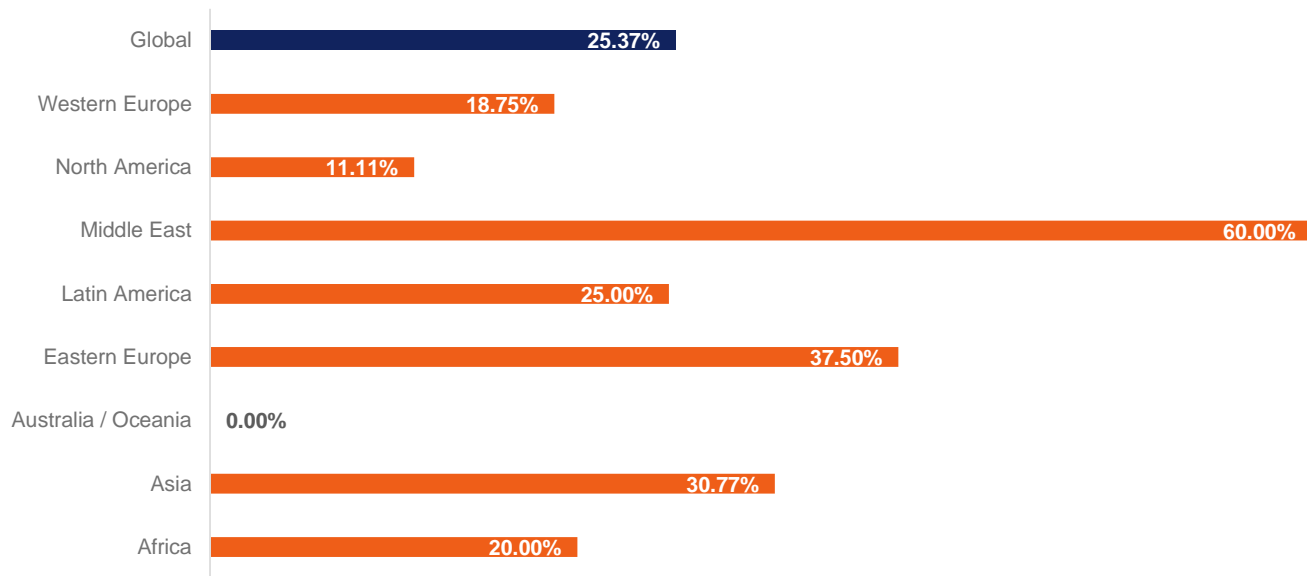



Australia, Western Europe and Latin America have reported the maturity accelerator “Experience of the RA team” most frequently (about 4 out of 10). None from the Middle East selected this accelerator of maturity which was chosen second but most globally.

TM Forum Community Comments

As compared to the top maturity accelerator “Use of Technology”, “Experience of the RA team” was selected more frequently in regions such as Latin America, Asia and Africa where technology is less frequently recognized as a maturity accelerator.

Main Accelerators of Maturity – Additional insights “Organizational Empowerment” by region



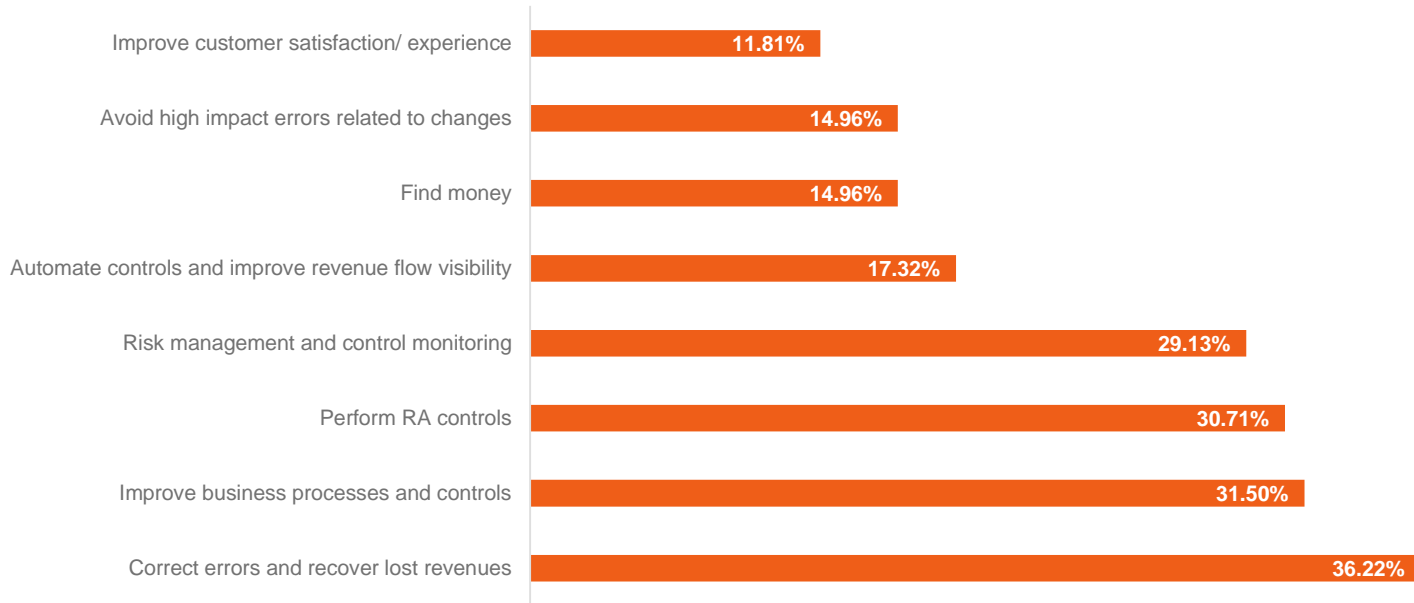
 The maturity accelerator “Organizational Empowerment” was most frequently selected in the Middle east (by 60% of the respondents) followed by Eastern Europe and Asia.

TM Forum Community Comments

The participants from the “Middle East” reported “Organizational Empowerment” as a main maturity accelerator whereas technology and experience were not mentioned frequently. This could be explained by a different management culture.

Purpose of RA function

“15. How would you characterize the main purpose(s) of your revenue assurance function?” (max 2 answers)

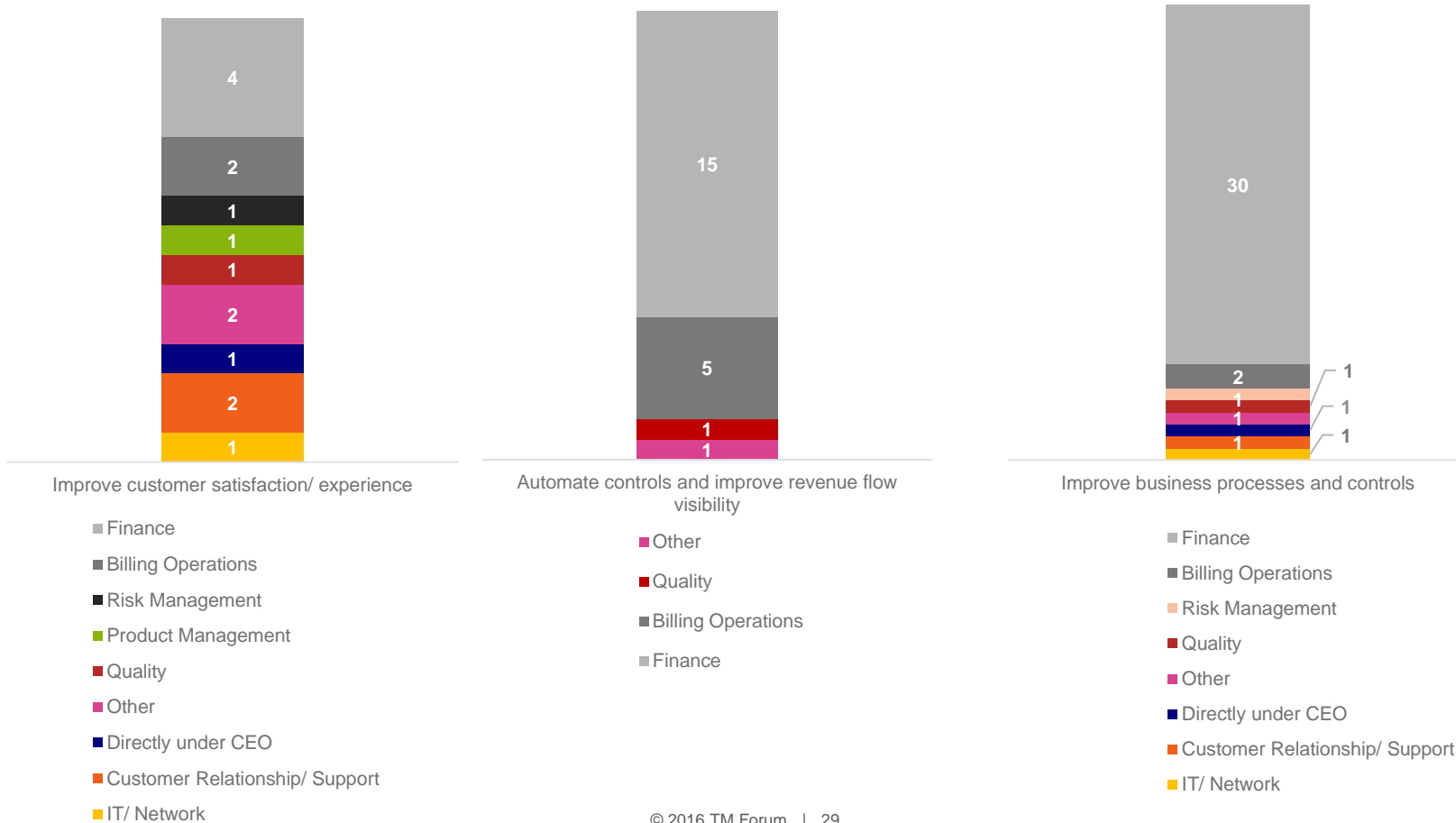


Survey 2015 (single answers only): 34% monitor controls, 32% find money, 8% identify problems and root causes, 7% perform RA controls, 4% improve revenue flow visibility, 3% define/ improve controls, 2% improve business processes, 2% recovery of lost revenues, 2% Correction of billing errors

127 valid responses

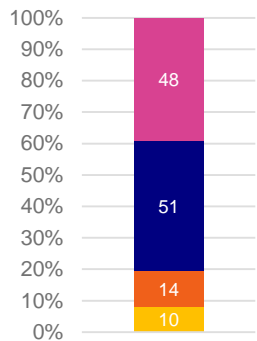
Purpose of RA function – Additional insights

Selected RA purposes vs. Location of RA lead

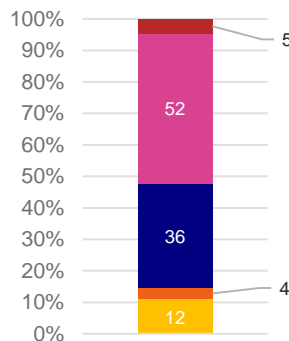


Purpose of RA function – Additional insights

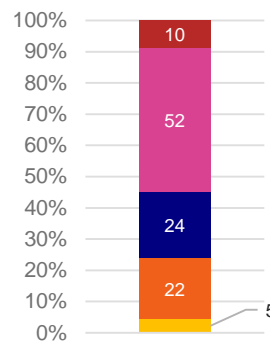
Maturity correlations (top down)



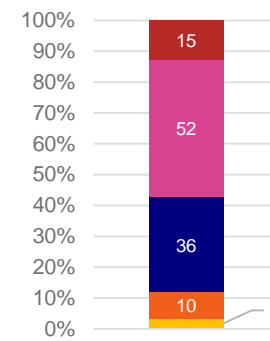
Correct errors and recover lost revenues



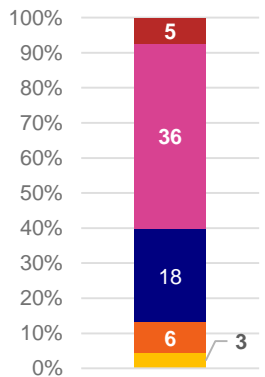
Improve business processes and controls



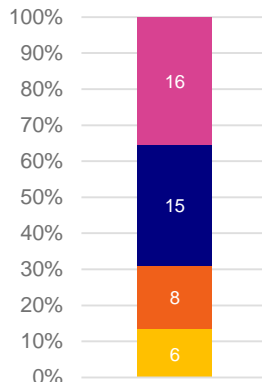
Perform RA controls



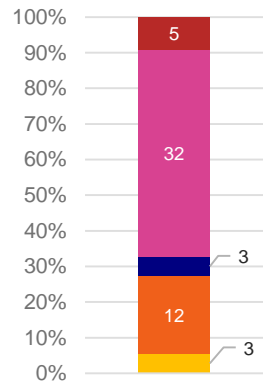
Risk management and control monitoring



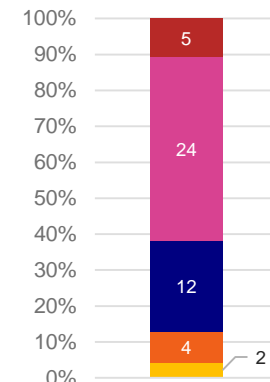
Automate controls and improve revenue flow visibility



Find money



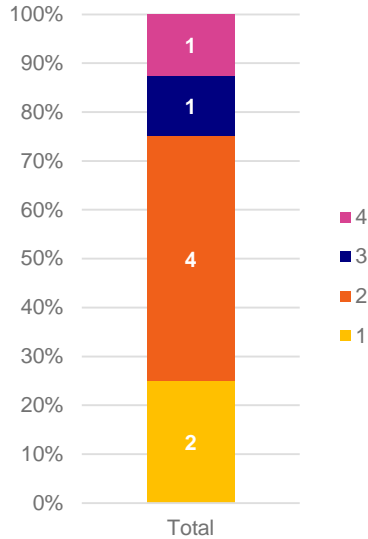
Avoid high impact errors related to changes



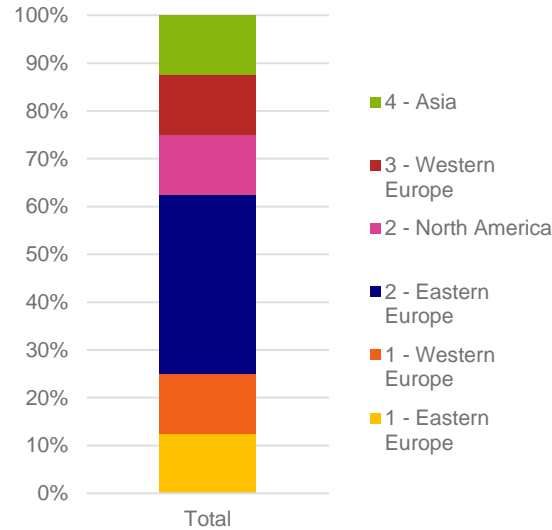
Improve customer satisfaction/experience

Purpose of RA function – Additional insights

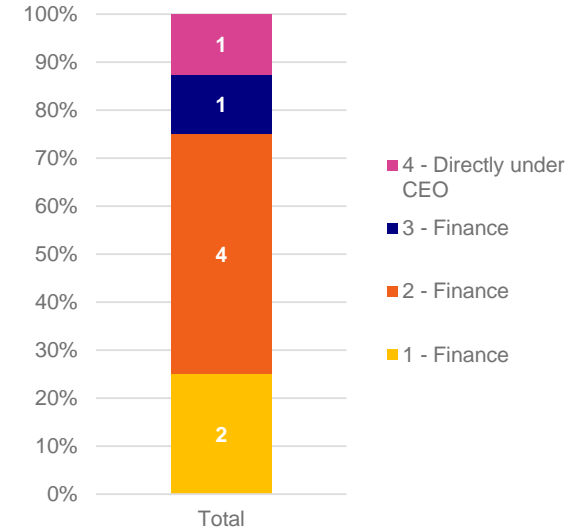
Maturity correlation with reactive type purposes



“Correct errors and recover lost revenues” correlated with “find money”



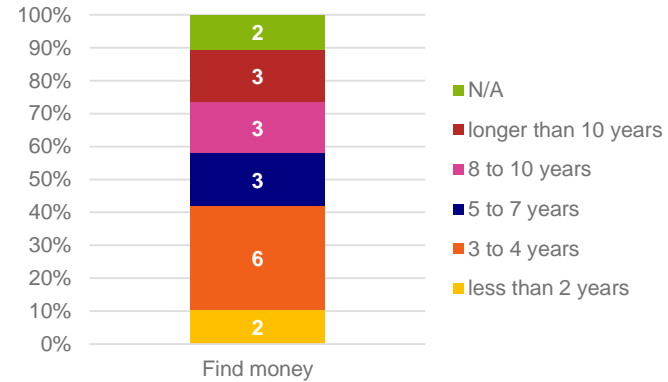
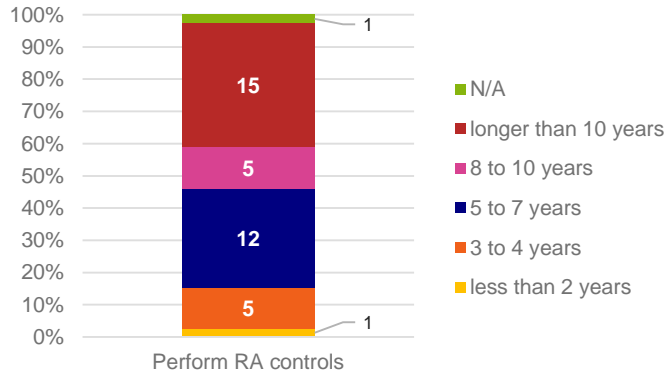
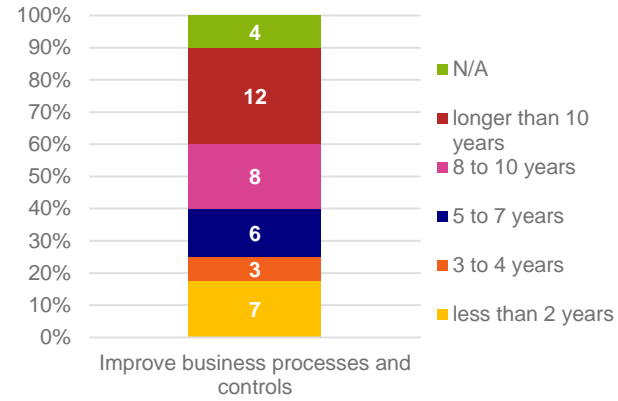
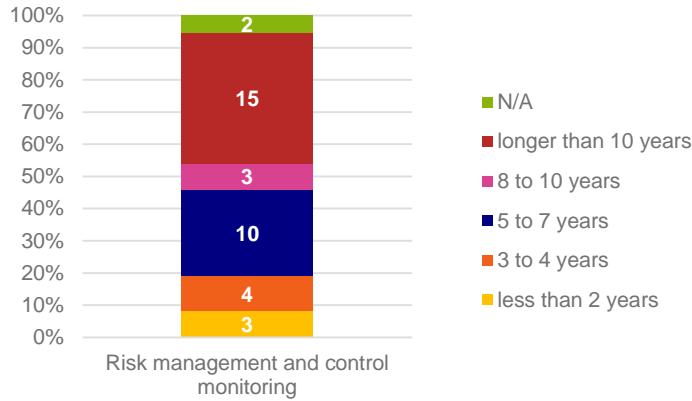
“Correct errors and recover lost revenues” correlated with “find money” and “main geographical region in which company operates”



“Correct errors and recover lost revenues” correlated with “find money” and “where is the lead of RA department positioned within organization”

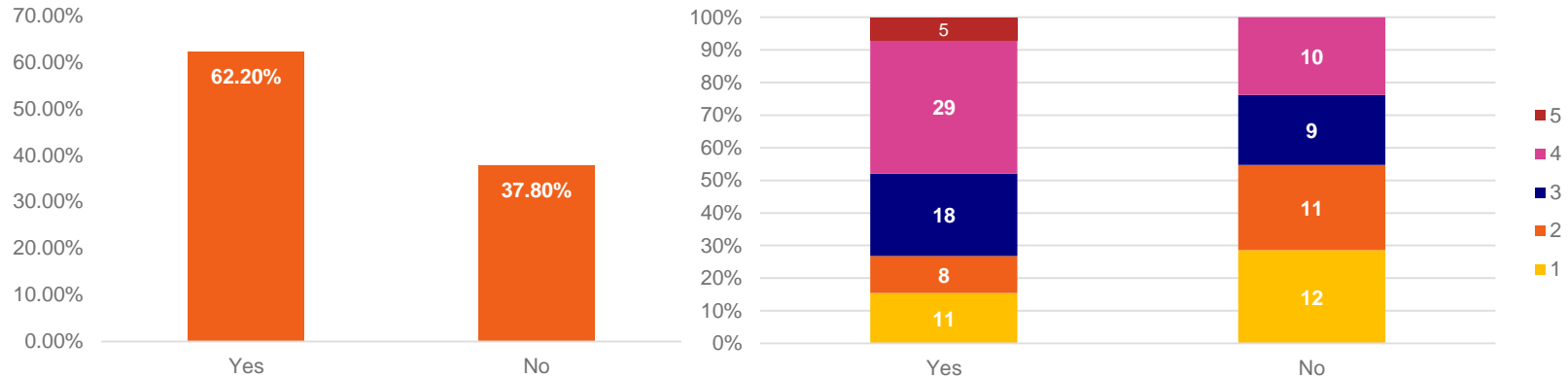
Purpose of RA function – Additional insights

Correlation with years of existence for top 3 answers and “Finding Money”



Change process mandate for RA to perform risk/ cost assessments

“16. Does the business change process mandate the involvement of RA to perform revenue and cost risk assessments?”



Remark: No clear indication of the nature of the companies who have answered level 4 with “NO” (Correlations tested with all profiling questions).

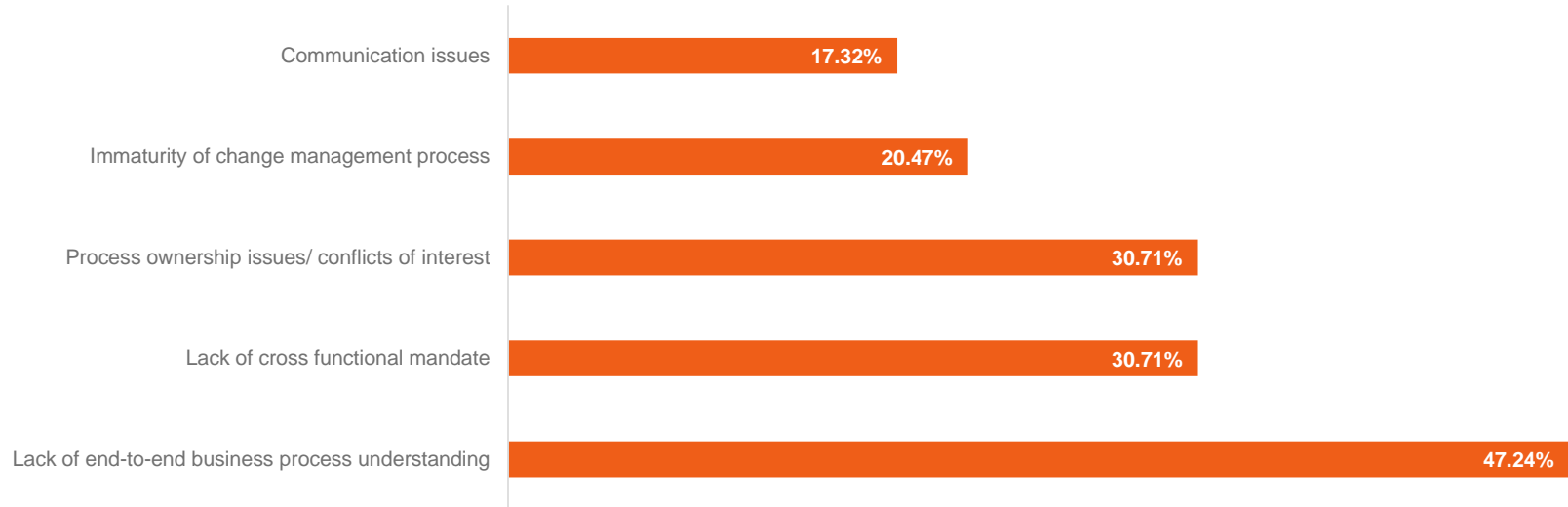
127 valid responses

TM Forum Community Comments

On one hand it is surprising that still 37.8% of RA is not mandated to be involved systematically in the change process, on the other hand comparing with the near past, it is amazing and very positive that 62% are already involved in changes processes.

Primary challenges for RA to overcome regarding “New product development”

“17. Thinking about how Revenue Assurance impacts new products in your company, what are the primary challenges to overcome regarding change management and new product development?”



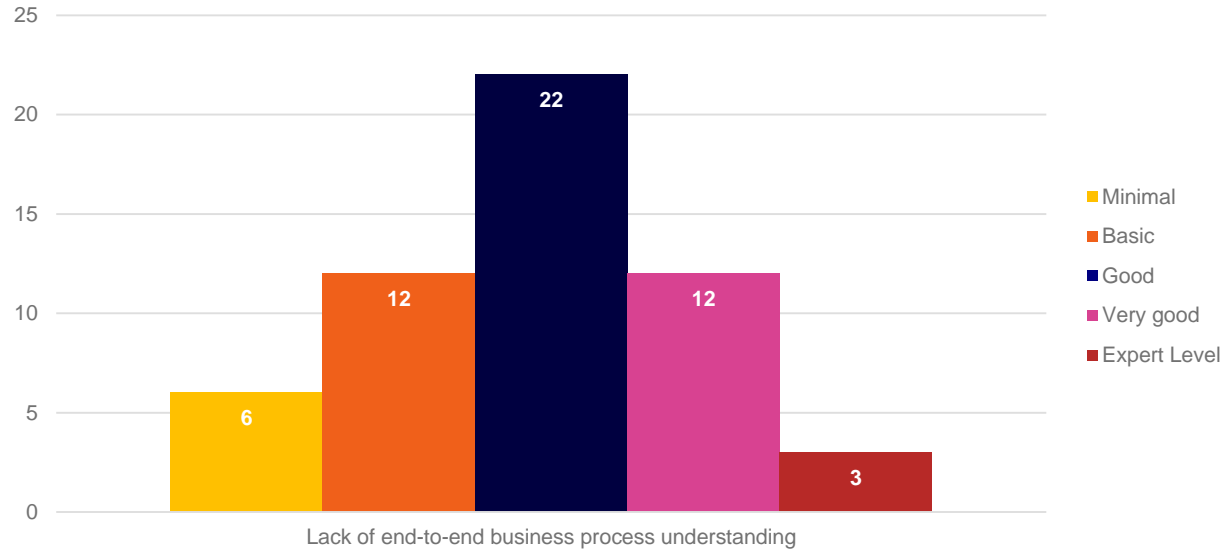
Survey 2015 (single answers only): 28% lack of cross functional mandate, 17% immaturity of change management process, 16% change information no available, 13% communication platform missing, 7% lack of end-to-end business process understanding, 5% communication skills weak.

127 valid responses

Primary challenges for RA to overcome regarding “New product development”

Additional insights

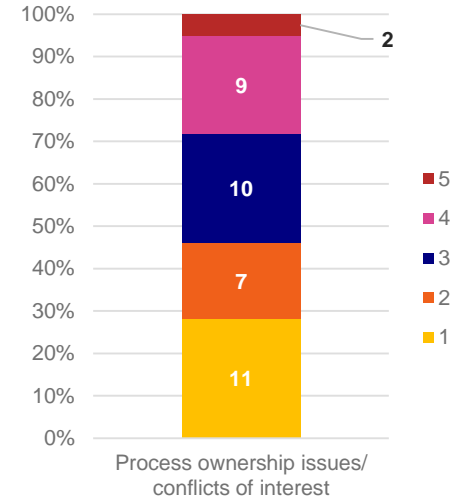
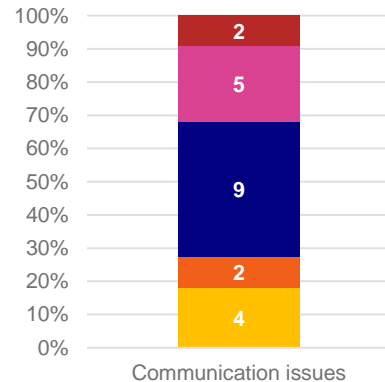
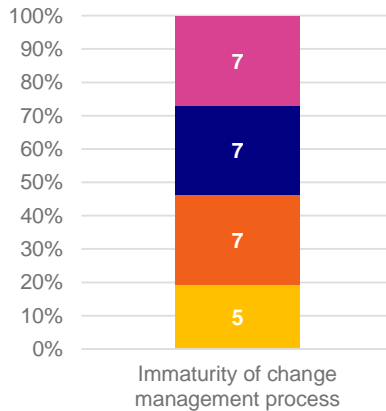
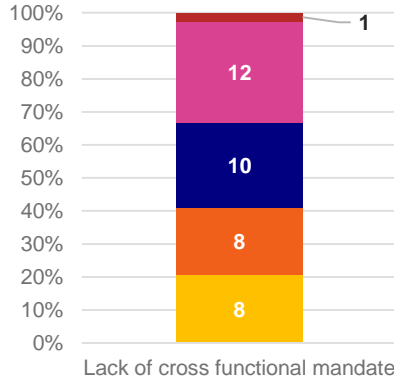
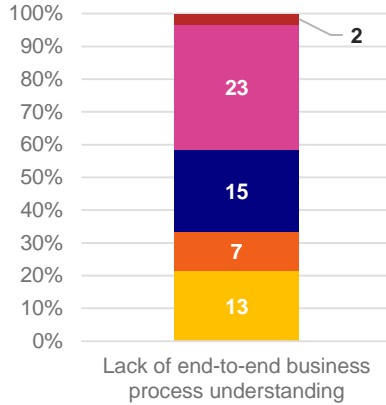
End-to-end business process understanding vs. knowledge levels of business models



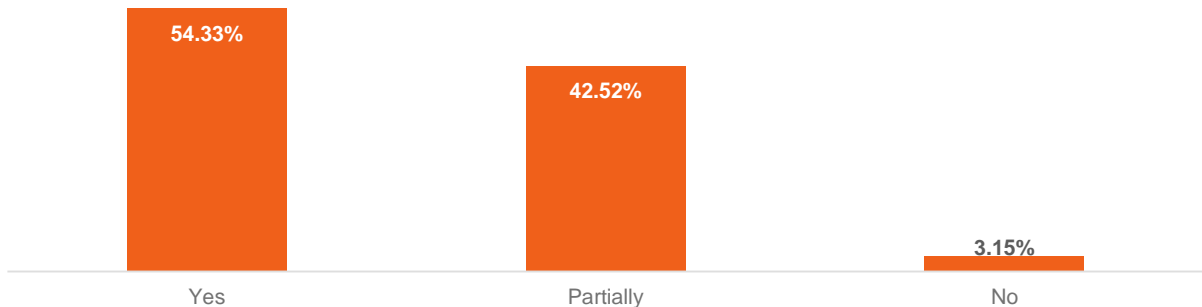
Primary challenges for RA to overcome regarding “New product development”

– Additional insights

Maturity correlations (top down)



18. Root cause correction preference vs. fixing of symptoms



Over half of the RA organizations give preference to identifying and correcting root causes.

Slightly higher maturity levels were reported for companies who perform root cause analysis systematically. Most companies report that they are focusing on finding root causes of problems.

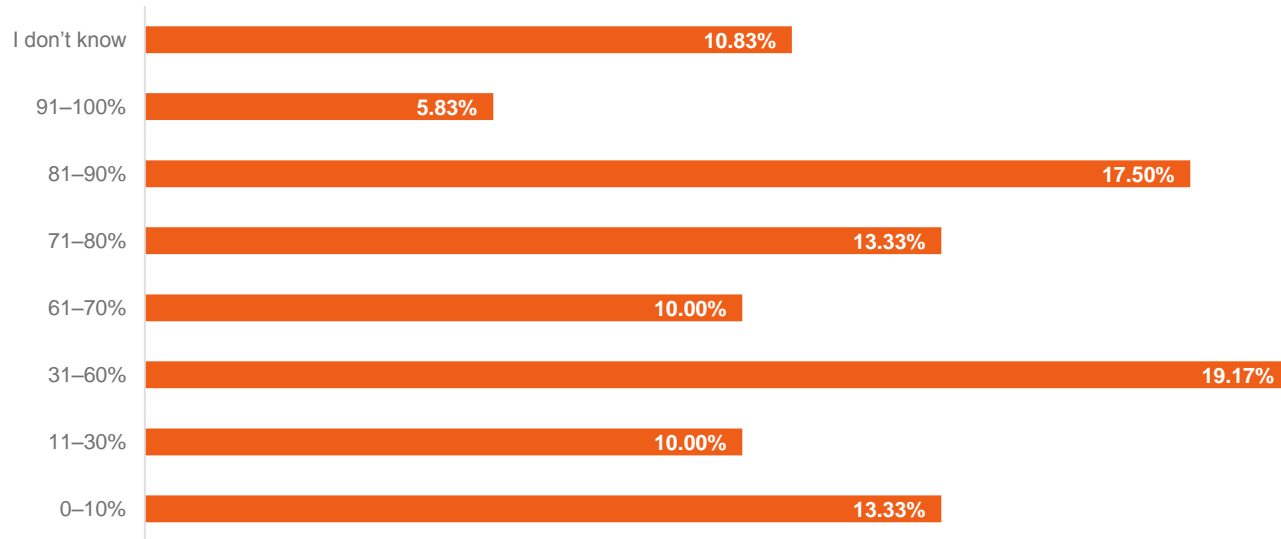
127 valid responses

TM Forum Community Comments

RA is increasingly seen as a problem solving entity, and not just as an auditor whose target is to identify flaws.

Overall revenue coverage

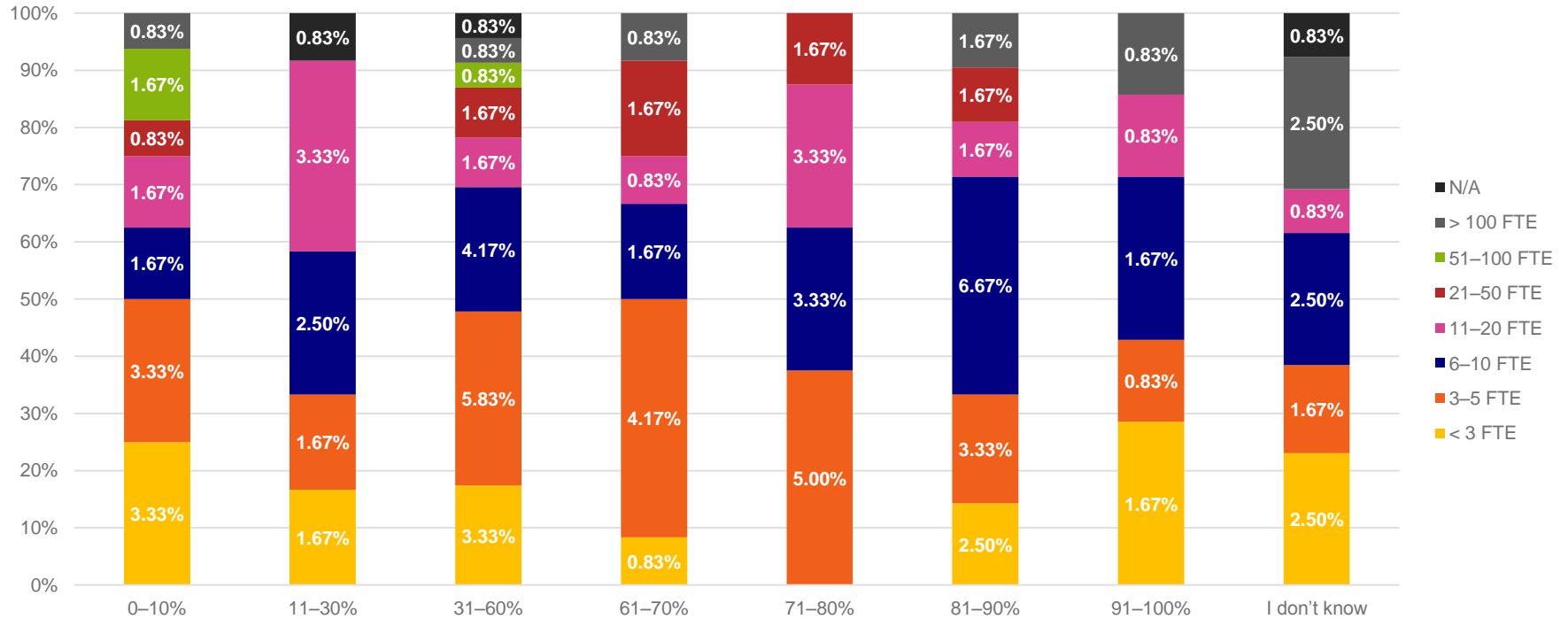
“19. What percentage (%) of the total company revenue do you estimate are covered by your Revenue Assurance activities?”



RA survey 2015: Survey 2013: 22% 91-100, 42% 61-90%

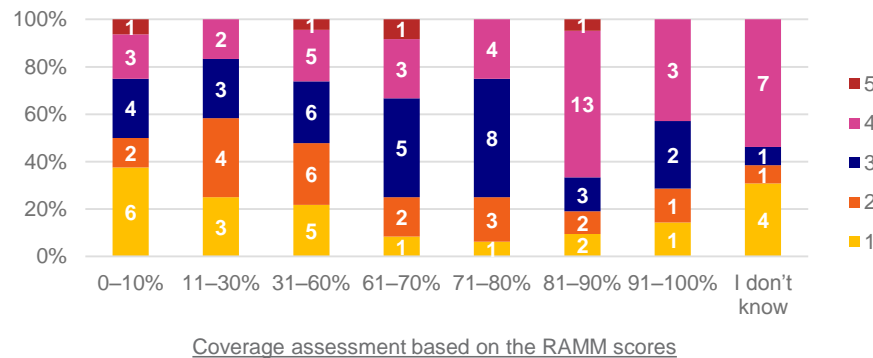
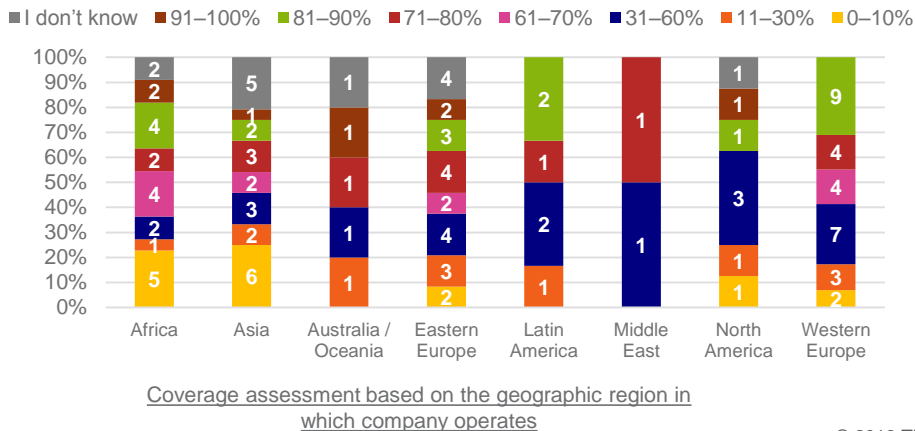
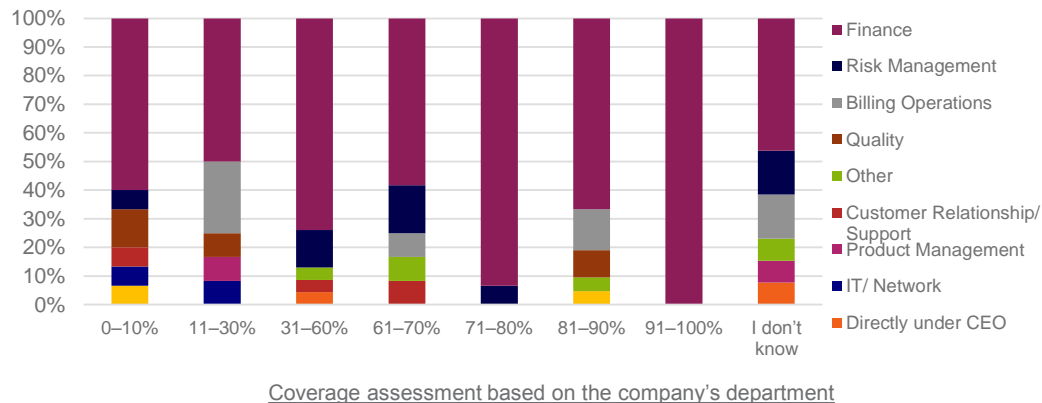
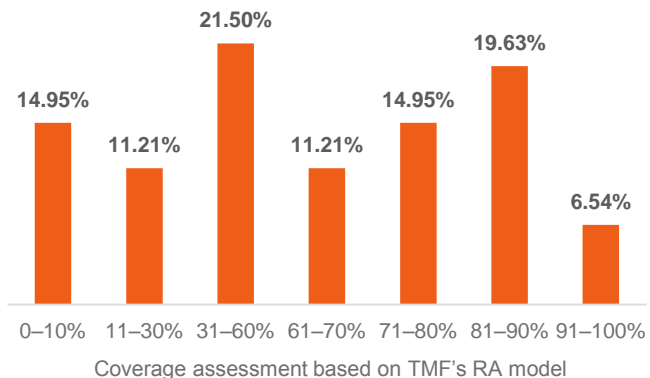
120 valid responses

Overall revenue coverage 2/2 (vs. number of RA FTEs) Coverage



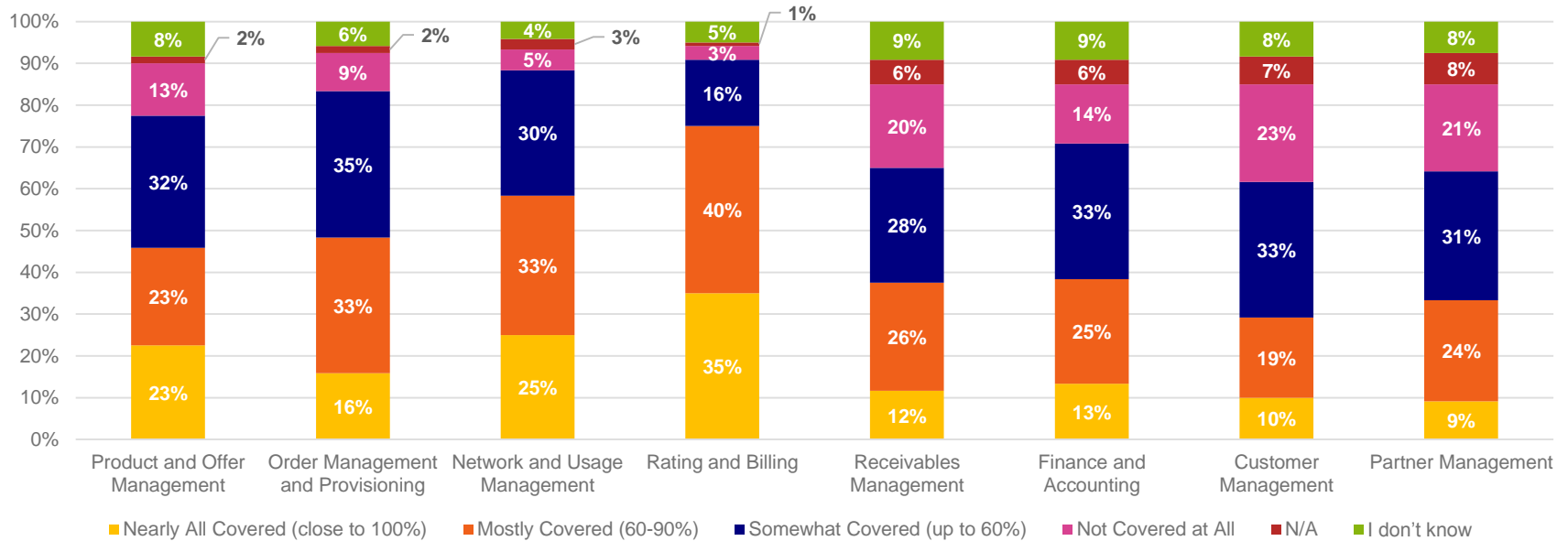
Overall revenue coverage – Additional insights

Assessment based on TMF's process model and Other correlations



Process area coverage

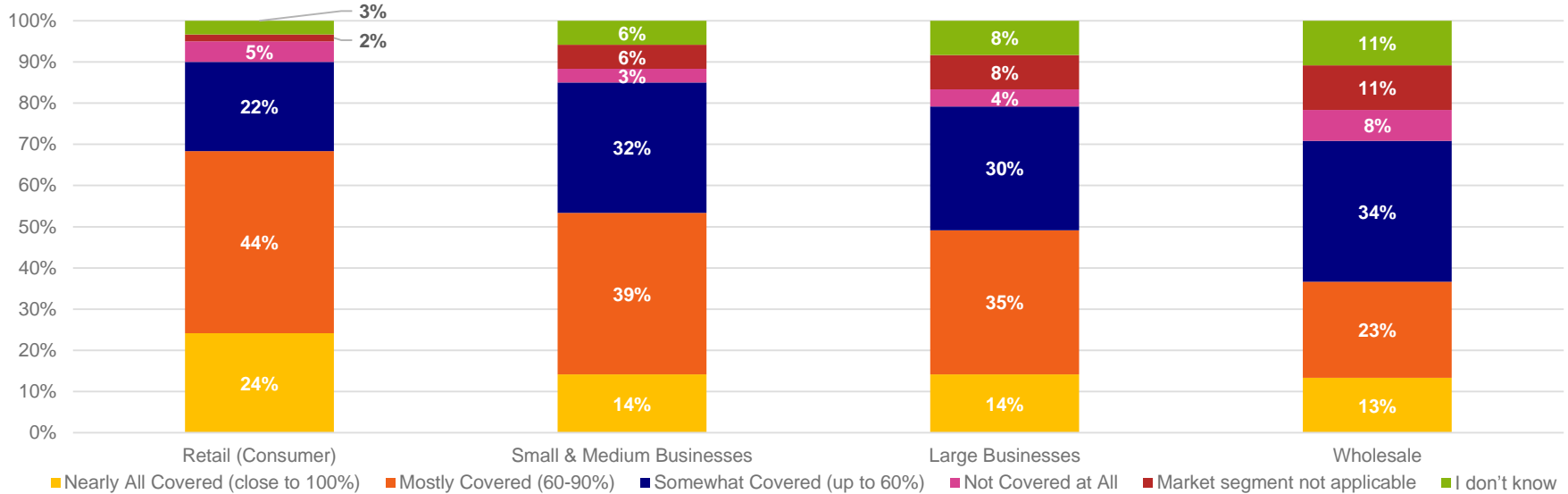
“20. Within the following process areas, what is the extent of your Revenue Assurance Coverage? - Product and Offer Management”



120 valid responses

Market segment coverage

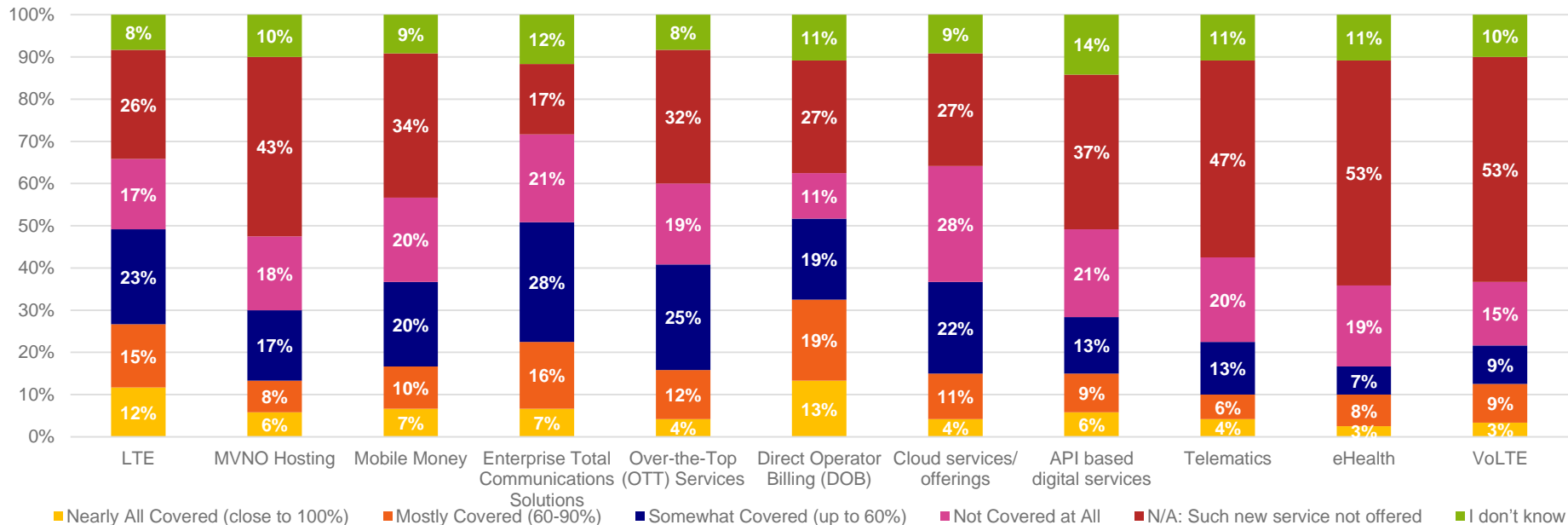
“21. Within the following market segments, what is the extent of your Revenue Assurance Coverage?”



120 valid responses

Coverage of new services/ technologies

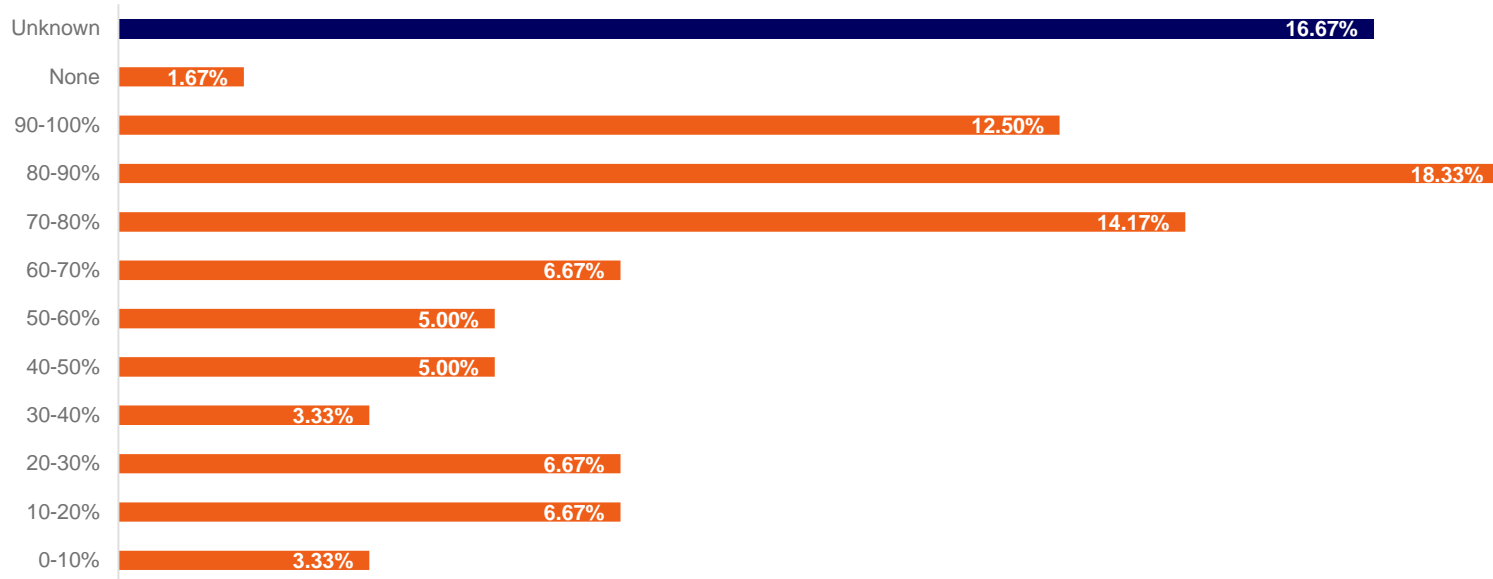
“22. Within the following new services / technologies offered, what is the extent of your Revenue Assurance Coverage?”



120 valid responses

Subscription revenue coverage

“23. To what degree are recurring, subscription revenues protected by revenue assurance practices?”



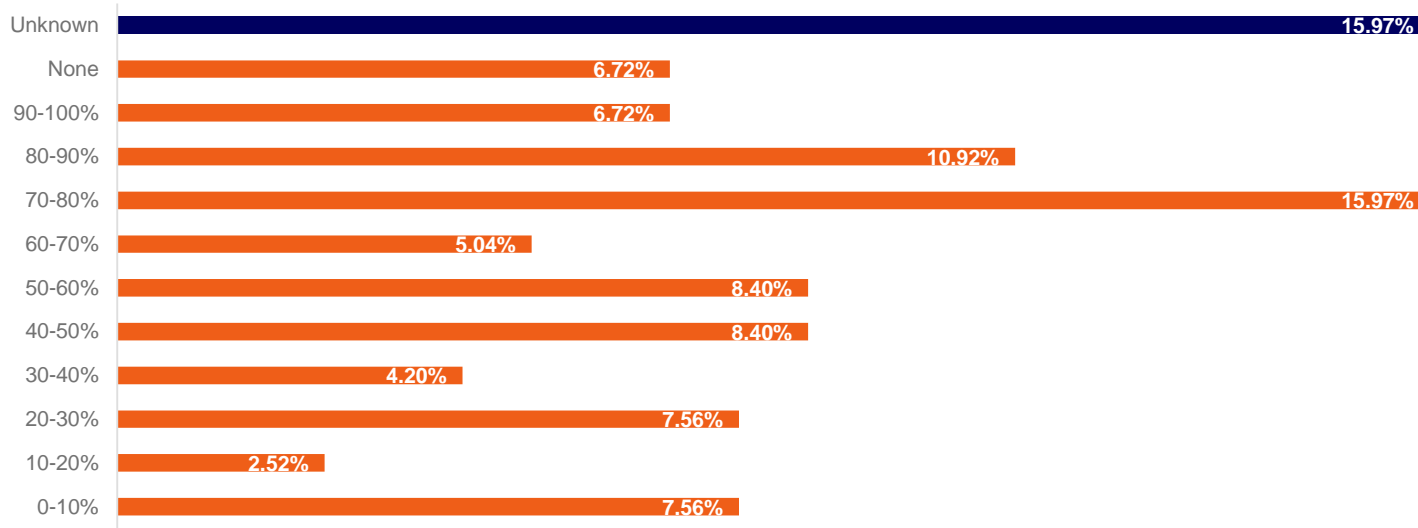
The majority of respondents reported 70% and higher coverage of subscription based revenues.

Compared to overall Revenue Coverage levels, subscription type revenues are covered on a slightly higher level.

120 valid responses

RA technology coverage level

“24. What is the percentage of revenue that is covered by RA technology?”



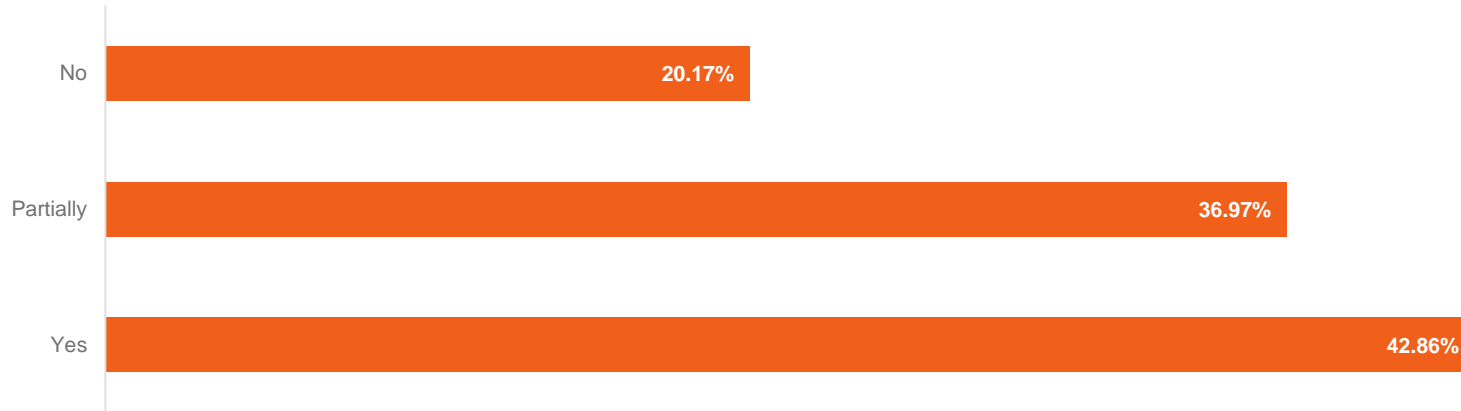
Compared to overall Revenue Coverage levels the extent of RA technology coverage is almost 90% for coverage levels above 60%

Companies that reported 60% and more coverage by RA technology have slightly higher RA maturity levels.

119 valid responses

Automated technology platform for analytics

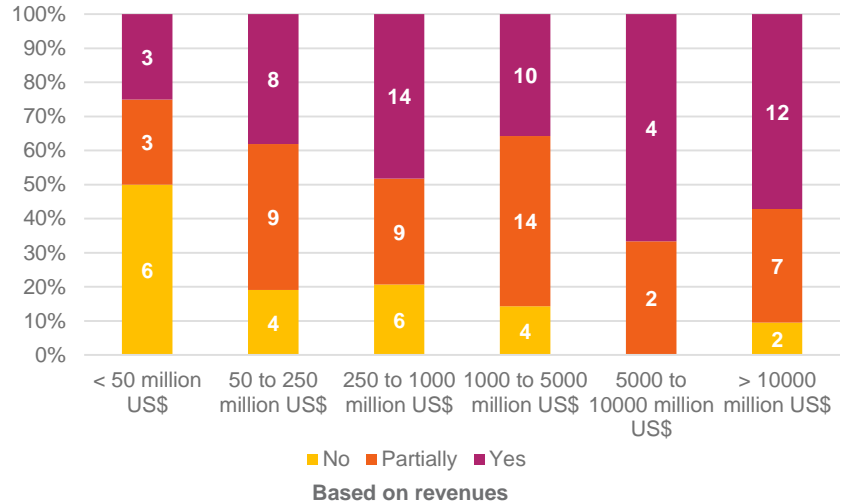
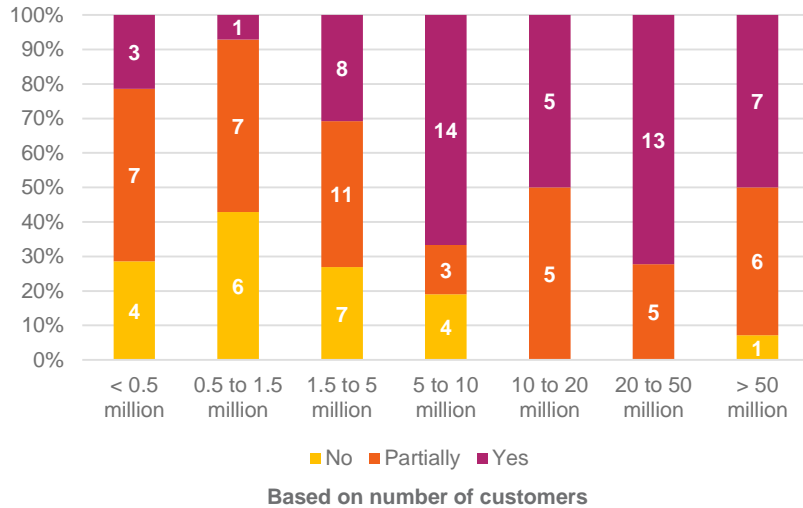
“25. Does the RA technology provide an automated platform for analyzing subscription, event charging information and other relevant data sources?”



119 valid responses

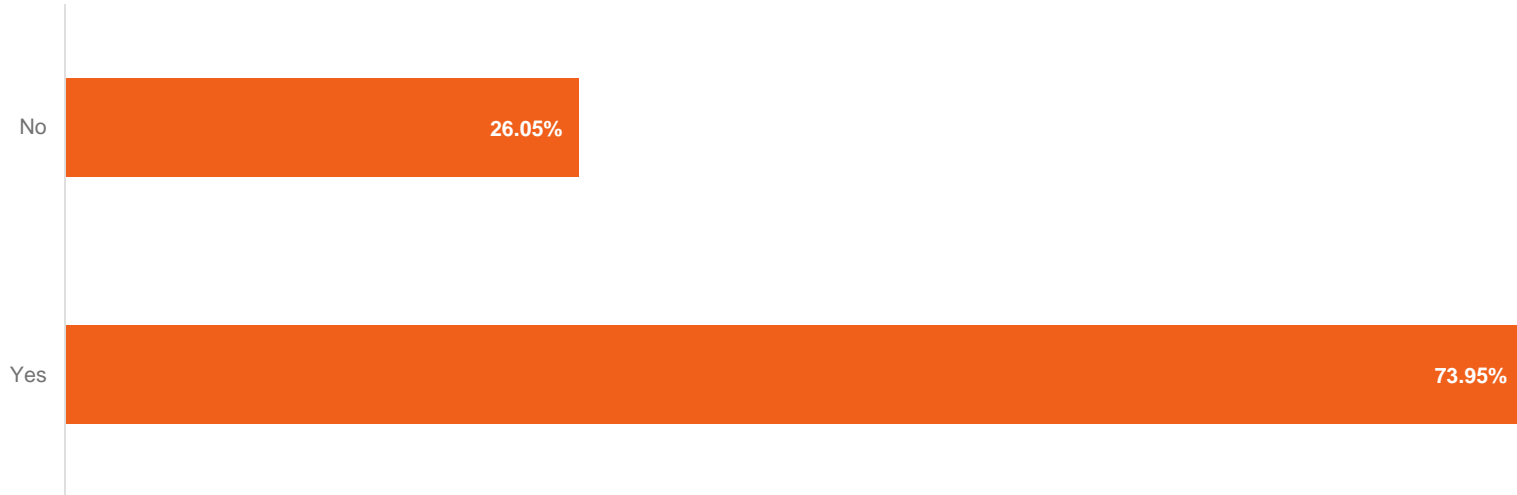
Automated technology platform for analytics – Additional insights

Correlation with size of Operator (Number of customers and Revenues)



Regular RA activity review with other departments

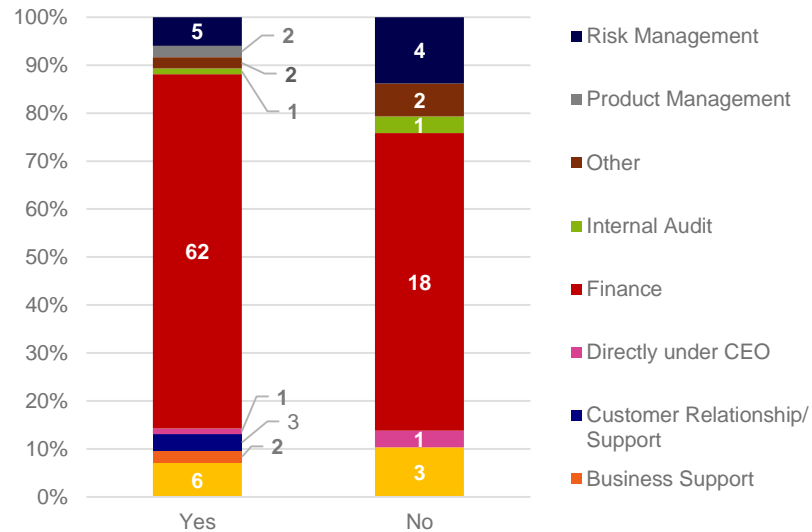
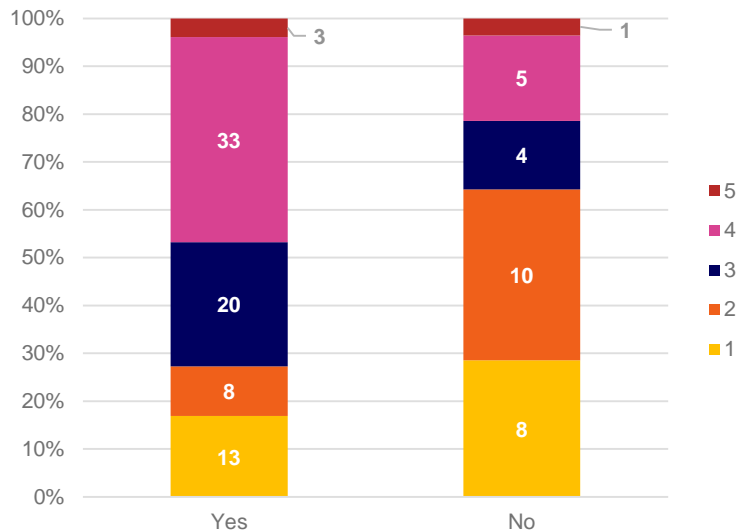
“26. Are regular meetings held with other departments to review the findings of RA activities and jointly plan corrective and preventative actions?”



119 valid responses

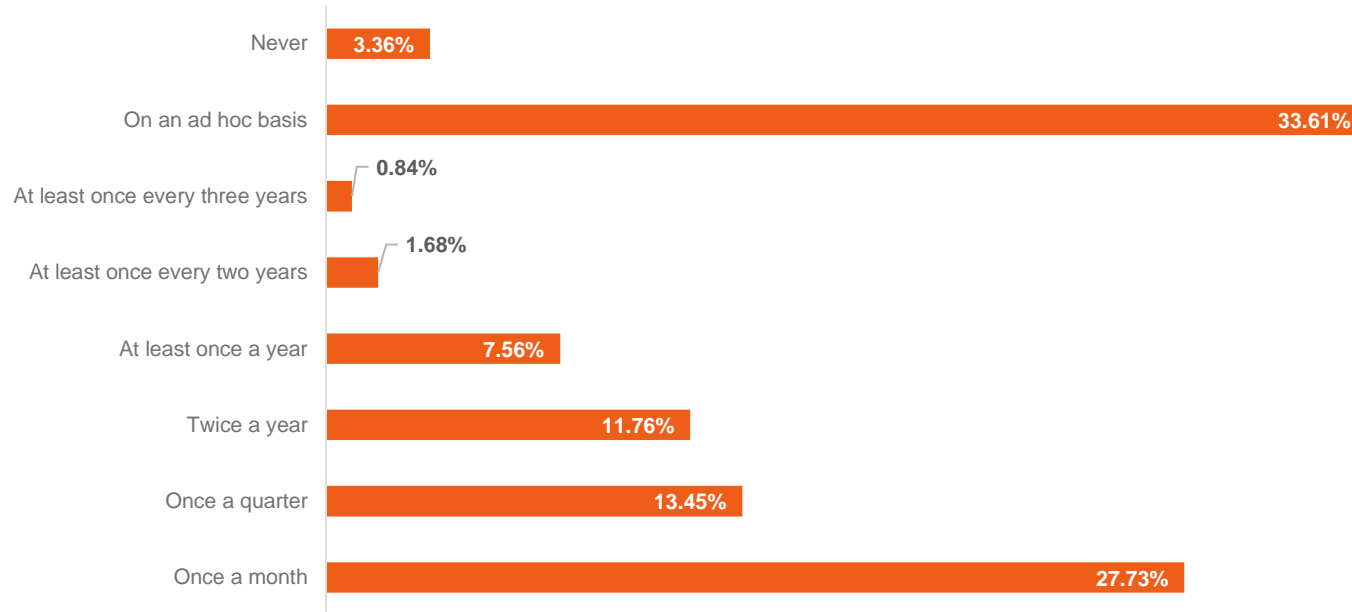
Regular RA activity review with other departments – Additional insights

Correlation with maturity and location of RA organization



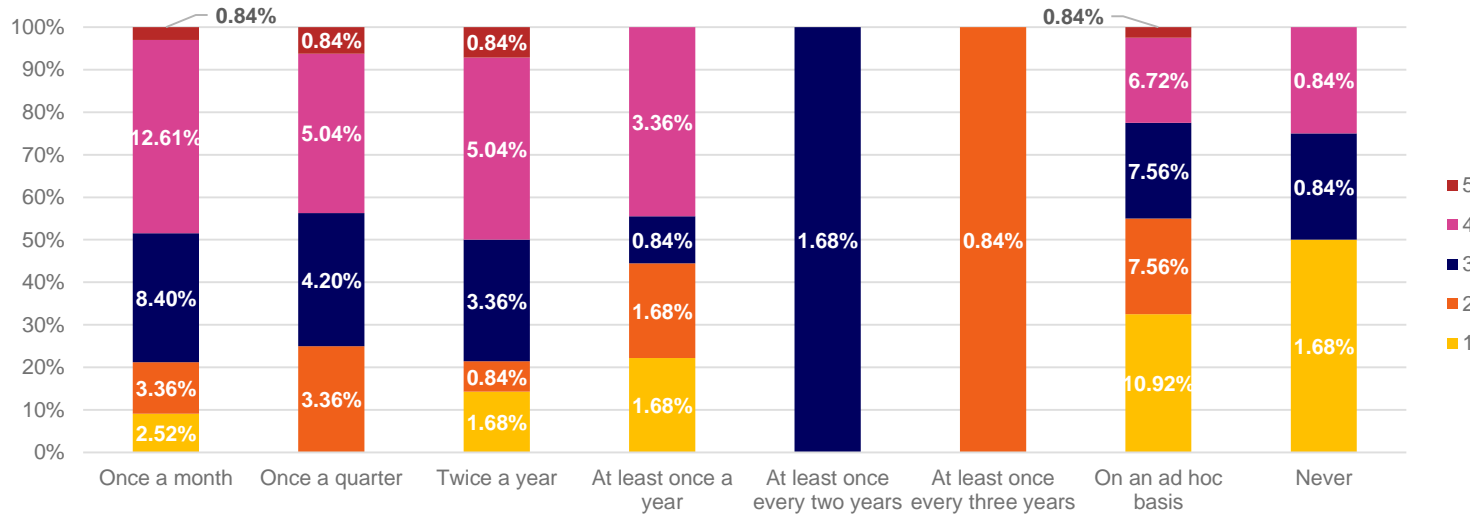
Frequency of revenue risk identification

“27. How frequently is revenue risk identification conducted?”



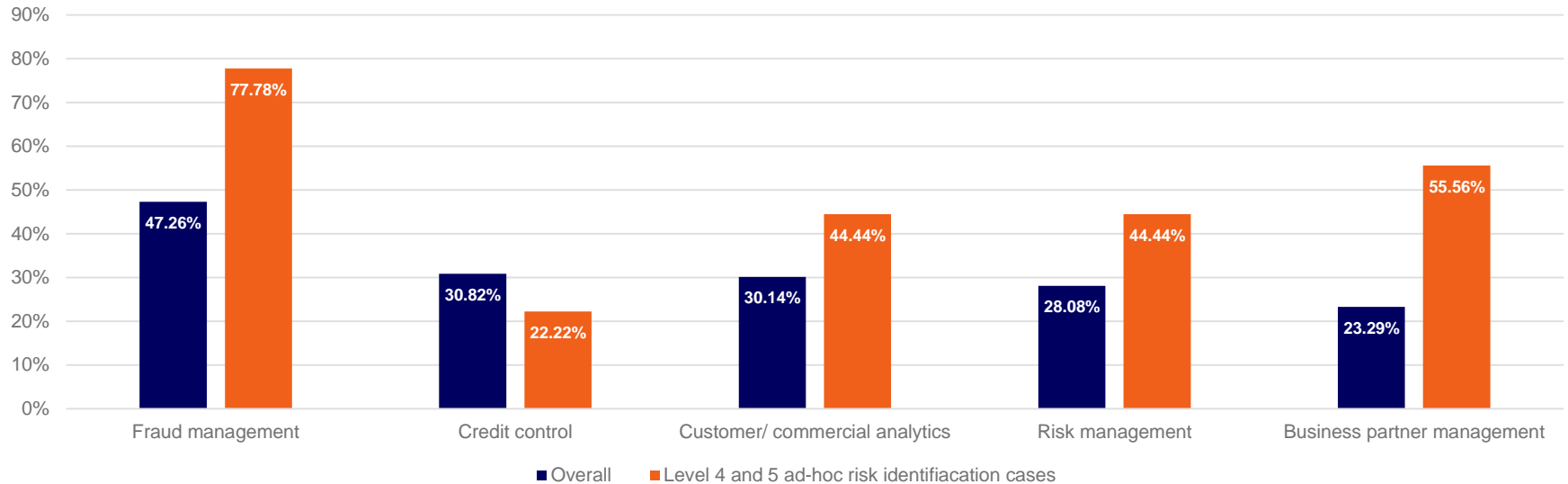
119 valid responses

Frequency of revenue risk identification – Additional insights Correlation with maturity



There is no clear correlation between maturity and systematic, regular risk identification. The category “ad-hoc” which is not bound to a timeframe has the widest spread of maturity (Low to high maturity).

Frequency of revenue risk identification – Additional insights “Ad hoc” risk identification category in relation to other Roles performed by RA where maturity levels 4 or 5



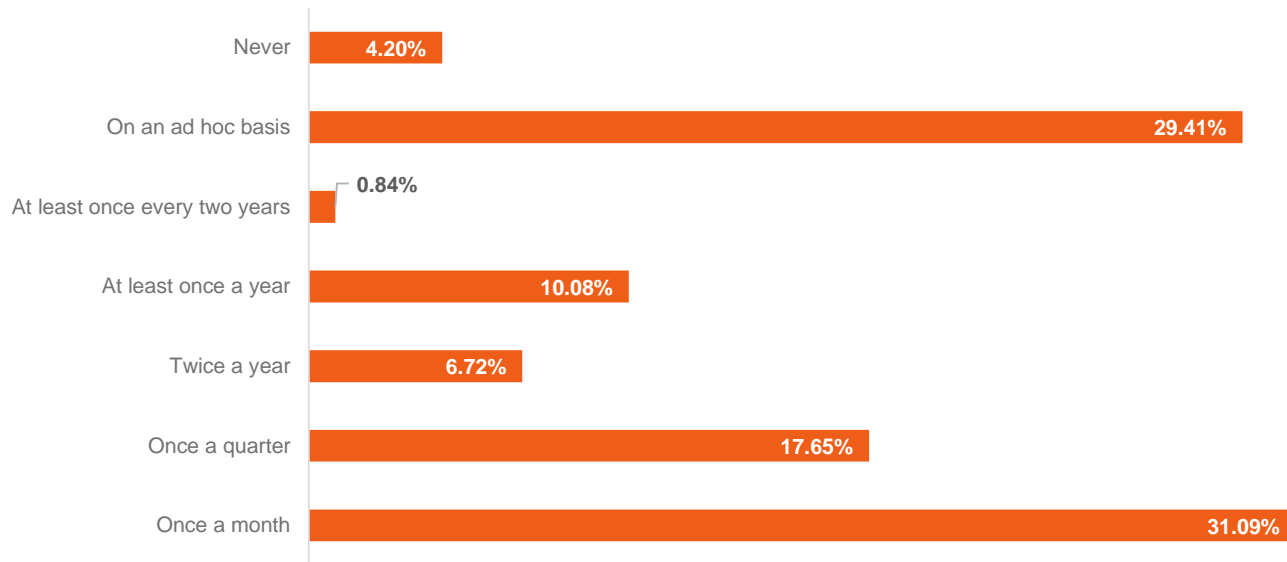
Additional correlation tests with level 4 and 5 maturity ad-hoc organizations discovered that such RA organizations are on average more involved in non-RA core activities such as fraud management (79% vs. 47% overall), risk management (44% vs. 28%), business partner management (56% vs. 23%) and customer analysis (44% vs. 30%). Remark: Such cases appear in all RA FTE groups (below 3 to over 100) and represent new and older RA organizations.

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Organizations with ad hoc risk identification have naturally higher engagement levels to compensate for systematic risk identification assessments (likely having sufficient risk visibility).

Frequency of RA control effectiveness monitoring

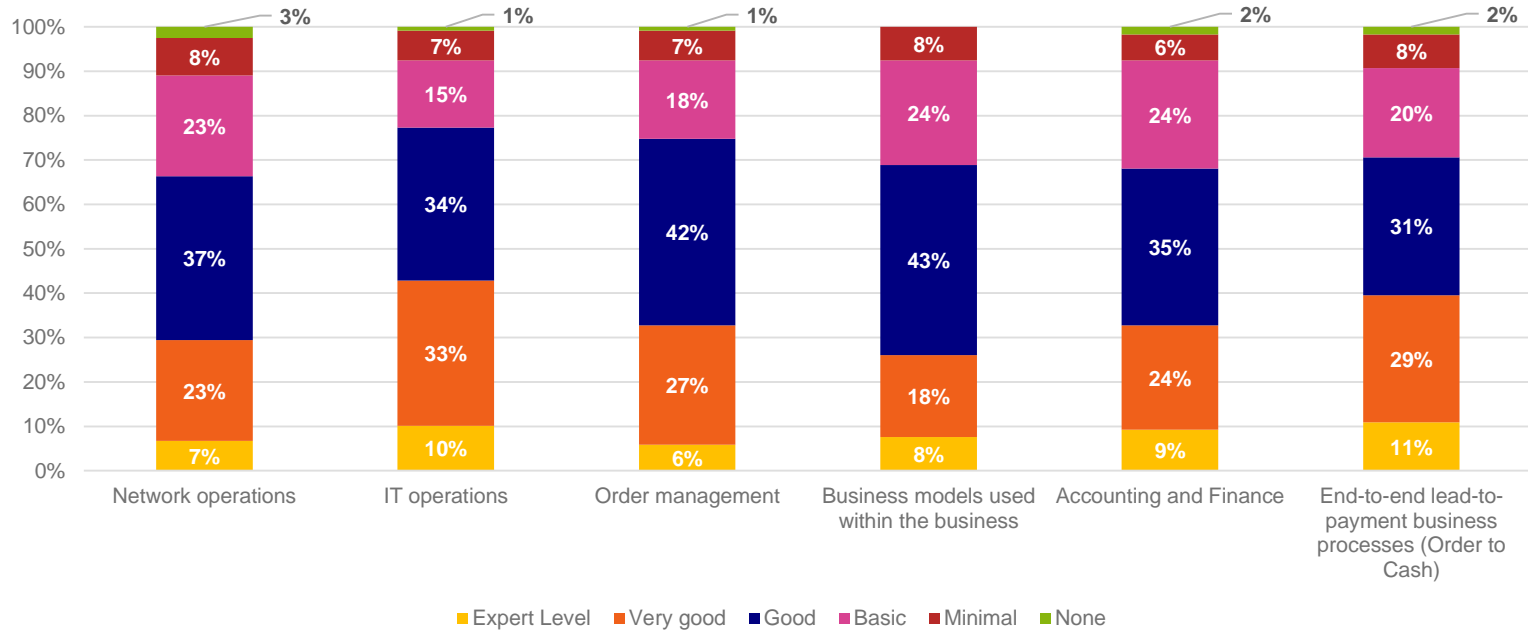
“28. How frequently are RA controls monitored for effectiveness?”



119 valid responses

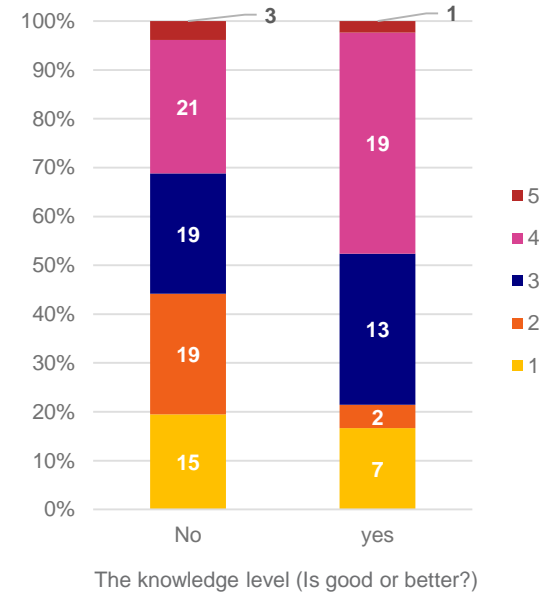
RA team knowledge levels

“29. What is the level of knowledge in the following areas within the RA team?”



RA team knowledge levels – Additional insights

Knowledge levels grouped and maturity correlation good and better vs. rest



Highest knowledge levels "at least good levels" were reported in IT operations and Order Management.

A clear correlation of knowledge levels with maturity was noted: RA organizations who selected good or better knowledge levels achieved on average higher maturity. 80% who had good or better selected for all categories have at least level 3 maturity.

Business/ Customer Intelligence cooperation

“30. What is the level of cooperation with your business intelligence/customer intelligence practice?”

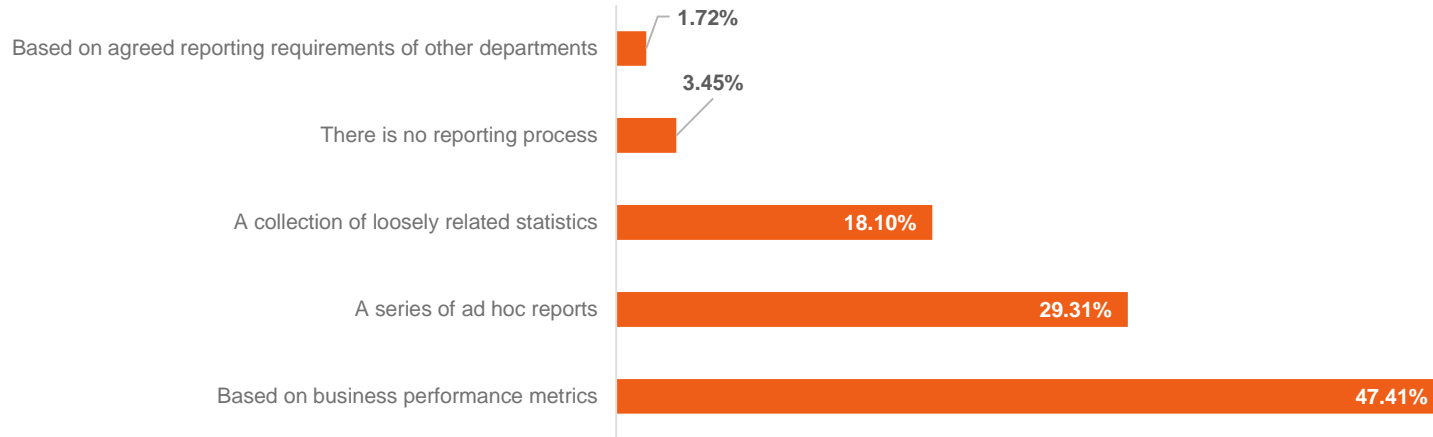


Survey 2015: 15% day to day, 41% Regular interaction, 11% project based, 22% loose, 11% no connection

119 valid responses

Performance reporting process

“31. What best describes the reporting process (performance)?”



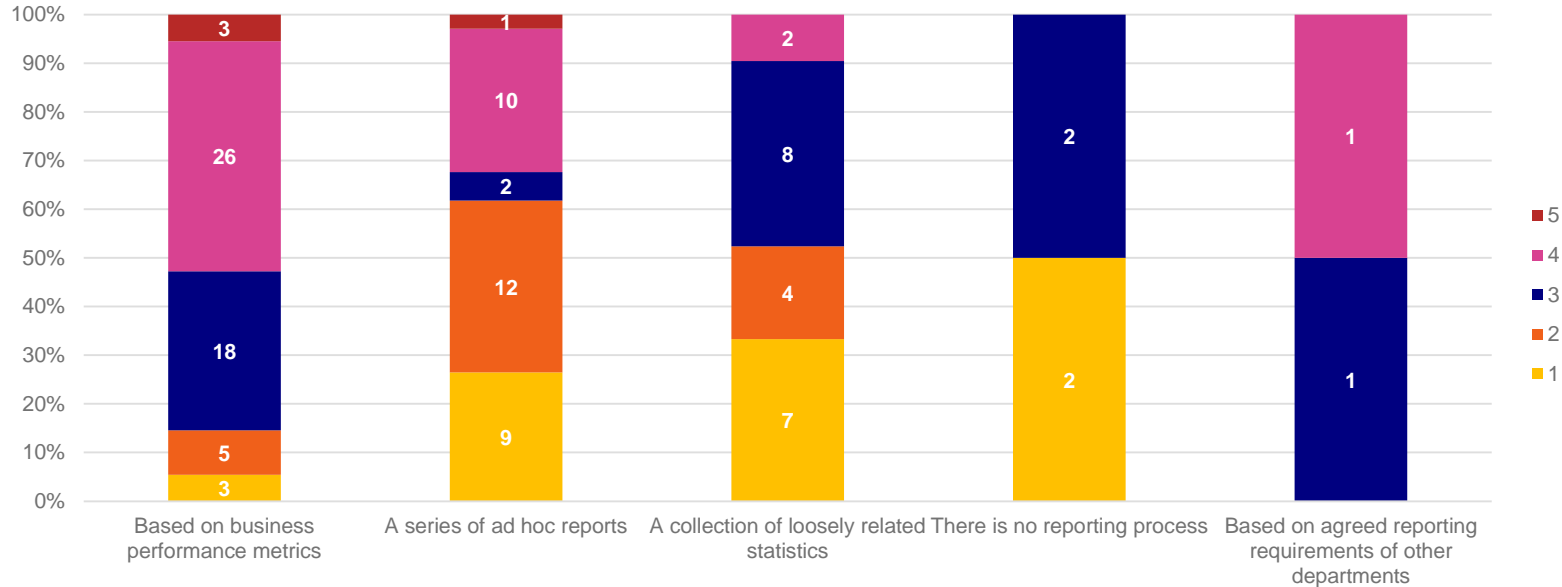
116 valid responses

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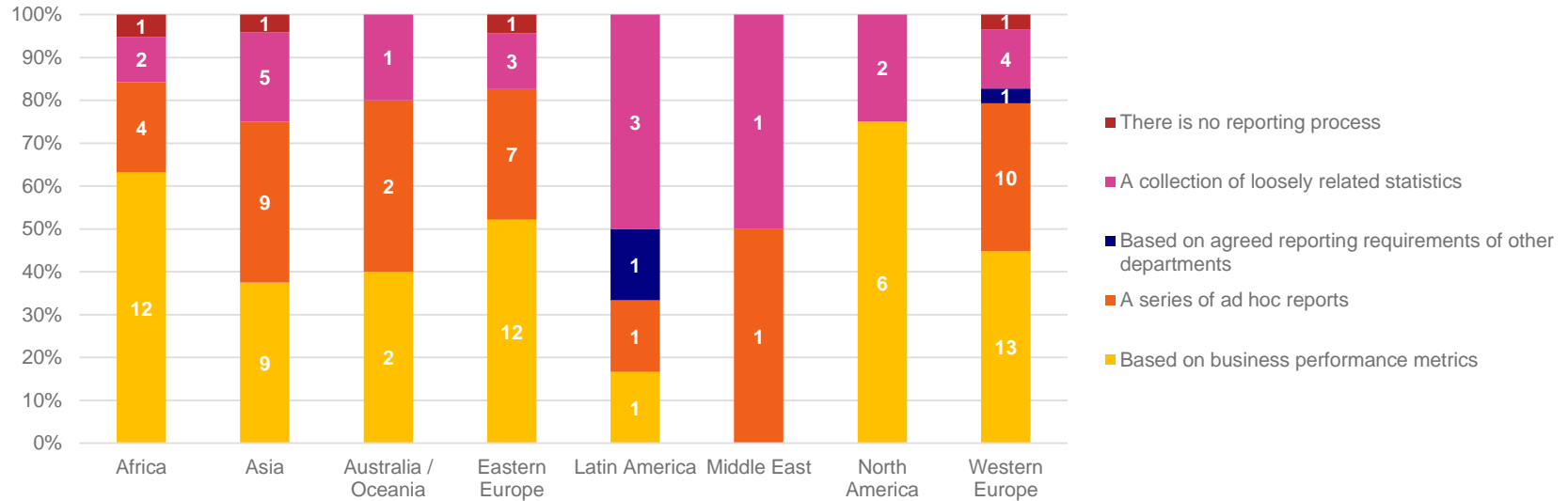
Less than 50% of the respondents use clear business performance metrics. There is much room for improvements.

Performance reporting process – Additional insights

Correlation with maturity

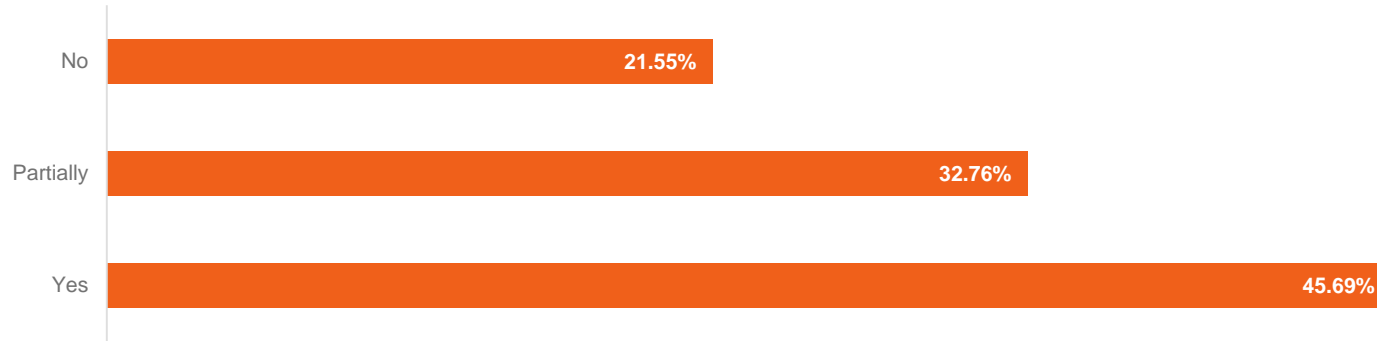


Performance reporting process – Additional insights By region



Existence of RA measurement framework

“32. Does an RA measurement framework exist?”



Almost half of the respondents say they have a thorough RA measurement framework. 2 out of 10 don't have a framework at all.

Lower maturity levels were reported where an RA measurement framework is absent.

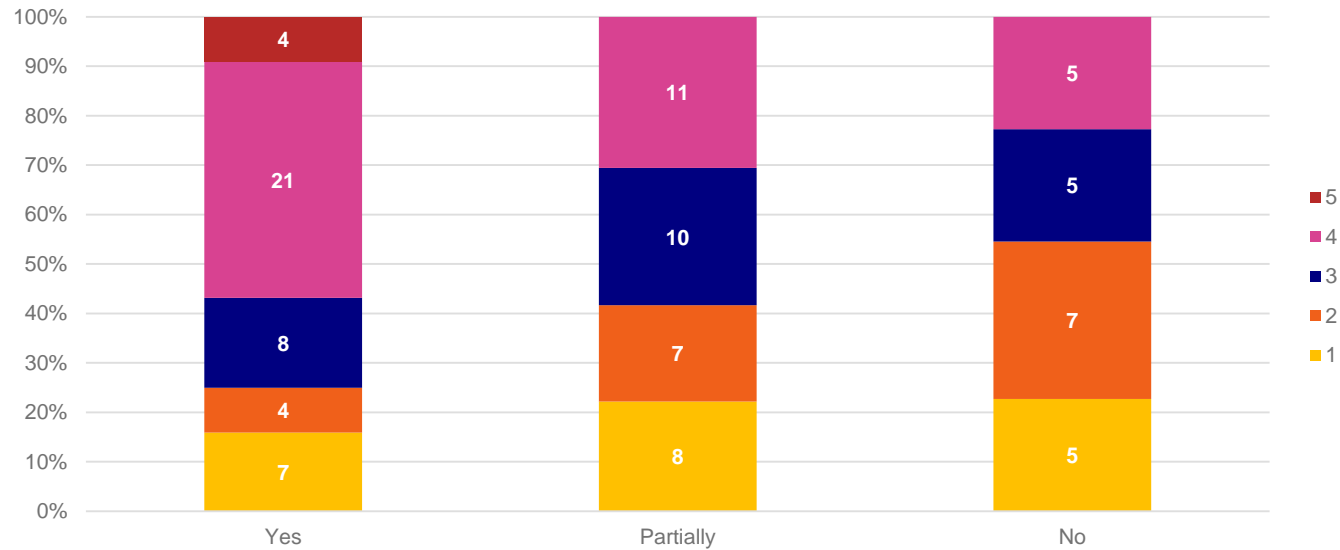
116 valid responses

TM Forum Community Comments

Without an RA measurement framework it is difficult to justify investments in RA activities.

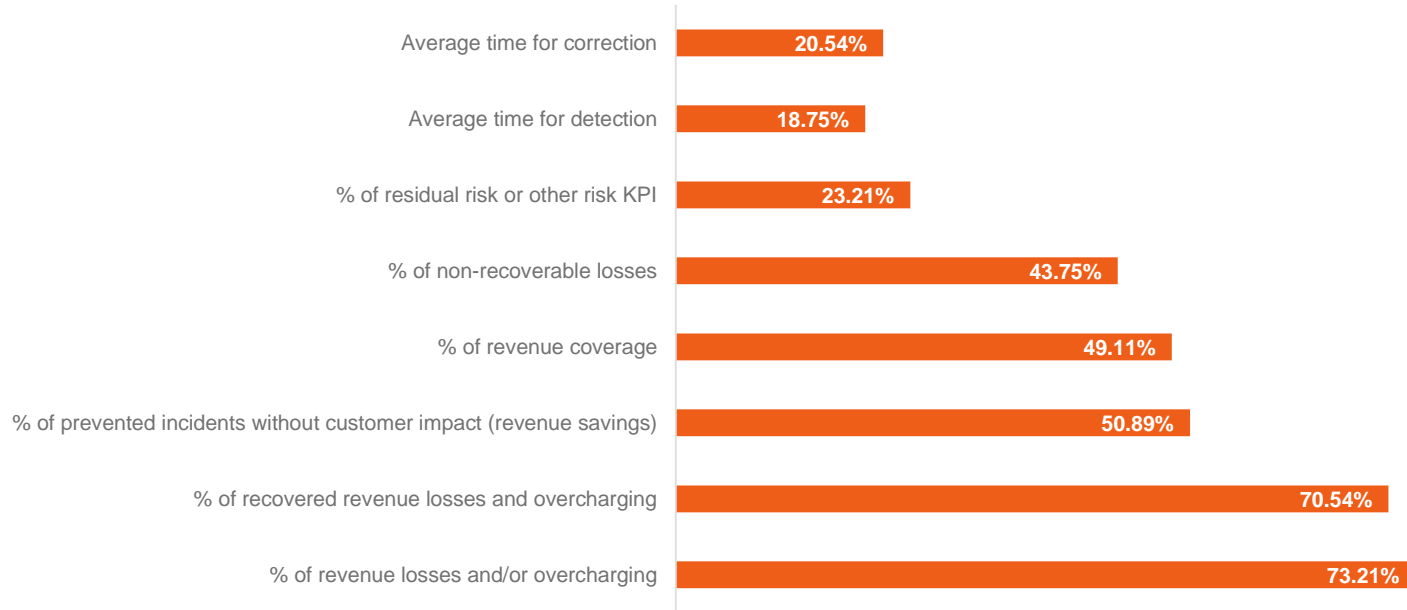
Existence of RA measurement framework – Additional insights

Correlation with maturity



Regular use of KPIs for reporting to management

“33. Which of the following KPIs do you use regularly in your reports to management?”

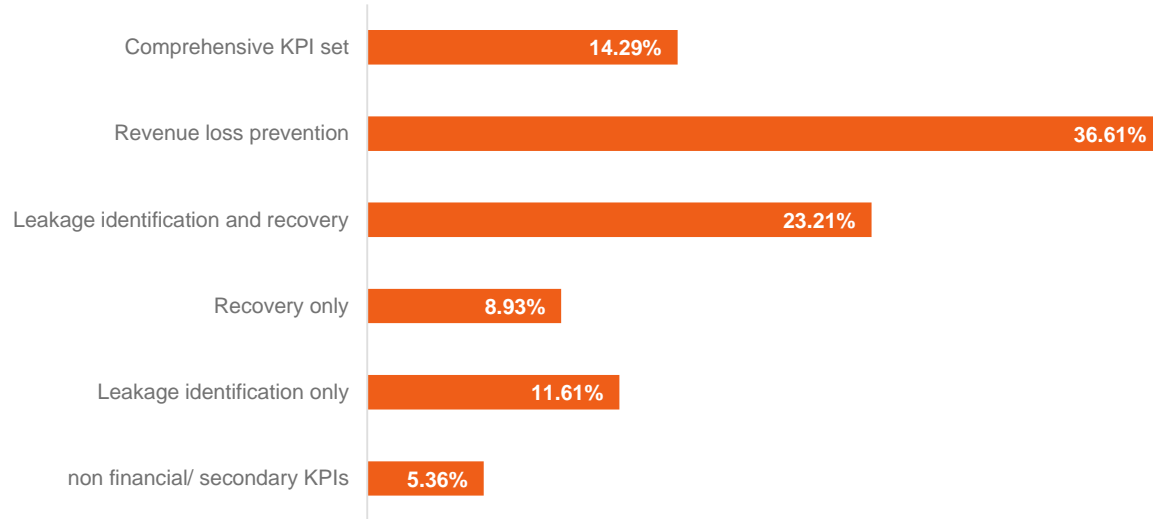


116 valid responses

Regular use of KPIs for reporting to management (2/2)

Characteristics of KPI sets used by survey participants

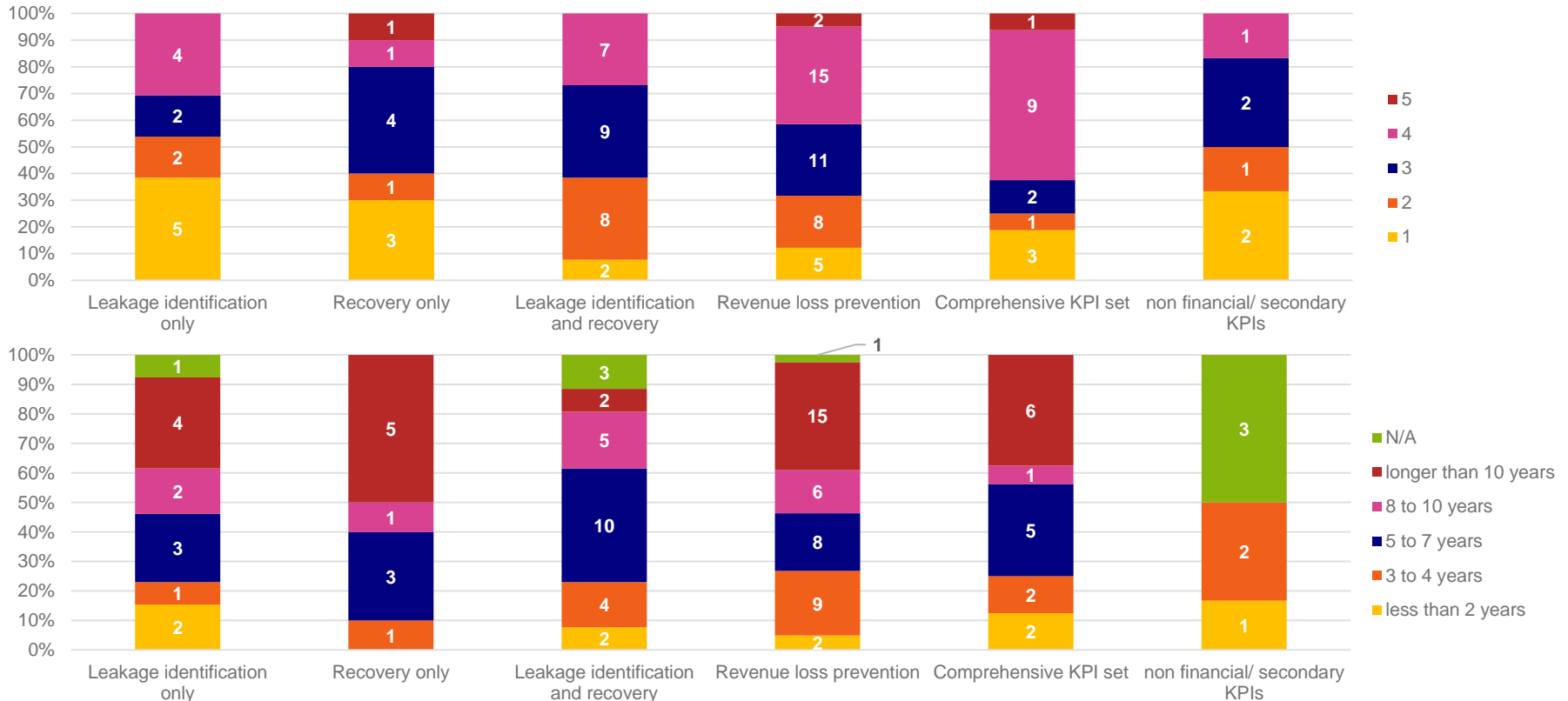
Performance and Reporting



116 valid responses

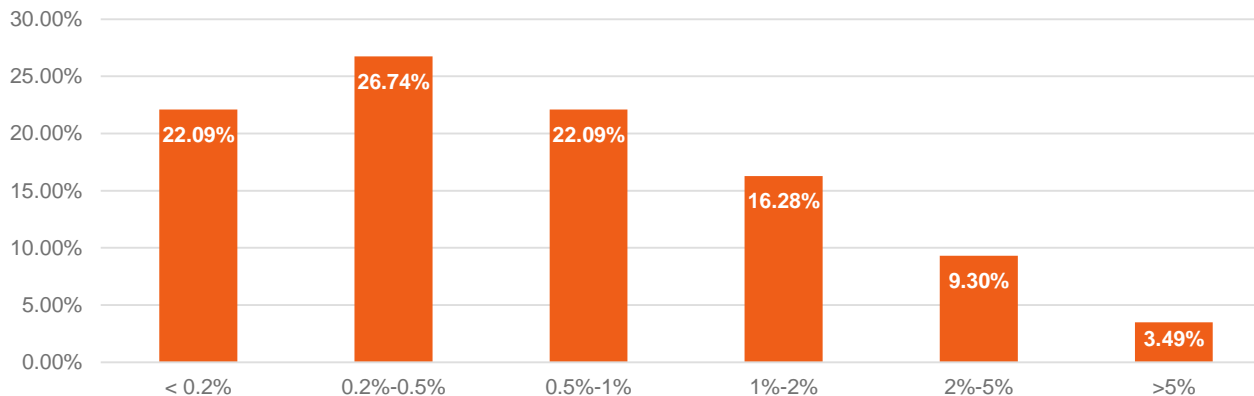
Regular use of KPIs for reporting to management – Additional insights


Correlation of KPI type groups with maturity and Years of existence of RA organizations



Reported KPI value “% of revenue losses of total revenues, before the recovery procedures”

“34. What is the value you reported last year for the KPI “% of revenue losses of total revenues, before the recovery procedures” calculated vs revenues?”



 The approximated average is 0,91% revenue losses (calculated based on average per category). The average revenue coverage levels per group are in the range of 45-65% (57% average).

(86 reported a value for this KPI)

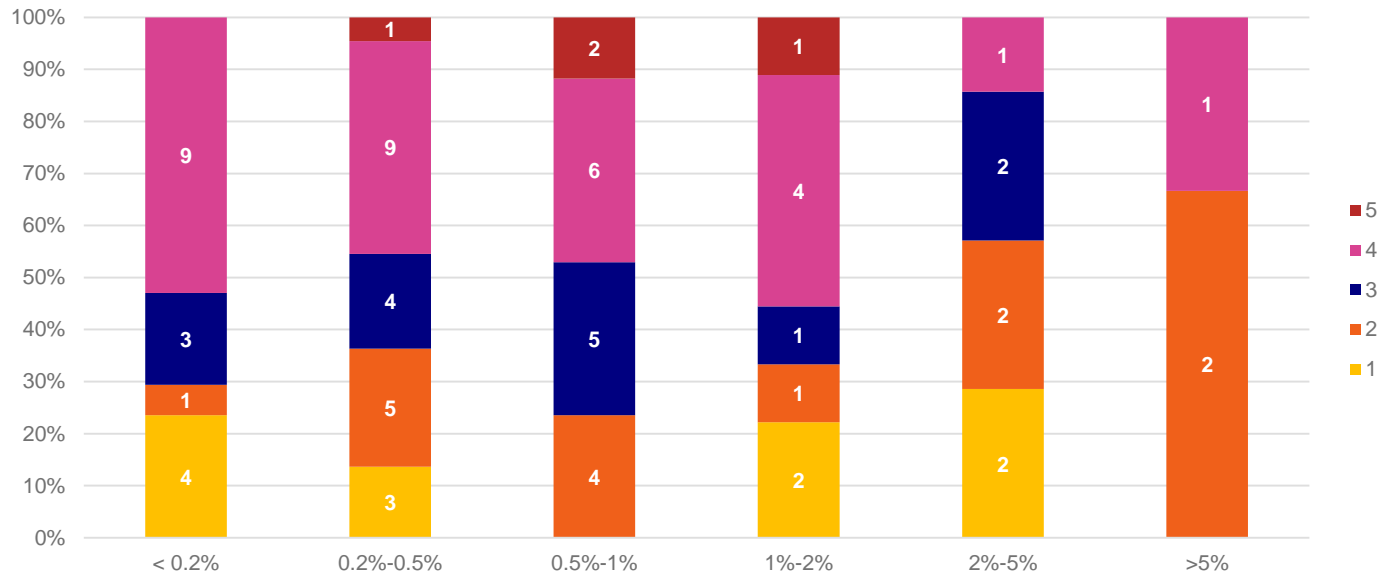
116 valid responses

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It is important to have in mind that this chart only depicts part of real revenue losses (dependent on coverage levels). Real losses are significantly higher.

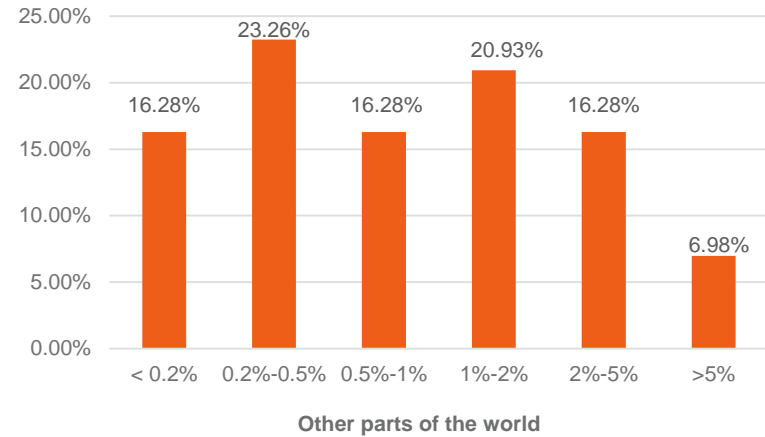
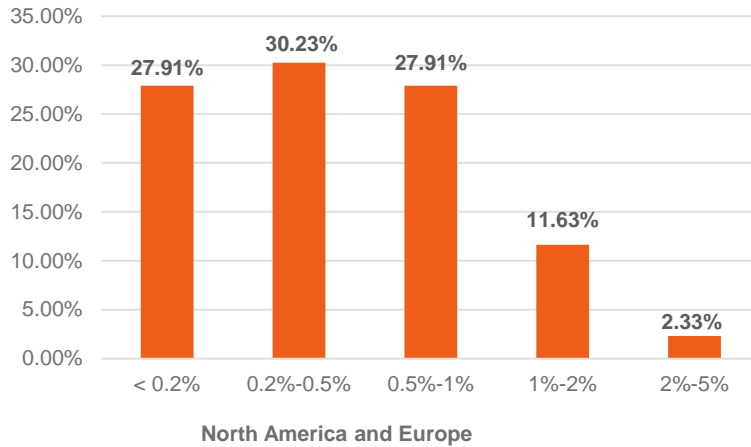
Reported KPI value “% of revenue losses of total revenues, before the recovery procedures” calculated vs revenues

Correlation with maturity

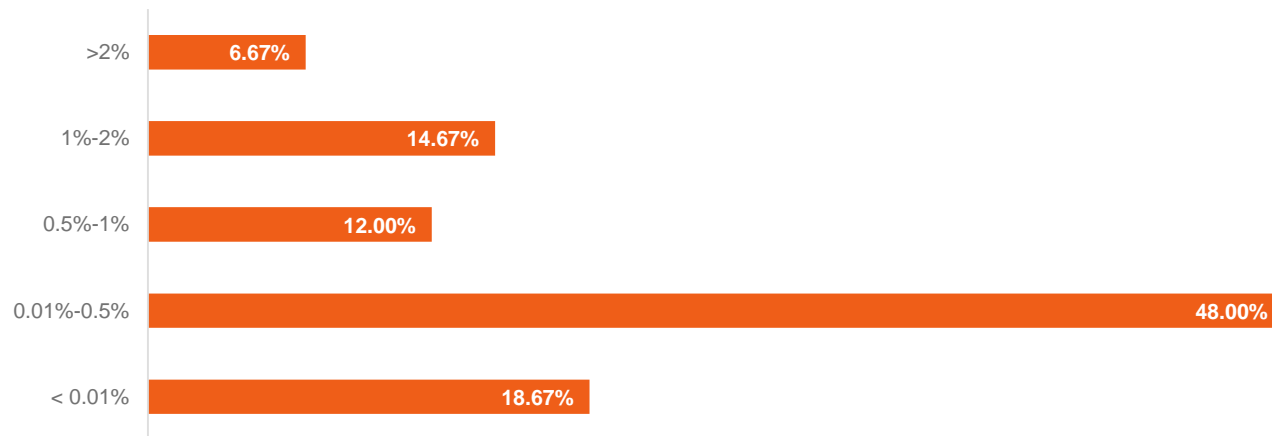


Reported KPI value “% of revenue losses of total revenues, before the recovery procedures” calculated vs revenues

Region grouping: North America and Europe (west and east) vs. other parts of the world



Reported KPI value “% of non-recoverable losses” calculated vs revenues “35. What is the value you reported last year for the KPI “% of non-recoverable losses” calculated vs revenues?”



The approximated average value is 0,55%

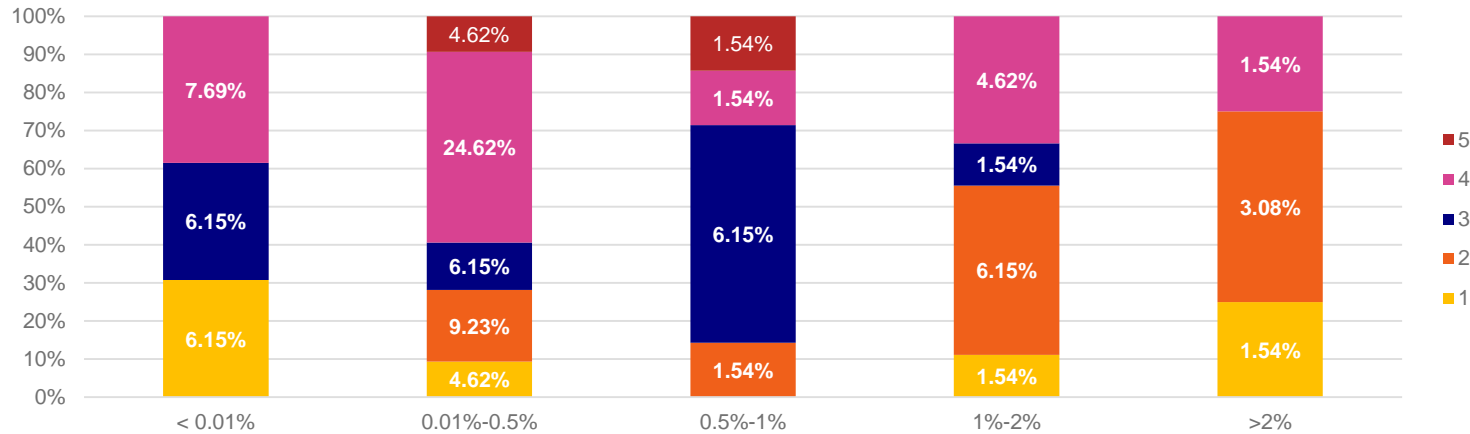
(75 reported a value for this KPI)

116 valid responses

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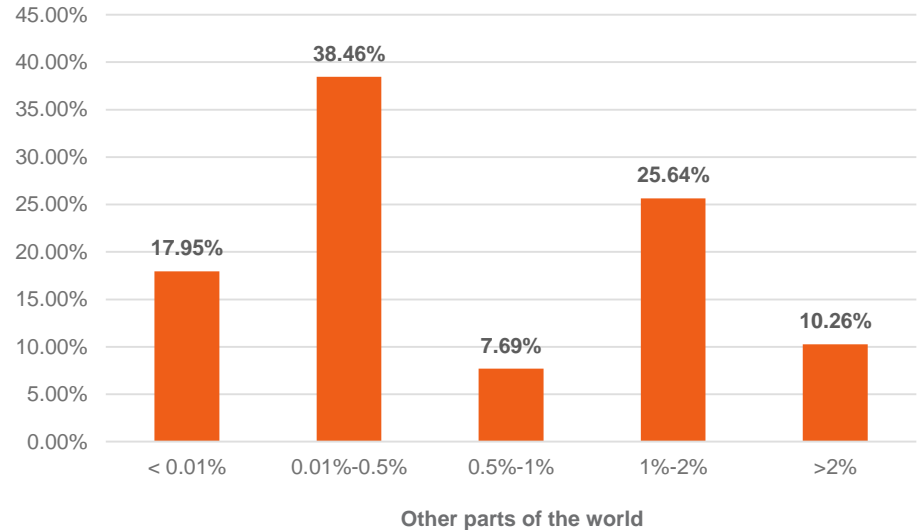
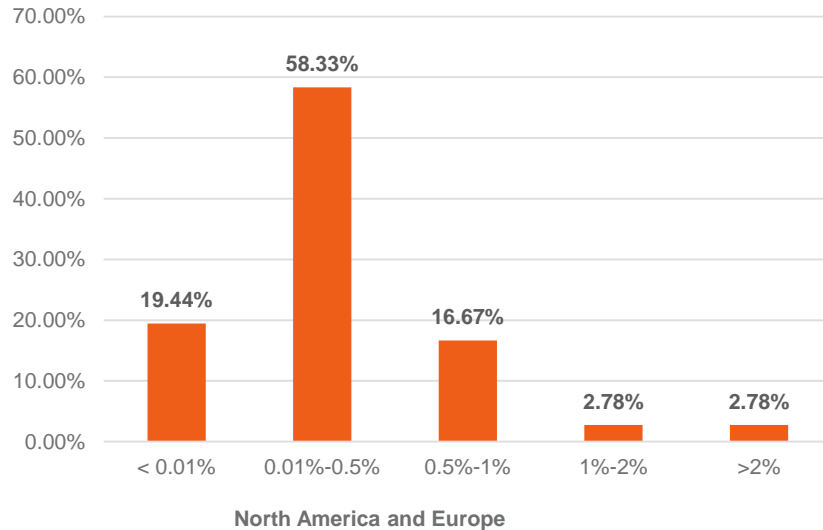
The depicted percentages represent huge amounts of money and clearly emphasize the need to prevent rather just detect.

Reported KPI value “% of non-recoverable losses” calculated vs revenues Correlation with maturity



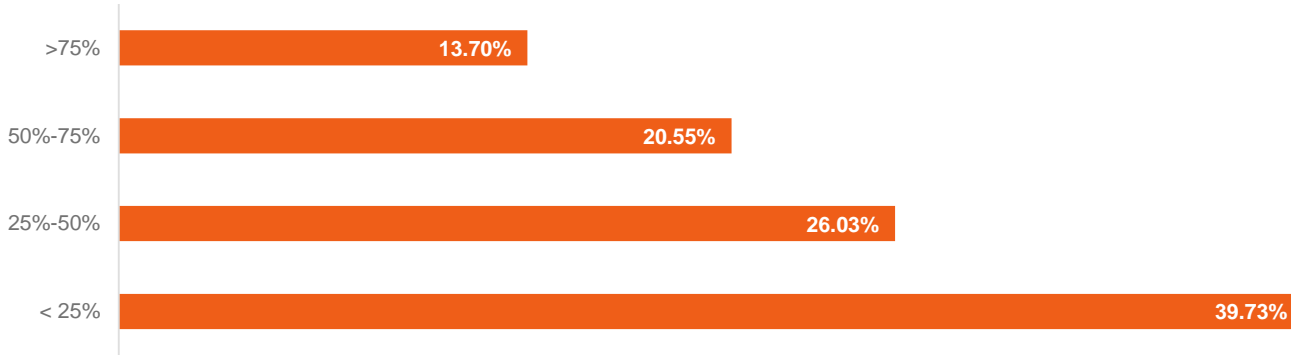
Reported KPI value “% of non-recoverable losses” calculated vs revenues

Region grouping: North America and Europe (west and east) vs. other parts of the world



Reported KPI value “% of recovered revenue losses” calculated vs revenue losses

“36. What is the value you reported last year for the KPI “% of recovered revenue losses” calculated vs revenue losses? ”



The approximated average recovery rate is 40%. Considering each company’s detected revenue leakage and coverage extent, and conservatively extrapolating this to a scenario in which all the revenues are covered, the recovery rate is 46% of the detected “leakage”.

(73 reported a value for this KPI)

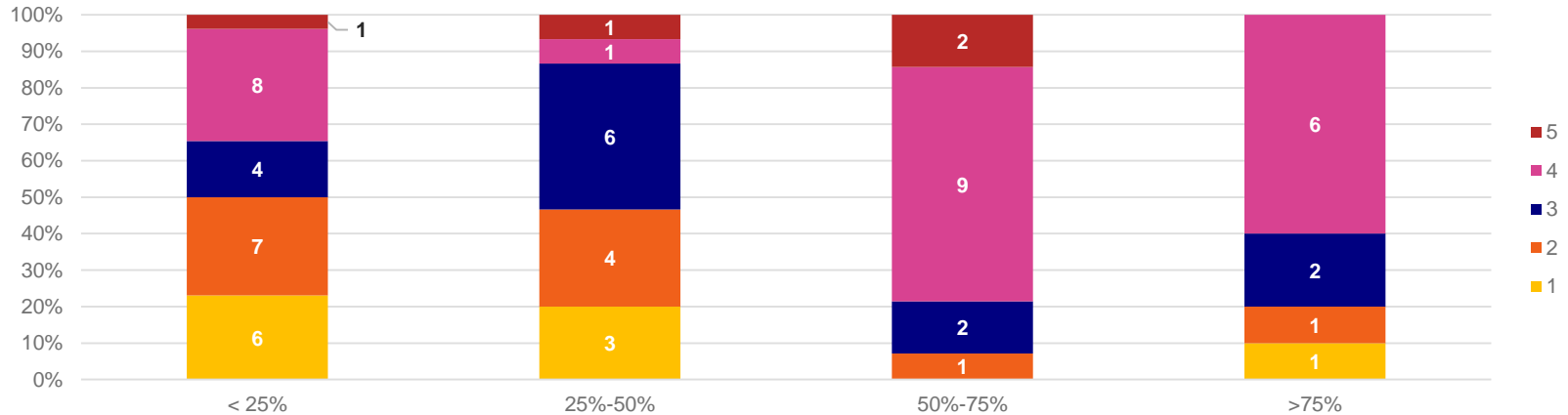
116 valid responses

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Two third of the he respondents recover less than 50% of the leakages they detect, the answer is not more efficient recovery, but more prevention. Over 66% of the respondents recovered less than 50% of the leakages they detect, this means that real losses are huge. More aggressive recovery strategies are expensive and may have undesirable business impacts on customer satisfaction, brand reputation etc.; this again highlights the advantages of leakage prevention over detection and attempting to recover.

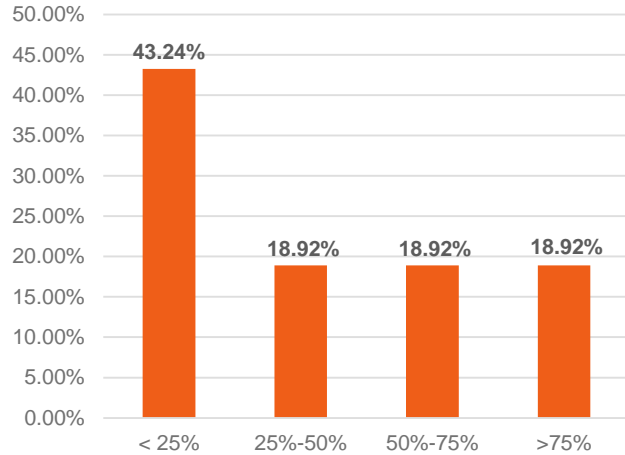
Reported KPI value “% of recovered revenue losses” calculated vs revenue losses

Correlation with maturity

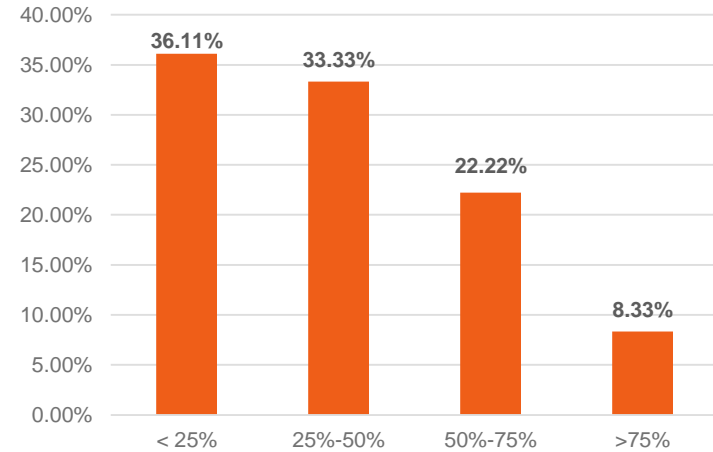


Reported KPI value “% of recovered revenue losses” calculated vs revenue losses

Region grouping: North America and Europe (west and east) vs. other parts of the world

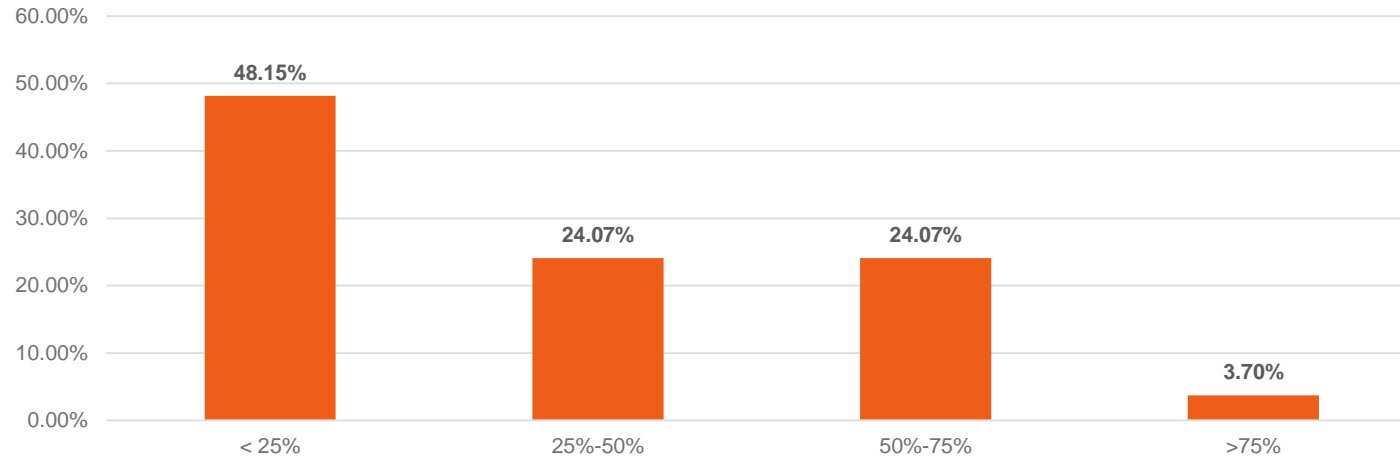


North America and Europe



Other parts of the world

Reported KPI value “% of prevented incidents without customer impact (revenue savings)” calculated vs total volume of RA incidents
“37. What is the value you reported last year for the KPI “% of prevented incidents without customer impact (revenue savings)” calculated vs total volume of RA incidents? ”



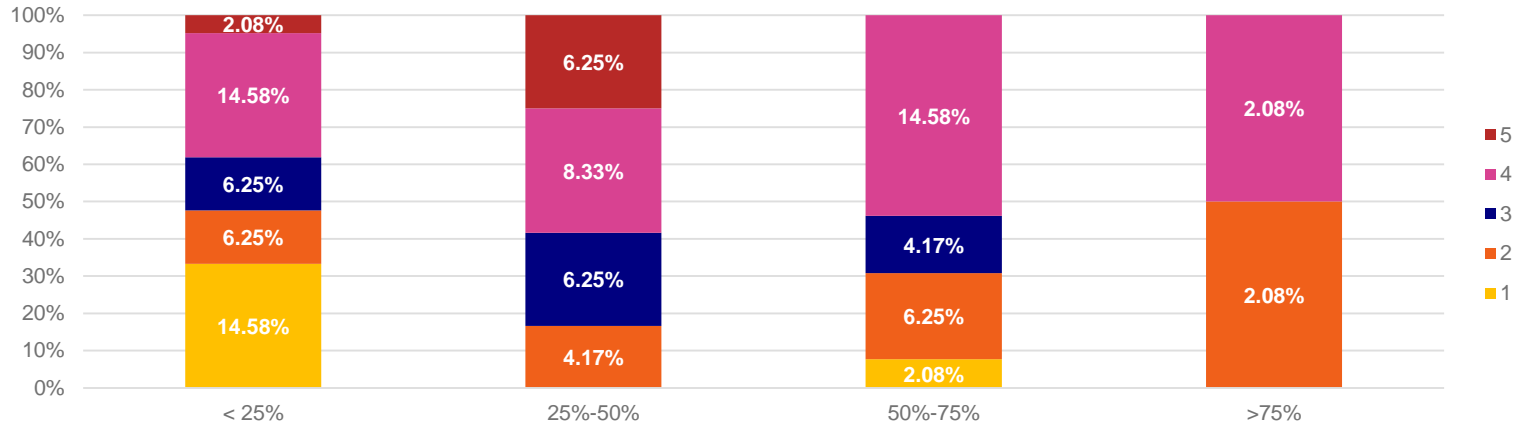
33% incidents were resolved before impacting customers.

(54 reported a value for this KPI)

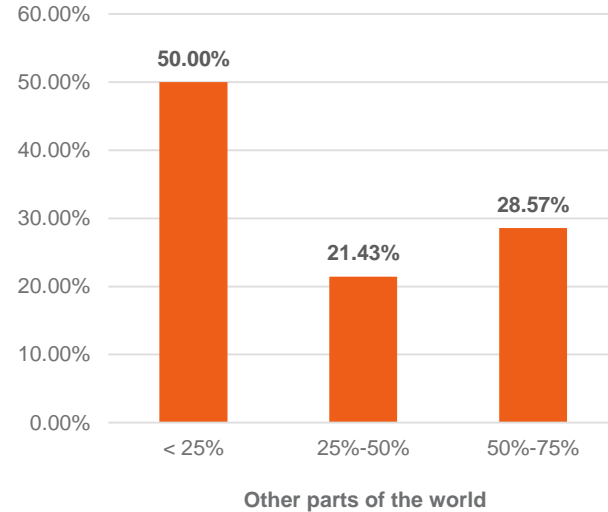
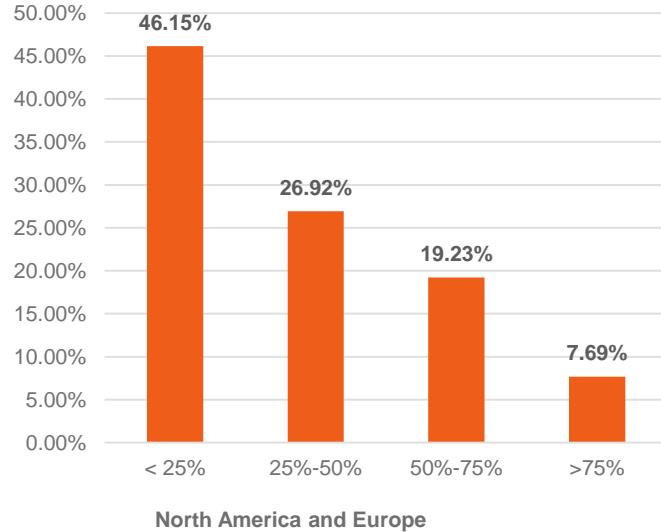
116 valid responses

Reported KPI value “% of prevented incidents without customer impact (revenue savings)” calculated vs total volume of RA incidents

Correlation with Maturity



Reported KPI value “% of prevented incidents without customer impact (revenue savings)” calculated vs total volume of RA incidents
Region grouping: North America and Europe (west and east) vs. other parts of the world



thanks

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