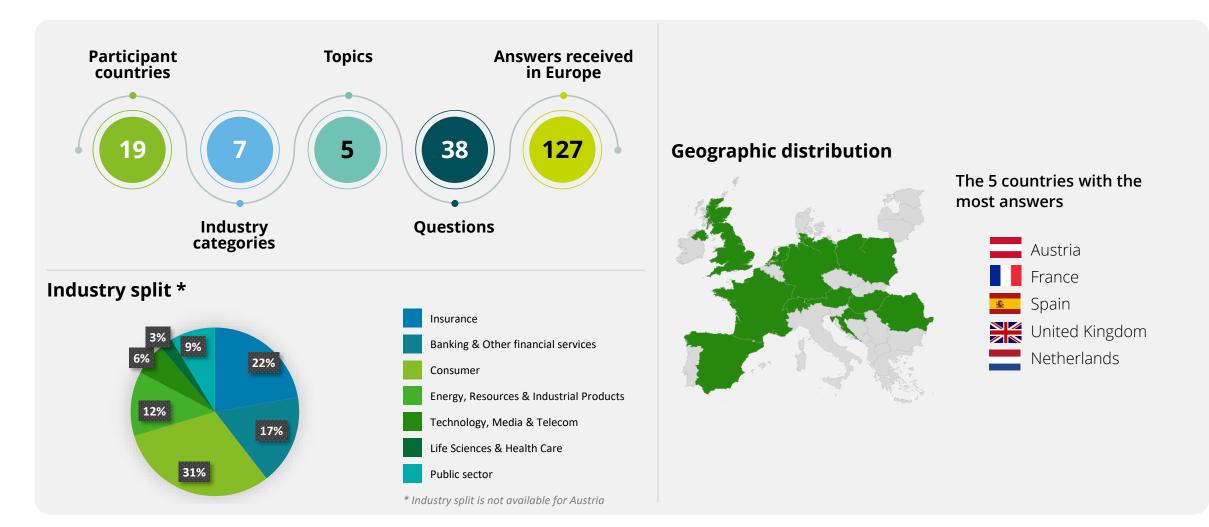




# INTRODUCTION



# Introduction Answers Overview



# Introduction Methodology, goal and steps

The Enterprise Architecture (EA) Maturity Study was conducted to assess the current state and future expectations of EA practices across various industries and 19 countries across Europe. The study utilised a comprehensive survey methodology, gathering quantitative and qualitative data from over 120 respondents to provide a holistic view of EA maturity across five key areas of questions (Scope & Vision, Talent, Operating model, Methodology & Standards, Architecture Assets)

The **primary aim** of the study is to **understand** how organisations are **evolving their EA functions** to meet the demands of an ever-changing business environment. This includes examining the **integration of EA** into strategic **decision-making**, the adoption of **agile** and **green IT** practices, and the **professionalisation** of **EA roles and responsibilities**.

#### 4 stages of the study:

#### **1** Survey design Elaboration of a comprehensive and detailed survey that covers each aspect of the maturity of architectural **2** Companies' answers functions Companies' self-assessment on each survey question regarding their current and 3 years horizon perspectives (between May and July 2024) **3** Result analysis 60 Understand the main trends and theirs expected evolution in the next 3 years, based on the gathered results **4** Results presentation A general synthesis containing all the main trends observed and for each question, a detailed presentation with the industry split indication

# Introduction A reminder of the questionnaire content

## A course of 38 questions divided into 5 themes:

The objective of the study is to enable you to:

- Assess the maturity of your architecture practice
- Understand your positioning in relation to companies in the same sector of activity
- Explore the trends and challenges of Enterprise Architecture in your sector of activity in Europe.
- To position yourself in relation to your European peers



# **SYNTHESIS**

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# Index :

- 1. A shared ambition for more independence and strategic impact...
- 2. ... in an ever-changing environment, where agility and green practices are no longer options, but imperatives ...
- 3. ... while taking into account resources and budget constraints.
- 4. To succeed, talents and their careers must be managed by professionalizing and supporting them ...
- 5. ... improve architecture internal organization ...
- 6. ... and modernize architecture practice tools and frameworks ...
- 7. ... all under rigorous management, in order to guarantee the achievement of objectives.
  - What to remember



### 1 - A shared ambition for more independence and strategic impact...



## More visibility and decision-making power for more impact and consistency

To increase their decision-making power, architects seek to:

- Be more present with the business lines to capture ideas as they emerge and address them holistically rather than only from the IT perspective
- Communicate and further explain the added value of architecture.
- Develop an organizational structure that enables architects to be present and effective across various strategic topics.
- Actively participate in strategic projects and major transformations (over 80% of architects are planning to be more involved) to ensure projects follow a unified strategy to achieve consistency and efficiency
- Increase **visibility** of initiatives to EA (only 35% of organisations have full visibility).
- **Improve staffing** internally and externally (40% of companies report issues with architects' availability)



### Greater Independence of architecture teams to address all aspects of architectural topics

#### The objectives sought by the companies surveyed are the following:

- Legitimately **cover all architecture layers**, including business architecture and data architecture; while **focusing more on low-level assets**, like solution or integration architecture diagrams
- Respond more meaningfully to business needs by approaching initiatives holistically.
- Organise the teams so that they are present and competent on the various architectural topics.
- Ensure that architecture teams are externally attached to the IT organisation to ensure a more independent perspective and offer their services in a more advisory manner.
- Empower architecture teams with budget autonomy to facilitate quick and effective decision-making.

Majority of architects stressed the importance of being supported by strong sponsors when setting IT priorities to ensure that architecture runs smoothly.



Compared to today, the proportion of architects who anticipate having decisionmaking authority is expected to double over the next three years, rising from 36% to 72%.



of EA teams expect to have budgetary autonomy in three years time



## 2 - ... in an ever-changing environment, where agility and green practices are no longer options, but imperatives ...



## A need to integrate the architecture function into agile practices

The study highlights the willingness of participants to:

- Actively collaborate on **agile projects** as part of the agile team
- Ensure the maintenance of **principles and guidelines** while adapting to the changing needs of projects
- Ensure that the **architecture can adapt and evolve** in alignment with both the projects and the organisation

The need to **consolidate governance and strengthen architecture orientations** through principles, patterns and accelerators was raised.



### Align Enterprise Architecture with Green IT principles

#### Integrating GreenIT and IT for Green into the architecture strategy

The **integration of Green IT concerns into the EA Framework** is still in its early stages and companies will need to quickly consider how to address this issue.

This is not only to **incorporate the full range of ESG guidelines** but also to help the Business **align with local policies and regulatory requirements at the EU level**, which are expected to evolve in the coming years.

Integrating Green IT into enterprise architecture will ensure that **new systems comply with established requirements** and enable **governance based on data regarding the carbon footprint** of technological platforms.



of architect teams expect to be integrated in agile teams in the next 3 years



of EA teams have already integrated Green IT in their methodological framework *"Green IT will be a key factor to include in our plans for the future"* 



### 3 - ... while taking into account resource and budget constraints.



## Budgetary growth still very low, with over 67% of clients expecting no change in 3 years

#### The current situation:

- EA's value is often underestimated, leading to insufficient funding for ongoing development and innovation.
- Quantifying EA's ROI remains a challenge, making it difficult to justify increased budget allocation.

#### Necessary Focus in the next three years:

- Stronger Value Communication: EA teams must get better at showcasing their value using clear metrics and linking their work to business goals.
- New Funding Avenues: Exploring alternative funding models (e.g., cross-charging, innovation funds) will be crucial.
- **Continuous Advocacy**: EA leaders must consistently champion their function's importance and advocate for necessary resources.



## A general lack of resources is one of the top factors harming the achievement of objectives

#### The current situation:

- Only 45% of EA teams report having enough staff, indicating a widespread challenge in meeting current demands.
- Beyond staffing, **EA initiatives are hampered by a pervasive lack of resources**, including budget and tooling, which limits their effectiveness.

#### Expectations for the future:

- 89% of respondents envision a "correctly sized team" in the next 3 years.
- **Streamlining for Efficiency**: Beyond simply increasing headcount, architects are prioritising the streamlining of roles, responsibilities, and objectives.



Despite the increasing importance of EA, budgetary growth remains limited with an average increase of only 3% in IT budgets, making it tough to keep up with rising costs and invest in resources.



Although less than half of the respondents currently report having a correctly sized team, there is optimism for the future. In fact, 89%, of respondents, 44% more than today, expect to have a team of the appropriate size within the next three years.



## 4 - To succeed, talents and their careers must be managed by professionalising and supporting them ...



## Professionalise training plans to retain and build skills

One of the actions to remediate the lack of resources, **is to professionalise the architecture training path**, with a twofold objective:

- Train architects on the latest technologies, and improve their skills and knowledge
- **Retrain in-house experts** to retain and increase architectural capacity and compensate for the lack of resources available on the market.



### Different sourcing strategy is needed to fill architecture roles

Companies are adopting a differentiated sourcing strategy to meet business and technical needs by focusing on both internal and external resources and, beyond, increasing headcount, prioritising the streamlining of roles, responsibilities, career paths and objectives.

**Internally**, the emphasis is on developing business expertise and leveraging internal knowledge. Externally, companies are utilising consulting firms and specialised institutions for specific expertise and efficiency.

In the next three years, there is a projected shift towards increased sourcing from consulting firms and universities, while reliance on internal resources is expected to decrease. This balanced approach optimises talent acquisition for architecture roles.



More than half of companies express a desire to enhance their training programs, with 66% planning to implement a specific training plan for architects within the next three years.



Currently, architect resourcing involves a combination of internal & external strategies. 72% of respondents report sourcing architects from consulting firms to address one-off needs, tap into specific expertise, or bolster the capacity of their architecture teams.



### **5** - ... improve architecture internal organisation ...

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	_	
	$\smile$	

## Governance to ensure the overall coherence of the Information System

#### A formal definition of the roles and responsibilities of architects..

aligns all stakeholders, clarifies expectations, improves efficiency, motivation, and engagement, and reduces conflict situations for all teams to function smoothly and successfully.

#### Continuous improvement of governance and architecture committees

A mostly centralised organisation with a trend toward a hybrid model to improve flexibility, autonomy, and efficiency while maintaining overall consistency.

#### Strengthening decision-sharing and monitoring

ADR strengthens formalisation, transparency and alignment of decisions via ADR (+26%).



#### Systematically integrate security aspects into architectural guidelines to better secure the Information System

### Security considerations are well integrated into the architecture principles but are rarely applied in practice

Architects are used to work with security, addressing critical security issues in an environment of increasing cybercrime.

#### Separation of responsibilities in security architecture

Architecture and security teams are often organisationally separated, with collaboration limited to adherence to the investigation process.



of companies have clearly defined the roles and responsibilities of architects



of teams report integrating security architecture into their scope *"Security is not our responsibility, the security team handles it"* 



### 6 - ... and modernise architecture practice tools and frameworks ...

## A strong presence of technological standards

#### A TOGAF architecture repository still very present

#### Adoption of technological standards for greater efficiency

Technology standards are chosen to:

- Standardise internal solutions: avoid customisation, reduce the diversity of the IS, ensure better alignment between teams and between systems
- Facilitate the onboarding of experts through the sharing of technical support
- Ensure interoperability with partners.

### Equip architecture teams to support decisionmaking and gain efficiency

### Complete and improve the reliability of the company's architecture documentation to enable better informed decisions:

- Facilitate the knowledge of environments and targets already defined
- Cover all layers of architecture from business to IT and data
- Capitalise on and share knowledge to better control impact

#### **Optimise the management and allocation of architecture resources** using ITSM (IT Service Management) tool.



of architects base themselves on technological standards.



of architects will integrate all layers of business architecture, including applications and data.



of companies will have a formal procedure equipped by an ITSM.



## 7 - ... all under rigorous management, in order to guarantee the achievement of objectives.



## It is a necessary step for the EA functions to enhance architecture governance

The enhancement of architecture governance is leveraging several important points:

- Defining & measuring business and financial KPI's to support ongoing measurements. Half of the respondents indicate to focus on defining, implementing and measuring business and financial value metrics for the EA function in the next three years.
- improving the quality of documentation
- facilitating communication with management
- demonstrating the value that architecture brings to the organisation



## Become a part of strategy business cases to signal the value-driven role of the EA function

The projected increase in **collaboration and participation of the EA function in strategic business cases and decision-making processes** are signalling a future where EA functions will play a more central and value-driven role in the company.

For this step, an ongoing assessment of the EA function is necessary to get an external view of the achievements of objectives.

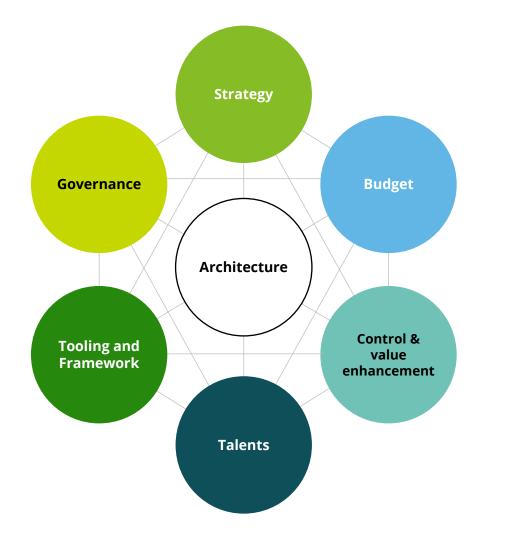


Enhancing architecture governance is a key area for improvement for many respondents, with 41% aiming to establish enhanced governance bodies within the next three years.



The percentage of architects who envision being part of strategic business cases is expected to increase to 89% in the next three years, compared to the current 47% who are involved today.

## Conclusion A multi-dimensional architecture to meet new business needs



#### **Increased Strategic Impact:**

EA functions are expected to gain more visibility and decision-making power, enhancing their ability to influence business outcomes.

#### Agility and Green IT:

There is a strong trend towards integrating EA into agile practices and aligning with green IT principles.

#### **Resource and Budget Management:**

Despite the growing importance of EA, budgetary constraints remain a challenge. Organisations are exploring new funding models and advocating for better resource allocation.

#### **Talent Management:**

Professionalising EA roles through targeted training and differentiated sourcing strategies is crucial for meeting future demands.

#### Governance and Tools:

Strengthening governance structures and modernising EA tools and frameworks are essential for maintaining coherence and efficiency in EA practices.

# DETAILED RESULTS

### **Detailed Results**

Scope & Vision

organization?

the IT organisation.

organisations

an effective approach.

An independent entity for the EA function shows the second

highest increase of more than 10 % in addition to consulting

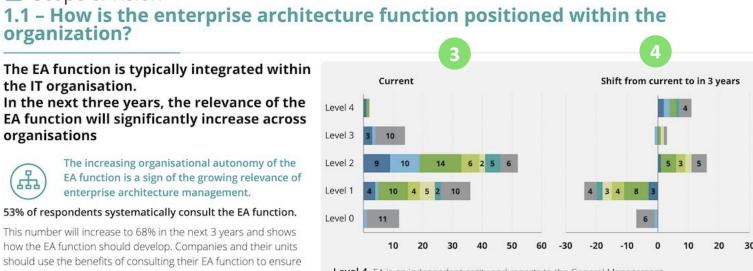
EA function independently and in a more advisory manner

regardless of where the entity is located.

involvement. This shows the companies' willingness to build the

H

### **Reading Guide: Explanation of the Slide Framework for Questionnaire Results**



Level 4. EA is an independent entity and reports to the General Management Level 3. EA is attached to a non-IT department

Level 2. EA is attached to the IT department and is consulted systematically

Level 1. EA is attached to the IT with limited influence on the technical aspects Level 0. EA is mainly done at the project team level





Public sector Unknown

**Question text** as presented in the questionnaire

1

(4)

5

6

- **Detailed analysis** of the question (2) results
- **Respondents' positioning** to date 3 in absolute value
  - **Difference** between 3 years from now and today in absolute value
    - If positive, there will be more respondents in three years
    - If negative, there will be fewer respondents

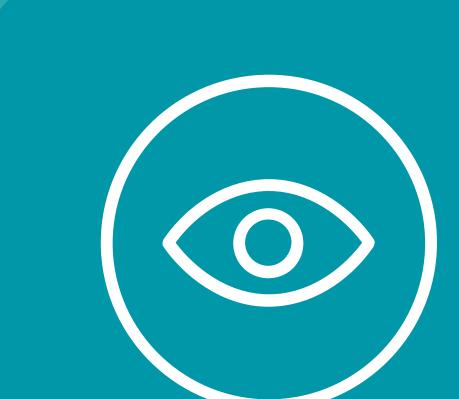
Maturity levels: List of responses to the questions

Legend: industries according to their representation

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# **SCOPE & VISION**

Identify the importance of the role of the Architecture function in an organisation



# Scope & Vision 1.1 – How is the enterprise architecture function positioned within the organisation?

The EA function is typically integrated within the IT organisation. In the next three years, the relevance of the EA function will significantly increase across organisations



The increasing organisational autonomy of the EA function is a sign of the growing relevance of enterprise architecture management.

#### 53% of respondents systematically consult the EA function.

This number will increase to 68% in the next 3 years and shows how the EA function should develop. Companies and their units should use the benefits of consulting their EA function to ensure an effective approach.

An independent entity for the EA function shows the second highest increase of more than 10 % in addition to consulting involvement.

This shows the companies' willingness to build the EA function independently and in a more advisory manner regardless of where the entity is located.



Level 4. EA is an independent entity and reports to the General Management

- Level 3. EA is attached to a non-IT department
- Level 2. EA is attached to the IT department and is consulted systematically
- Level 1. EA is attached to the IT with limited influence on the technical aspects
- Level 0. EA is mainly done at the project team level



# Scope & Vision 1.2 – What is the scope of the Enterprise Architecture function?

#### Most companies currently focus on the lower levels of EA like application and technical architecture. However, the business, data and organisational level will increase in relevance.

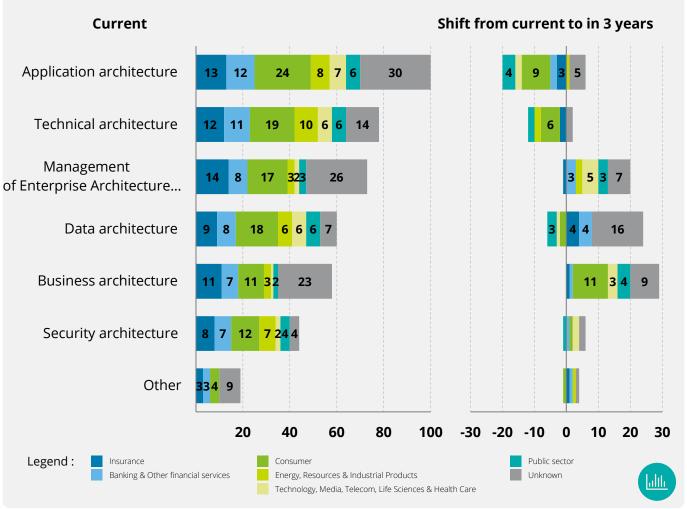


The expansion of the EA functions' scope shows that companies start applying EA on a wider variety of topics and trust in its potency to tackle problems.

51% of companies currently include Business architecture in the EA scope. This number will increase to 71% within the next 3 years.

This growth is signifying the biggest of all surveyed architecture dimensions, showing the importance of collaboration between the EA function and the business. The alignment of the business view with more technical domains are necessary for the success of the EA function. Regular assessments of the business architecture are imperative.

Additionally, the application architecture is the second most used domain. The continual improvement of these two domains are significant success factors and impact the other domains. © 2024 Deloitte SAS



# Scope & Vision **1.3 What is the mission of the EA function and its challenges?**

#### Traditional topics like project support, strategic alignment and governance are currently the main mission of the EA function.



The focus will remain and extend to also include topics like green IT, process optimisation, information systems and business collaboration to activities

Based on the survey, the EA function will continue to focus on project support, strategic alignment and application rationalisation.

In the next 3 years, we will witness an expansion of the EA mission towards new subjects like green IT, process optimisation, information security and business collaboration. This underlines the role of EA as a transformation partner in the company. A broad view of the company enables the opportunity to achieve the highest impact for the company and their employees.

	Current		Shift from current to in 3 years
۱.	Project support	<b>15 12 23 8 5 6 27</b>	4 8 5
	Strategic alignment	<b>15</b> 12 <b>21 6</b> 4 <mark>4</mark> 21	437
	Application rationalization	<b>13</b> 10 20 7 6 3 19	4 11
	Governance and coordination	<b>13</b> 8 22 7 4 6 17	6 6
	Designing and building	<b>16</b> 9 <b>21 7</b> 5 6 12	3 5 5 10
	Business collaboration	13 9 18 62 <mark>5</mark> 18	3 10
	Make or buy study	<b>14</b> 8 <b>18</b> 636 14	334 8
	Technology framework	<b>15</b> 10 17 9 34 11	5 8
	Technology watch	<b>11</b> 7 <b>13</b> 9 52 16	337
	Technical debt management	<b>12</b> 11 18 423 9	3 9
	Information security	9 8 14 4 <mark>2</mark> 45	
	Information system	<mark>7 2 11 43</mark> 2	3 3
	Process optimization	<mark>4454</mark> 3	4384
	Green IT promotion	2 <mark>52</mark> 7	<b>6 3 5 3 3 9</b>
	Other	22	
		20 40 60 80 1	00 -30 -20 -10 0 10 20 30
	Legend : Insurance Banking & Other financial service	Consumer	Public sector

### 1. Scope & Vision

# 1.4 – Is the vision of the evolution of the Enterprise Architecture function formalised in a roadmap?

About a third of respondents have not yet formalised the vision of the EA function in a roadmap.

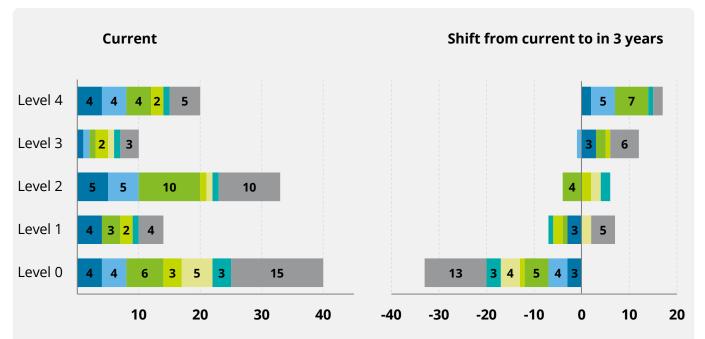
Most respondents plan on implementing roadmaps to focus on new best practices, align EA with the corporate strategy and develop EA functions.



The strong increase of roadmap usage and scope shows that companies will develop the EA function in a more organised and strategic manner.

A successful roadmap embraces new trends, good practices and new approaches of the organisation and should be one of the primary assets of an EA function. This would improve visibility of changes and future initiatives for the organisation.

50% of respondents currently use a roadmap in a limited way, e.g. for embracing new trends or aligning EA with the company's overall strategy. This number will increase to 62% within the next 3 years.



Level 4. The roadmap includes the developments of every EA dimension.

Level 3. The roadmap focuses on embracing new trends, good practices, and new approaches.
Level 2. The Roadmap is focused on aligning the EA function with the overallcorporate strategy.
Level 1. The roadmap is mainly built based on feedback in order to improve the EA effectiveness.
Level 0. No formal roadmap.



# Scope & Vision 1.5 – How is the Enterprise Architecture function funded?

#### Most companies still fund the EA function via the general IT or project budget. However, most companies plan on funding EA at least partially via a specific budget..

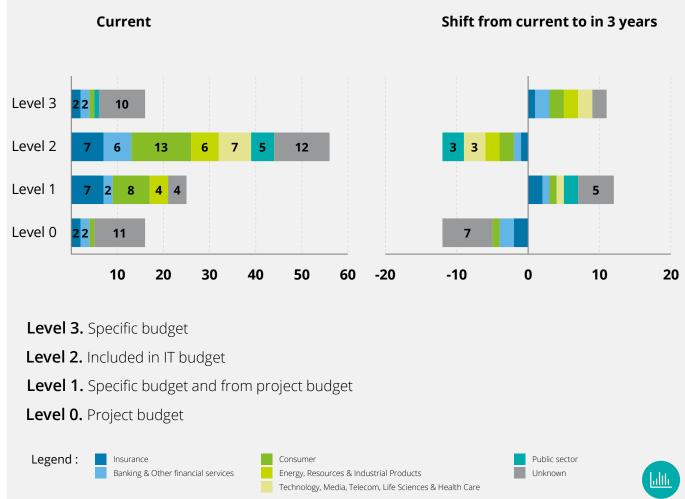


The increasing separation of funding from other budgets is consistent with the EA functions' increase in organisational autonomy.

At 47%, nearly half of all surveyed companies use the IT budget to fund the EA function. Although this number will decrease by 11 %, it will still be a significant funding line in the next 3 years.

The goal should be for survey participants to have a specific budget and to be partially financed through projects. This would make it possible for the EA function to grow and develop futureeffective measures with more resources.

Only 16% of respondents currently fund EA exclusively via a specific budget. This number will increase to 25% within the next 3 years. An EA team can achieve further success if it becomes independent of its organisational client. But the project activities are necessary to be in the transformation process of the company and should be a relevant part of the EA function.



### 1. Scope & Vision **1.6 – What is the Enterprise Architecture budget?**

Most companies currently use only a fraction of their IT budget for EA purposes. The data shows a clear trend towards a rising budget within the next 3 years.

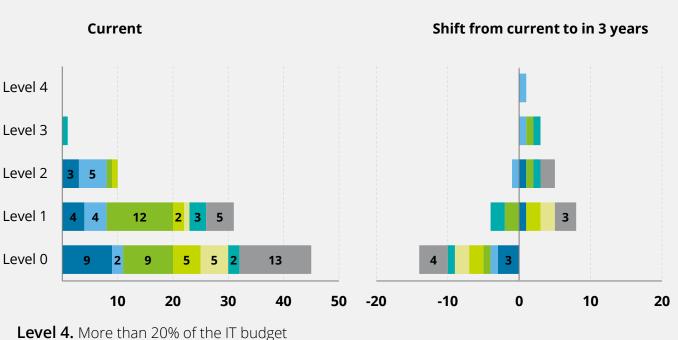


In order to fund the extending responsibilities, the budget of the EA departments will have to increase.

53% of companies currently spend less than 2% of their IT budget on Enterprise Architecture. This group will drop to 36% within the next 3 years.

At 41%, a plurality of companies will be spending between 2% and 5% of their IT budget within the next 3 years.

The increase of the budget will be a necessary step because the relevant tasks of the EA function are increasing too. EA leaders in their companies can use this budget to focus more strategy relevant tasks and collaborate more with important projects.



Level 3. Between 10% and 20% of the IT budget

- Level 2. Between 5% and 10% of the IT budget
- Level 1. Between 2% and 5% of the IT budget

Level 0. Less than 2% of the IT budget

Legend :



# Scope & Vision 1.7 - How often is the budget of the Enterprise Architecture function reviewed?

## About a quarter of respondents review their EA budget less than once a year.

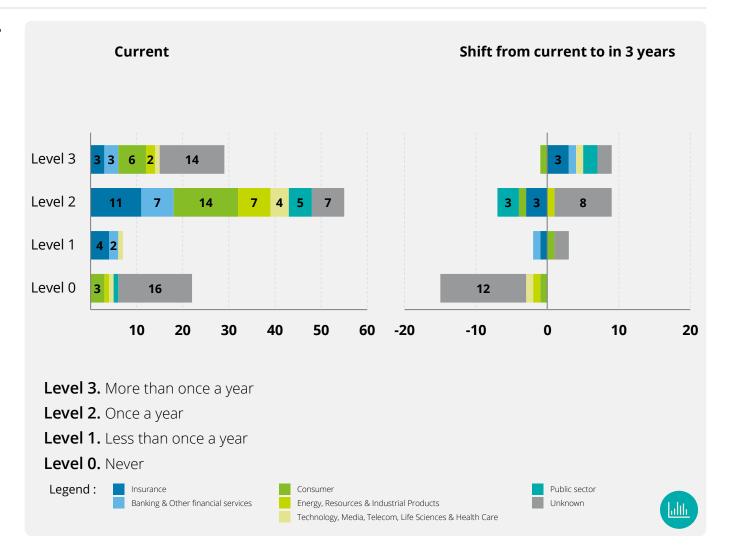


As the budget for EA function grows, the oversight of said budget must be adapted accordingly.

Whereas currently around 22% of respondents claim to never review their EA budget.

This number will decrease to 7% in the foreseeable future and that is a good sign of evaluation. Regularly aligning and controlling the budget is a very important part of managing the EA function. This allows activities to be planned and controlled more effectively. The resources used can be adapted to the requirements and needs of the company.

While already high at 26%, the number of companies reviewing their budget more than once a year will increase to 33% within the next 3 years.



### 1. Scope & Vision

## 1.8 - What is the Enterprise Architecture's level of knowledge / visibility of the company's strategic initiatives/programs?

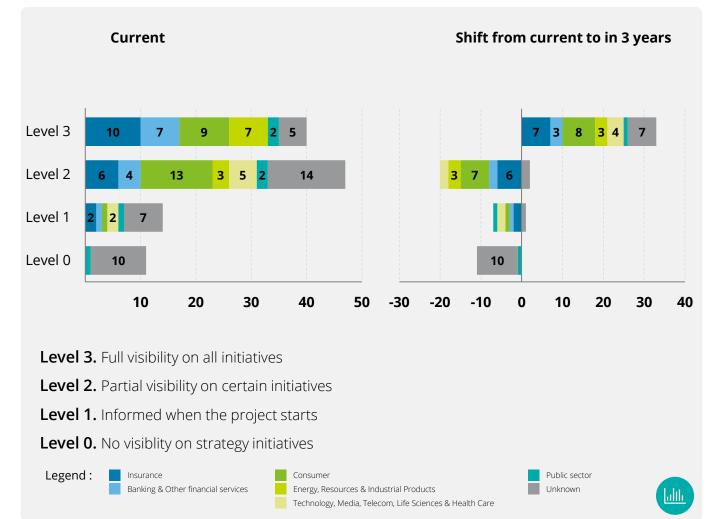
#### A minority of companies currently grant full visibility of all initiatives within the EA function. In the next 3 years this number will rise significantly.

(	aaa	

To put the rising budget and increasing autonomy to good use, EA departments will extend their involvement in strategic initiatives and projects.

Only in 35% of companies the EA department has full visibility of all initiatives. However, this number will surge to 65% within the next 3 years.

As an EA function, it is important to get the full visibility of business relevant actions to analyse and coordinate steps for the more technology-relevant domains. This also includes the start of new programs or projects in the organisation. Accordingly, the number of companies that only inform the EA function when projects start will decrease from 12% to only 8% in the foreseeable future.



## TALENTS

Measure the capacity of the Enterprise Architecture to manage, administer and retain talent





### 2.1 - What architecture roles are defined in the organisation?

There is a large spectrum of roles covering all competencies needed to meet architecture goals



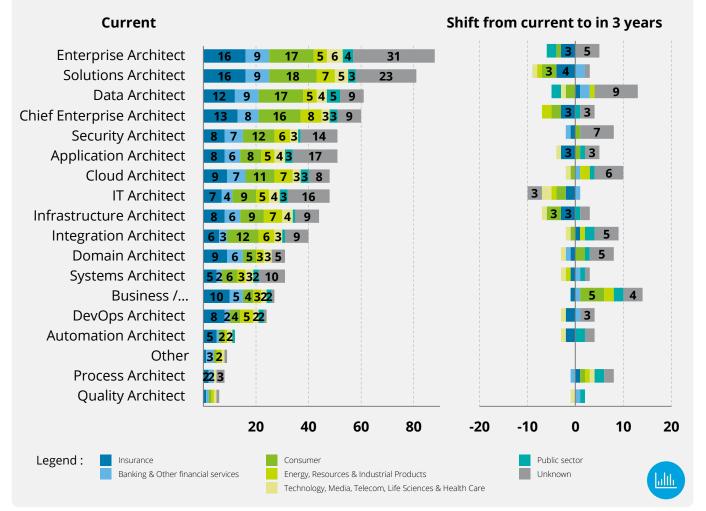
A diversity of roles from one company to another; covering most aspects of architecture

**Little change** is expected in most roles of the architects, with still a focus on enterprise, solution and data architecture.



An increased focus on business and data architecture, to fill the gap compared to other architecture fields.

The increased of focus on business architecture accompanies the objective of an end-to-end vision from business to IT.





### 2.2 - Are the roles & responsibilities of Enterprise Architecture resources defined?

#### There is a clear need to define roles and responsibilities, formalising the architects' mandate and communicating it transparently to stakeholders

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The roles and responsibilities of architects are increasingly documented to better align stakeholders and improve efficiency

Today, **only 9% of** companies do not have a definition of the roles and responsibilities. **In 3 years, almost all companies** will have **defined roles and responsibilities**, 91% of them formally, so it can be broadcasted to all teams.

In total **31% of companies plan to improve** the formalization of roles and responsibilities for more integration into the company's processes.

This helps to **clarify and align stakeholders**, improves efficiency in collaboration, clarifies expectations and encourages autonomy. It also highlights commitment and **reduces conflict situations** for the smooth functioning and success of teams.





### 2.3 – How do you find the different resources for architecture roles?

#### A differentiated sourcing strategy adapted to the needs of business and technical expertise



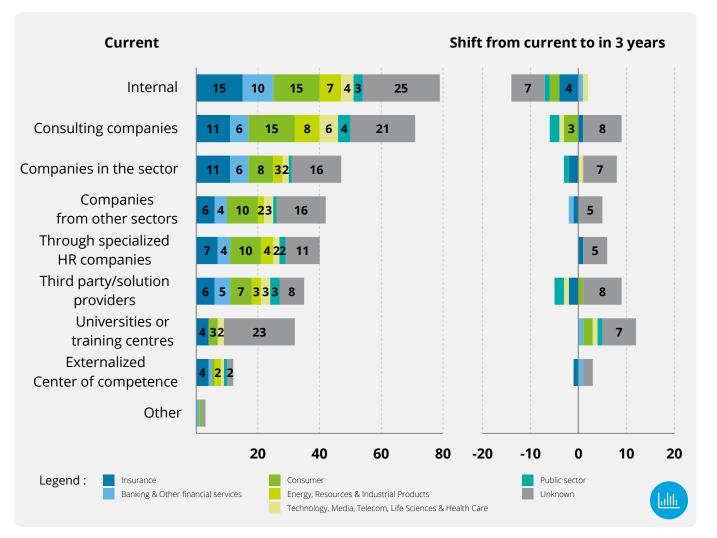
Internal sourcing for business expertise and knowledge capitalisation

**77%** of the respondents' source architects from **internal resources** that they **upskill into architects**. Allowing them to **capitalise** on business expertise and leverage the understanding of the culture and **internal knowledge**.



External sourcing for specialised expertise, oneoff needs or to gain in efficiency

**72%** of the respondents' source architects from **consulting firms**, for one-off needs, to meet **specific expertise** needs or to **increase architecture team capacity** on less strategic but time-consuming functions.





### 2.4 – What is the level of outsourcing within the Enterprise Architecture team?

## Outsourced resources complement internal teams that maintain business knowledge

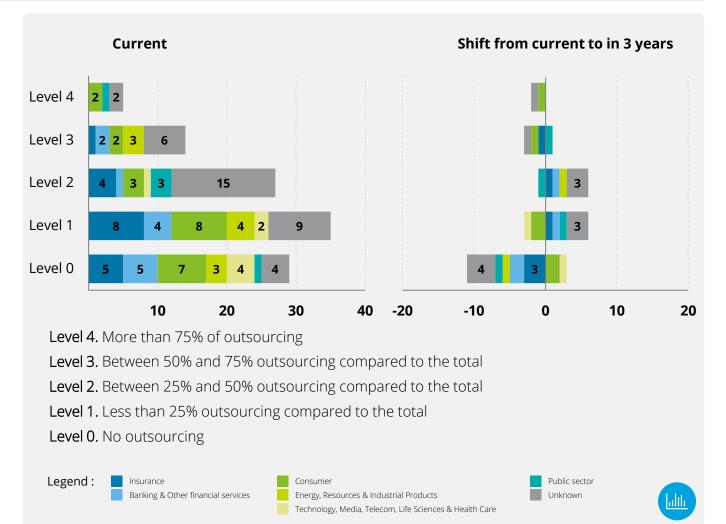


Outsourcing is necessary for expertise, flexibility and efficiency gains

More than **80% of companies outsource** part of the architecture team. Outsourcing is used to complement to inhouse architects who hold deep knowledge of the organisation.

Outsourcing is mainly used for:

- **Cutting-edge and technical** expertise that is not present in the company, making it possible to accelerate decision-making
- **Flexibility** through rapid response to one-off needs or to compensate for peaks in activity.
- Efficiency gains by entrusting a less critical part of the activity to a service provider without worrying about staffing issues. It should be noted that this outsourcing focuses more on the aspects of solutions, integration, technique or support.





### 2.5 – In your opinion, is the architecture team well sized to meet your objectives?

## There is a need to optimise architecture teams to achieve transformation objectives



#### A team correctly sized to meet the objectives

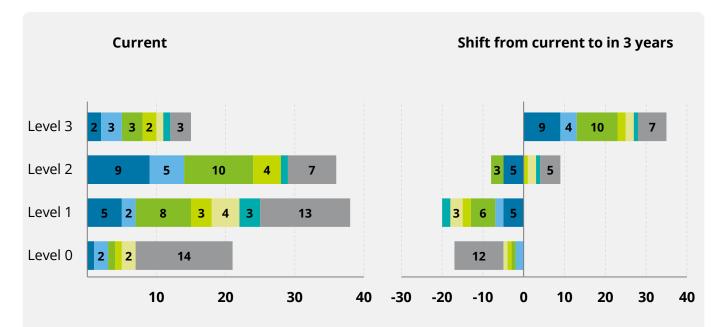
In 3 years, **almost all** the EA functions will be **correctly sized** compared to only half today.



Increasing the team size is not the only answer, a refocus of the objectives priorities allows to meet added-value objectives

**32%** say they **are already properly sized** despite that they **only partially meet their objectives**.

In addition to the sourcing strategy, to achieve the objectives, architects can also work on **reviewing their tasks and priorities** to free up time to **focus on value-added objectives**, and to delegate other tasks to the right stakeholders .



Level 3. The architecture cell is well sized and can meet its objectives
Level 2. The architecture cell is correctly sized and partially meets the Its objectives
Level 1. The architecture cell is poorly sized and partially meets its objectives
Level 0. The architecture cell is poorly sized and does not meet its objectives

2. Talents

# 2.6 – If Enterprise Architecture is not able to achieve its objectives, what are the main reasons?

# There are several factors affecting the ability to achieve objectives, of which the support of sponsors will be necessary



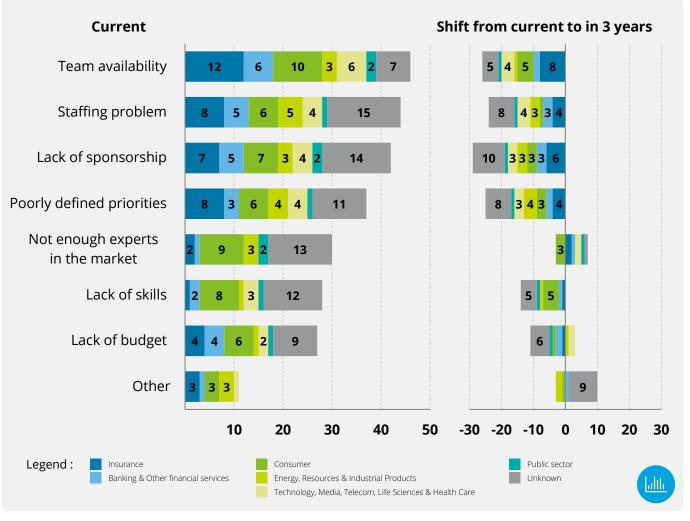
A match between the size of the team and the objectives to fulfill the architecture mission

Today, **40 %** of companies still report an **issue with the availability of architecture teams**. This is a subject that **55 %** of companies will address either by **improving staffing**, **externally** (question 2.4) or **internally** (question 2.5), or by **rationalising the objectives** (question 2.5).



#### Necessary support from sponsors

Sponsorship is still a concern for 35% of companies today. The key role of a sponsor (intended as someone capable of supporting an initiative in front of the company's business stakeholders, in order to obtain the necessary funds for its implementation) is to define and prioritise objectives and to provide guidance and resources © 2024 Deloitte SAS





### 2.7 – What are the main Enterprise Architecture training resources used?

## Qualified architecture teams, trained in emerging technologies and practices

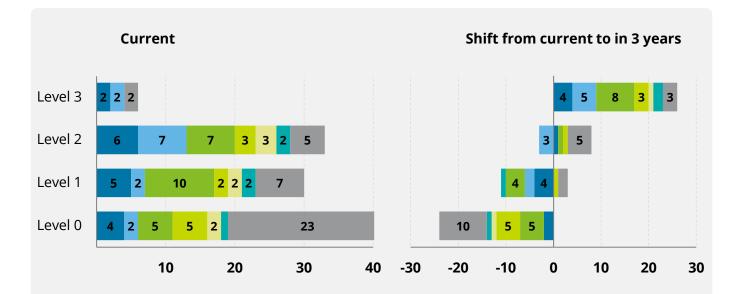


Training plans to strengthen the skills of architects but also to retrain internal experts into architects

More than half of companies say they want to improve the training path, reaching 66% of companies with a specific training plan for architects.

The objective is twofold:

- Train architects on the **latest technologies**, and improve their skills and knowledge
- **Retrain in-house experts into architects** and thus increase architectural capacity and compensate for the lack of resources available on the market.



Level 3. The architectural training plan establishes the necessary certifications for each type of architect career path

Level 2. An architecture-specific training plan is available, although certifications are not necessary

Level 1. Specific training in architecture is available, although it is not part of the a training plan

Level 0. There is no specific training in Architecture





### 2.8 – What is the career development plan for an architect?

## Giving architects perspective and allowing them to project themselves

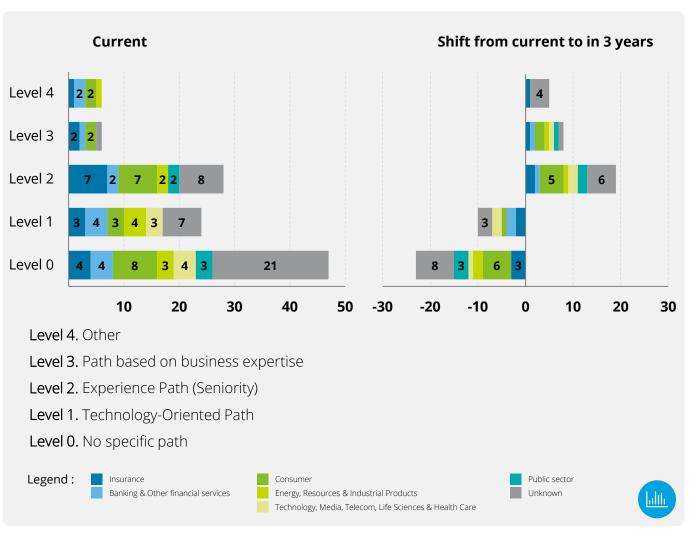


More development paths focused on experience or seniority.

There has been a transformation in the approach to career paths over the next 3 years, with **+22% of seniority-oriented courses**.

Breaking with current cultures where career development involves management, companies are considering better **recognition of expertise**. This would allow architects not only to project themselves into careers in expertise but allow them to gain visibility among all stakeholders.

This contributes also to an increase in **architect attraction and retention** allowing them to project themselves in an expert role within the enterprise.



# OPERATING MODEL

Identify how the enterprise architecture is executed and how its effectiveness is measured



# Operating model 3.1 – Is there an architecture governance body?

#### Trend towards stronger & better governance

## 

### Governance that is strengthened with KPI monitoring for continuous improvement

Governance is a critical factor in architecture, with **nearly all companies aiming to enhance their current governance structures.** This involves initially incorporating indicators and then leveraging these metrics within a continuous improvement process. **Measurement plays a key role in bolstering system effectiveness**, facilitating communication with management, and, importantly, **demonstrating the value that architecture brings to the organization**.

Many organizations have some form of architecture governance, ranging from basic definitions without periodic approvals (Level 1) to more structured processes with a committee to review and approve initiatives and defined KPIs (Levels 3 and 4).

A clear trend towards strengthening governance is observed. Over the next three years, many organizations plan to move to higher levels of governance maturity, with an increase in structured processes and continuous improvement practices.



- Level 4. Architecture governance is defined, a committee reviews and approves initiatives, KPIs are defined and there is a process for improvement
- Level 3. Architecture governance is defined, a committee reviews and approves periodically initiatives, tracking KPIs are defined
- Level 2. Architecture governance is defined, a committee reviews and approves initiatives, but there is no follow-up
- Level 1. Architecture governance is defined, but there is no periodic committee to approve initiatives Level 0. There is no officially recognized architecture governance body



## Operating model 3.2 – What is the architecture governance model used in the company?

## Architecture governance tends to be closer to the teams and to integrate the collective.

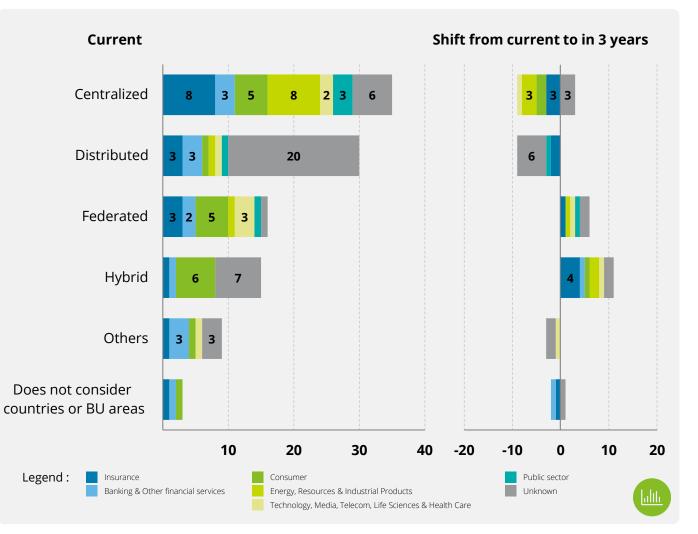


The trend points towards more collaborative and adaptable governance structures, aligning with the need for flexibility and integration within companies.

Today, companies employ various forms of architecture governance models, with a slightly higher prevalence of those opting for a centralized governance model where decisions are made centrally, and countries or business areas follow the guidelines set.

In a three years time span we note a slight **decline for centralized and distributed governance models** – where decisions are made independently in different countries or business areas - in favor of more **federated and hybrid governance models** to leave more **freedom locally or to federated business units** while ensuring overall **coherence** 

There is a move away from centralized and distributed models towards more federated and hybrid approaches. These models offer local flexibility while maintaining overall coherence. Companies are increasingly favoring governance models that integrated teams more closely and allow for local decision-making within a coherent framework.



# Operating model 3.3 – What is the role of Enterprise Architecture in the strategic decision-making process?

#### Increased impact of architecture on the business for greater consistency and efficiency



In a context of major transformation, a demand for more coherence is expected from the enterprise architecture function.

In the context of major transformations, there is the intention to more systematically involve EA in strategic decision making with over **80% of architects anticipating increased involvement** over the next three years.

This aspiration reflects both a company-wide desire and architects' ambition to significantly impact the organization. Achieving this requires:

- Enhanced communication and clear articulation of architecture's added value.
- An organizational structure that enables architects to be present and effective across various strategic topics.
- Stronger engagement with business lines to capture and develop ideas from inception.



Level 3. It is systematically called upon and for all strategic decisions Approval is required
Level 2. It is often called upon and for certain important strategic decisions, Approval is required
Level 1. It is often called upon, but it only has an advisory opinion
Level 0. Not involved or very little involved



# Operating model 3.4 – What phases of the IT initiative lifecycle does enterprise architecture participate in?

#### Enterprise Architecture mainly covers the upstream phases of projects but will also become more involved downstream

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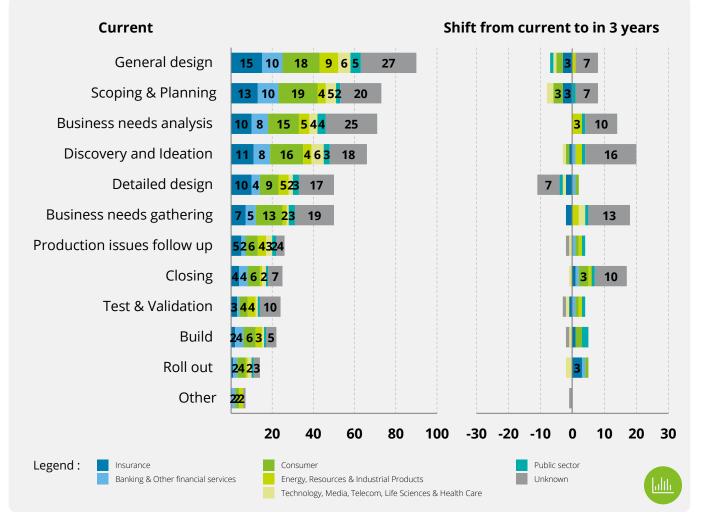
EA mainly active in upstream phases of IT initiative lifecycle

Across the sectors we see **EA today mainly participate in the initial phases of the IT initiative lifecycle**, with the highest involvement in General Design, Scoping & Planning, Business Needs Analysis, and Discovery and Ideation and a decreasing participation over the course of the IT initiative lifecycle.



#### Shifts in participation anticipated

Over the next three years, shifts in participation from Enterprise Architects are anticipated across all stages of the IT initiative lifecycle. While some Enterprise Architects foresee stepping back from certain phases, others anticipate becoming more actively involved. Notable trends include a decrease in expected involvement in General Design, Scoping & Planning, and Detailed Design. Conversely, there is an anticipated increase in engagement in Business Needs Analysis, Discovery and Ideation, Business Needs Gathering, and Closing.



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# Operating model 3.5 – What types of metrics are defined to measure the impact of enterprise architecture?

#### A focus on measurability

Today either none or some of EA impact measurement is employed

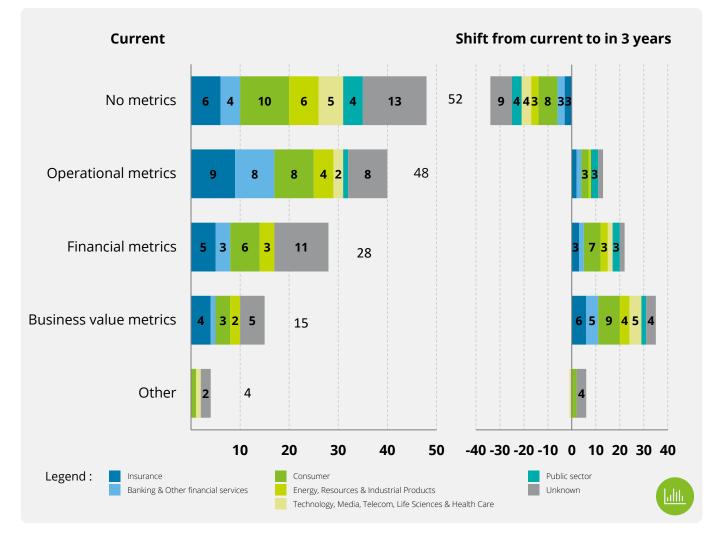
Various forms of metrics are currently used to measure the impact of enterprise architecture. However, still **35% of** companies indicate to not use any metrics to measure EA impact today, signalling employing metrics to be a next step in Enterprise Architecture Maturity. Among those companies that do utilise metrics, operational metrics are most widely adopted for measuring impact.



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#### Intention to measure impact of EA

Over the next three years, most companies not currently employing metrics plan to implement some form of measurement to gauge the impact of enterprise architecture. The most significant shift is expected towards the adoption of business value metrics.



# Operating model 3.6 - How is the allocation of architecture resources managed?

## Intention to formalise the resource management process and tooling



Various resource allocation methods are employed today

The current situation shows a varied distribution of resource allocation methods across different industries, with a noticeable number of organizations still relying on less sophisticated methods or no formal procedures at all.

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### More formal and tool-supported resource management expected

The anticipated shift over the next three years aims to address these gaps with many companies expecting to **move towards more formalized or even tool-supported ITSM practice**. This is a positive indicator of improved IT service management practices across various sectors.

Most major shifts are expected in the Consumer, Banking and Other industries, with improvements expected from Level 0 or Level 1 to higher levels, for example Insurance aiming to move from Level 1 to Level 4.



Level 4. Formal procedure, with a catalog of architecture-specific services supported by ITSM tools
Level 3. Formal procedure, based on a global catalog of IT services and support by ITSM tools
Level 2. Formal procedure but managed via a basic workflow (mailbox)
Level 1. No formal procedure: management through office applications
Level 0. No formal procedure and no tool



# Operating model 3.7 – How is the Enterprise Architecture function evaluated?

#### The professionalization of enterprise architecture is inherently linked to its ongoing evaluation



Enterprise Architecture Evaluation is practiced

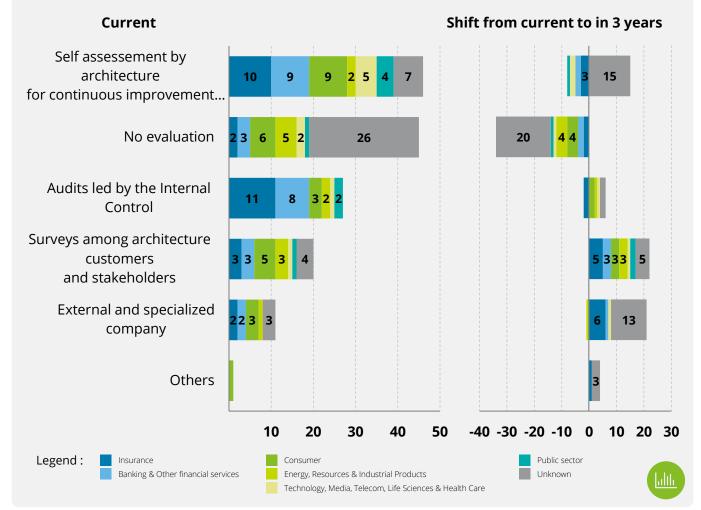
Today 70% of companies employ a form of evaluation, the most popular one being self-assessment. Despite evaluation being quite a common practice, about 30% of companies do not employ evaluation practices today. Interestingly, almost an equal number of companies indicate to not use any form of evaluation to companies using self-assessment for continuous improvements.



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#### Shift towards external evaluation

In the future almost all companies want to move to at least some form of evaluation of the enterprise architecture and some wanting to move away from self-assessment. Targeted means of evaluation are self-assessment, survey among architecture customers and stakeholders, and evaluation by external and specialized companies. Indicating a trend towards more external evaluation of the Enterprise Architecture function.



## METHODOLOGIES & STANDARDS

Align the vision, strategy and transformation approach and support the governance model with fundamental principles



44

#### 4. Methodologies & Standards

#### 4.1 – Within your IT delivery center, what framework(s) are used?

## TOGAF remains the reference but IT frameworks are still present and relevant

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TOGAF remains the reference framework, and is expected to continue growing

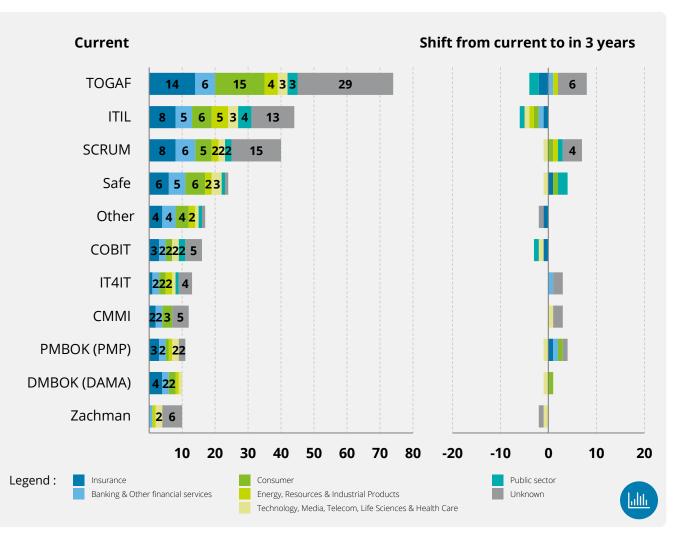
TOGAF is still used by more than 70% of architects as a reference framework, although it is often supplemented with IT, non-architecture-specific frameworks, in order to best respond to the company's context.

No significant alternatives are emerging in the field of EA frameworks.



## ITIL, Scrum and Safe are still quite present in companies

The architecture framework integrates methodological aspects of frameworks used by IT, such as ITIL, Scrum and Safe, to simplify architect/IT collaboration and ensure alignment throughout the project lifecycle.



#### 4. Methodologies & Standards

## 4.2 – Has an industry- or technology-specific reference standard been adopted as part of Enterprise Architecture?

#### In general, reference standards are not commonly adopted within EA, and if they are, they tend to be technology-related.



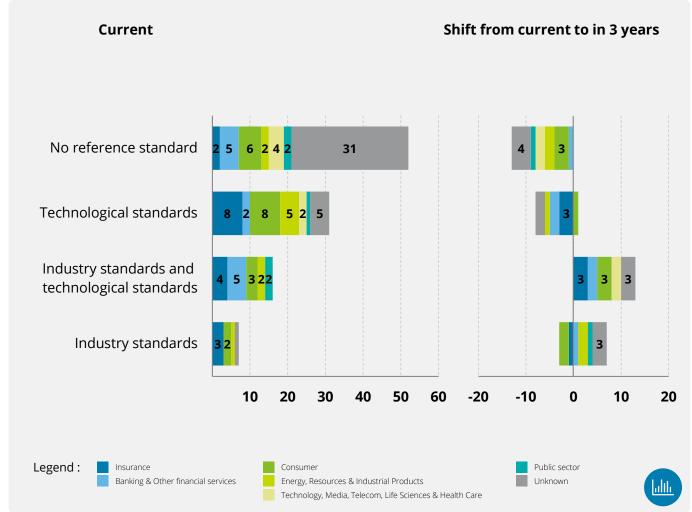
#### Use of standards limited to technology

Already nearly 45% of architects base themselves on technological standards. These are usually mature and allow for quick adaptation and time saving. This reduces the complexity of the Information Systems, accelerates the onboarding of new teams and stakeholders and allows you companies to benefit from the various forms of technical support, while also allowing interoperability with the partner and tool ecosystems.



### Industry standards used only as a source of inspiration

Only 22% of architects say they base themselves on industry standards, which are considered too generic and do not integrate the specificities of the company. That's why most companies only use them as a source of inspiration to set their own standards, but expect the capabilities to improve in the future.



# 4.3 – Are enterprise architecture tools used?

## Architects are modernizing their tools to address all layers of architecture



The industrialization of the architecture function requires the implementation of tools covering all layers of architecture

30% of architects are integrating all architecture layers into their tools, from business layers to infrastructure layers, including applications and data. A further 31% aims to capitalize on and share knowledge in order to be able to better control the impact of developments. This helps to improve the efficiency and impact of the architect's work.



#### Embrace EA tools instead of Office applications

In 3 years, all architects will use Enterprise Architecture tools for architecture work, ridding them of the need to use Office tools as primary tool of choice in the EA space, which is still present in 36% of companies today.



#### Level 4. Other

Level 3. Enterprise architecture tool exists to collect business processes, applications, data, and infrastructure, and their relationships

Level 2. An enterprise architecture tool exists, although it is used in very specific areas

Level 1. Office tools (Word, Excel, PowerPoint, ...) are used as Enterprise Architecture tools

Level 0. There is no enterprise architecture tool or it is not used



# Methodologies & Standards 4.4 – If specific enterprise architecture tools are adopted, please indicate which ones?

There is a diverse range of architecture tools in Europe, with LeanIX emerging as the most widely used tool due to its progress and adoption.



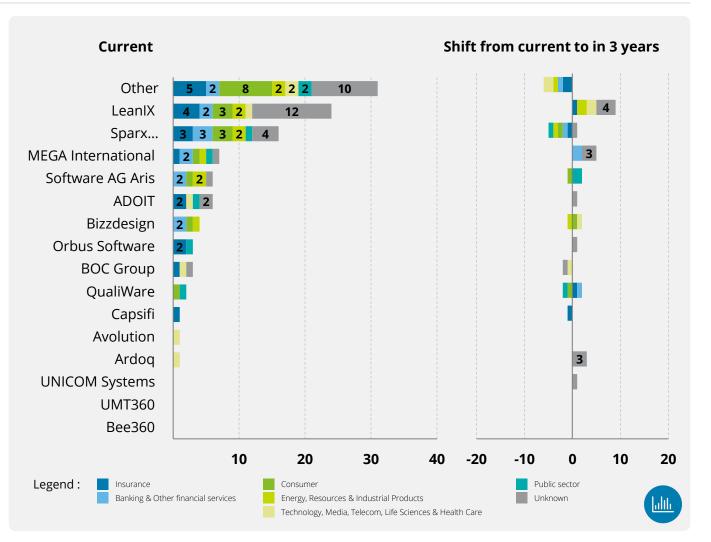
LeanIX is the most used EA Tool, having surpassed both legacy and newer tools

The application landscape of architecture tools in Europe is dominated by LeanIX, with a usage percentage of 27%. Sparx remains as one of the leaders in the second place, with a significant usage percentage of 18%.

The main criteria for choosing these tools remain:

- the scope of use of the tool
- the completeness of the tool for architectural uses
- ease of use
- the cost of licenses and the possibility of wide distribution of the tool beyond the population of architects

Usage for both LeanIX and Mega in the coming years is expected to grow, while Sparx is forecasted to lose popularity.



#### 4 Methodologies & Standards

## 4.5 – What are the methodologies used by IT projects to which Enterprise Architecture contributes?

# Both in the current and future situations, a coexistence of Agile or Waterfall projects is expected, depending on the specific case.

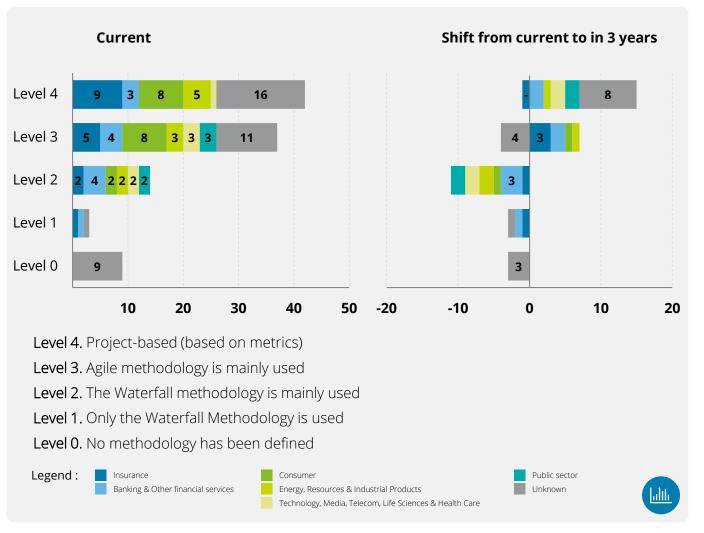


The waterfall and agile cohabitation persists and architects will have to adapt to use both methodologies in projects.

Architects will have to continue to practice the 2 methodologies depending on the project and to become versatile.

They must also integrate this constraint to ensure that the overall vision of parallel projects is consistent over time, regardless of the methodology, and that the decisions that will be made can be easily carried over from one project to another, even if they do not follow the same design and development cycle.

Pure waterfall projects will be almost disappearing in the next few years.



# Methodologies & Standards 4.6 – If the Agile methodology is used, how is Enterprise Architecture integrated into an agile approach?

#### Architects are being integrated into Agile teams, and this transitional situation is expected to continue in the future.

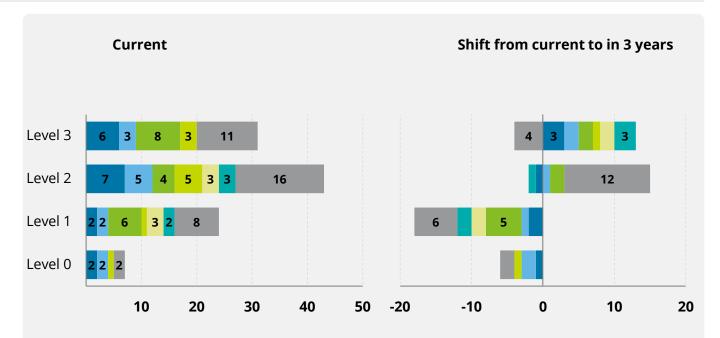


In three years, all architects will be fully or partially integrated into Agile teams.

There is a clear intent of integration of architecture into Agile teams, where nearly 54% of architects report partial integration.

For them, this reflects not only an ambition to keep the overall vision and to delegate decisions locally in order to free up time, but also a need to remain close to the teams in order to support them when necessary in the choice of architecture

For this strategy to work, architecture governance must be consolidated and architecture orientations strengthened through principles, patterns and accelerators that it disseminates through the various architecture "guilds".



Level 3. Architects are part of the Agile team

Level 2. There is a partial integration of Enterprise Architecture into the Agile team Level 1. Architects work without regard to the project's Agile methodology Level 0. There are no Agile projects in the company



## 4.7 – Is Green IT part of the enterprise architecture framework?

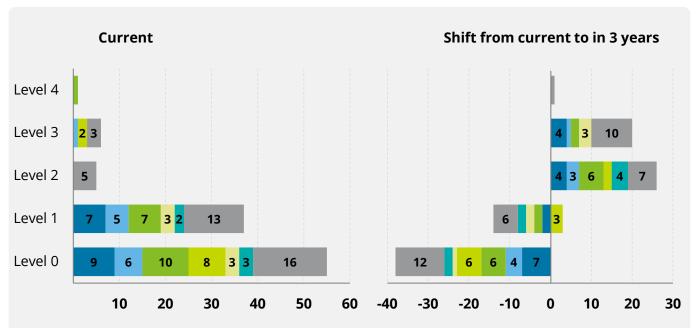
#### Architecture plays a key role in achieving Green IT objectives and this alignment is expected to continue growing.



The integration of Green IT into the methodological framework and the addition of Green KPIs is a strong trend linked to the current context

For nearly 53% of companies, GreenIT will be part of the methodological framework of architecture in 3 years.

The integration of ESG considerations is still nascent, requiring companies to act swiftly. Addressing this issue goes beyond simply incorporating ESG guidance; companies must also prepare for evolving local and EU regulatory requirements in the coming years.



Level 4. The specific role(s) of Green IT Architecture is (are) defined
Level 3. Green IT KPIs are included in the architecture monitoring
Level 2. Green IT is part of the methodological framework of Enterprise Architecture
Level 1. Some Green IT considerations are integrated into Enterprise Architecture principles
Level 0. Green IT is not taken into account



#### 4. Methodologies & Standards

#### 4.8 – How does security fit into the framework of enterprise architecture?

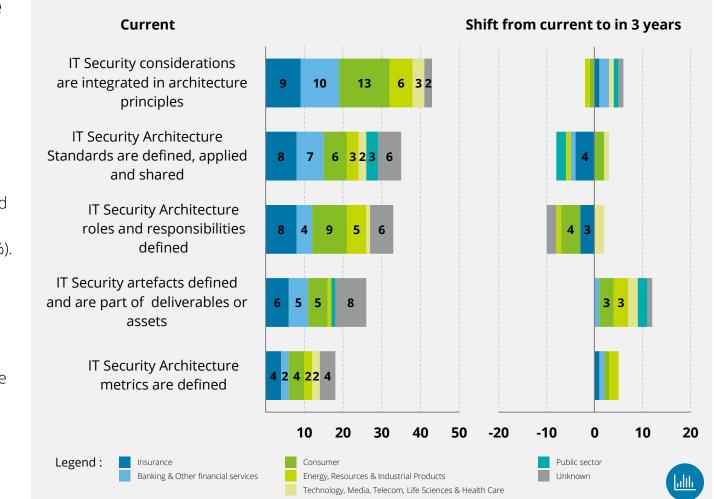
#### Security integration within the architecture remains underdeveloped. Closer collaboration between CISO teams and architects is crucial to address this.



Although security is fairly integrated into the architecture principles, collaboration with CISO teams could be progressed.

At 46% already, security principles are globally defined, used, and shared, but security architecture standards and artifacts are still insufficiently integrated into architecture practices (less than 40%).

Collaboration between architects and security teams must be strengthened to better integrate security by design natively into projects. This would help to operationalize all security elements and best practices, all in order to reduce the company's exposure to cyber attacks.



## ARCHITECTURE ASSETS

Creating, managing and measuring the quality of assets developed by the architecture function



# 5. Architecture Assets 5.1 – What are the main architecture assets available?

## There is a primary focus on defining the application architecture



Organisations are invested in EA assets that help to define their application landscape

Including uptake of 94% for application maps, 70% for application catalogues and 60% for application roadmaps



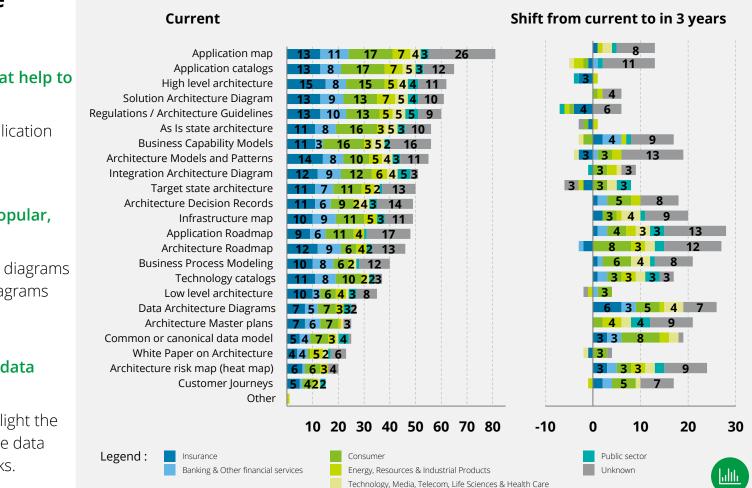
Whilst high-level views remain the most popular, low-level assets are still prominent

Evidenced by the increasing usage of solution architecture diagrams (projected to surpass 55%) and integration architecture diagrams (projected to exceed 50%).



### There is a growing interest in defining the data architecture and highlighting risks

Significant uptake in heat maps and data architecture highlight the importance of data-driven decision-making, comprehensive data management and the need to manage enterprise-level risks.



## 5.2 – What are the design patterns or practices incorporated into enterprise architecture?

Organisations are embracing cloud-native technologies, automation, and emerging technologies, whilst also adopting strategic practices like DDD to drive digital transformation and agility.

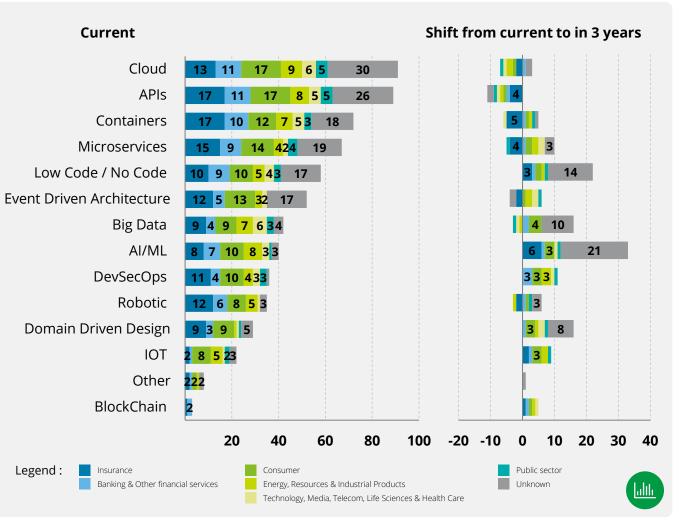


Cloud and APIs Remain Foundational, with adoption rates exceeding 85%, currently, highlighting their crucial role in enabling digital transformation, agility, and scalability.

Technologies like AI/ML, Big Data, and Low Code/No Code are steadily gaining traction, with projected growth rates ranging from 12% to 30%, indicating a growing interest in their potential

DDD, while not as widespread, shows a notable projected increase of 15%, suggesting a strategic focus on building flexible, scalable, and event-driven systems.

**DevSecOps incorporation will grow, with projected increases of 10%** in the next 3 years, reflecting the increasing emphasis on automation, security, and streamlined software development lifecycles.



## 5.3 – How is enterprise architecture documentation and knowledge managed?

The trend towards structured approaches, standardised templates, and KM tools reflects a growing commitment to capturing, sharing, and leveraging EA knowledge to drive better decision-making and improve outcomes.



76% of clients predict that in the next 3 years their knowledge will be documented, based on standard templates and stored in Knowledge Management tool for reuse/sharing.

The growing adoption of standardised templates and Knowledge Management tools for managing EA knowledge, suggests organisations are recognizing the importance of consistency, reusability, and efficient knowledge sharing in their EA practices.

The projected **increase of 25%** in the most mature level (Level 4), which incorporates feedback mechanisms, indicates **a growing emphasis on continuous improvement in EA knowledge management.** Organisations are increasingly seeking to leverage feedback to ensure their EA knowledge base remains relevant, accurate, and aligned with evolving business needs.



Level 4. Documentation is produced, template-based and stored in a tool KM for reuse/sharing and receiving feedback for continuous improvement

**Level 3.** Documentation is produced, template-based and managed in a KM tool, to be reused/shared

Level 2. Documentation is produced, template-based and storage is not Properly structured

Level 1. Architecture documentation is produced, but not saved/shared

Level 0. Architecture documentation is very scarce / limited



#### 5.4 – What are the mechanisms for measuring the quality of documentation?

Organisations are recognizing that highquality documentation result in effective knowledge sharing, collaboration, and organisational efficiency.

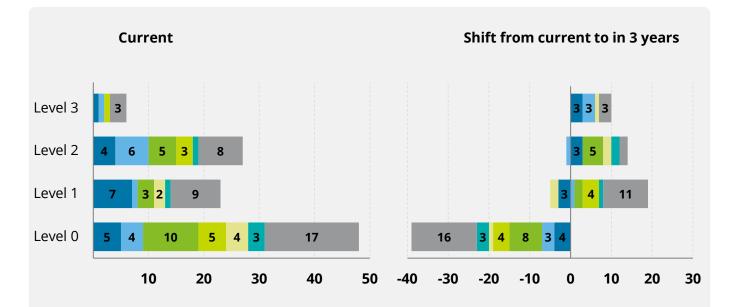


There is a clear trend towards more robust documentation quality measurement practices, illustrated by a 37% decrease in the number of clients with no quality control mechanisms

Over 90% of clients expect to have documentation quality standards defined in the next three years however only **15% of respondents aim for the highest maturity level** response which includes the definition of validation process and metrics.

Organisations may deprioritise defining documentation quality metrics due to perceived complexity, resource constraints, or a focus on establishing foundational quality practices first. However, neglecting metrics-driven measurement can hinder their ability to continuously improve documentation quality.

This highlights a continued need for organisations to prioritise and invest in establishing formal mechanisms for measuring and improving documentation quality.



Level 3. Quality standards for documentation, validation process, and metrics are defined
Level 2. Documentation quality standards and validation process are defined
Level 1. Documentation quality standards are defined
Level 0. No quality control mechanism



## 5.5 – Is there a roadmap and are the transition architectures defined and documented?

In an environment constrained by budget and the search for profitability, the roadmap must be able to convey value messages through value increments.



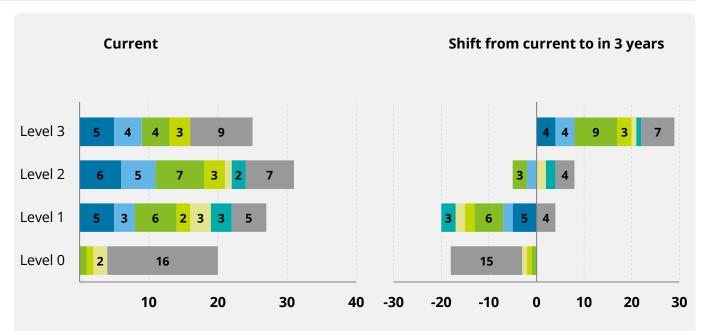
Over 85% of clients are expecting increased adoption of comprehensive roadmap and transition architecture documentation in the next 3 years.

This signifies a growing understanding of the importance of structured planning and execution in EA initiatives.

### Furthermore, over 50% aim for "Roadmaps with current and target architecture with value-added transition steps",

highlighting a strategic emphasis on detailed transition planning. This suggests a move towards not just defining the destination but meticulously planning the journey, considering value creation at each stage of the EA transformation.

Less than 14% expect to still be at the 2 lowest levels of maturity, indicating a shift from ad-hoc EA approaches to more structured, value-driven initiatives.



Level 3. Architecture roadmap, target and defined value-added transition steps

Level 2. Existing architecture roadmap and target

Level 1. List of initiatives

Level 0. Undefined

## 5.6 – Is there a defined business case for each initiative in which Enterprise Architecture is involved?

The increasing focus on Business Cases for EA initiatives, with a projected emphasis on monitoring and strategic decision-making, signalling a future where EA plays a more central and value-driven role.



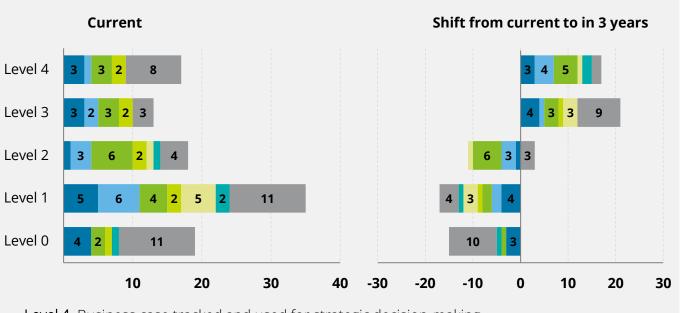
Within three years, 68% of clients anticipate actively monitoring business cases, with half aiming to leverage them for strategic decisionmaking.

"Banking and other Financial Services" show a strong inclination towards strategic use with quintupled responses at Level 4 maturity, while the ER&I industry maintains relatively consistent numbers across most levels, **with over 40% still below level 2 maturity**, implying a potentially slower adoption.



Despite the positive trajectory, over 30% of responses still fall under the less mature levels (level 0, 1 and 2).

This highlights a continued opportunity for organisations to improve their Business Case practices for EA, ensuring greater consistency, structure, and strategic alignment.



Level 4. Business case tracked and used for strategic decision-making

- Level 3. Business cases followed up during execution
- Level 2. Business case done, but not tracked during execution
- Level 1. Business case made only for certain architecture-specific initiatives

Level 0. Business case not defined



## 5 Architecture Assets 5.7 – Are reference patterns and models defined and documented?

## By leveraging the positive trends, architects can transform their EA function from reactive to strategic



Currently, over 55% of clients have a nonstandardised or simplistically formalised approach to reference models and patterns.

Immature EA governance hinders strategic decision-making and diminishes EA value. It creates inconsistencies in solutions, outdated models, and poor integration with business processes.

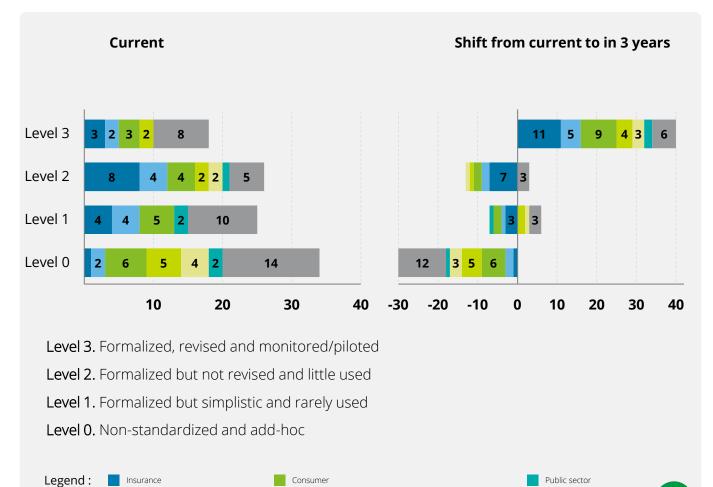


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Over 70% of clients aim for high-quality formalisation of reference models and patterns, with over 55% seeking reviewed and governed models.

This indicates the importance of a mature Enterprise Architecture function and presents significant opportunity to drive improvements in how Enterprise Architecture is managed and leveraged.

Consumer and Insurance industry clients show the most significant increase in "Formalised, reviewed and governed" category with quadrupled numbers in the next three years. Some industries, like Energy, Resources & Industrial Products, still show a projected reliance on ad-hoc methods in 3 years.



Energy, Resources & Industrial Products

Technology, Media, Telecom, Life Sciences & Health Care

Banking & Other financial services

Unknown

## **AUTHORS**

#### Authors **Deloitte countries teams**



France



**Sebastien Charette** Lead Author scharette@deloitte.fr



Simone Velonà Senior Manager sivelona@deloitte.fr



**Cedric Kaptoum fom** Manager ckaptoumfom@deloitte.fr



**Netherlands** 



Anne op de Haar Manager aopdehaare@deloitte.nl



**Kamperman Stella** Staff skamperman@deloitte.nl











Poland

Director

Maciej Zwirski



Francisco José García García Senior Specialist Lead agarcia@deloitte.es

jhigueras@deloitte.es

César Colado Rodríguez

ccoladorodriguez@deloitte.es

Jesus Manuel Higueras Geijo

Technology Strategy Partner

#### Switzerland

**Oleg Torshin** 

Senior Manager

Spain







**Ryan Brossy** Senior consultant rbrossy@deloitte.ch



Austria



**Bernhard Göbl** Partner bgoebl@deloitte.at



**Daniel Seli** Manager dseli@deloitte.at



**Hauptner Markus** mhauptner@deloitte.at





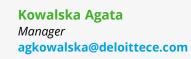


**Claudiu-Adrian Braha** Senior cbraha@deloittece.com



Ostrowski Krzysztof Senior Manager kostrowski@deloittece.com

mzwirski@deloittece.com





# Authors Deloitte countries teams

