



# How mature is your API strategy?



## Executive Summary

APIs have always been there in one form or another, but before the year 2000, there was no standard way of designing or using an API. And then came the RESTful approach, which changed the whole integration space for good. Since then, we have seen many improvements to the API ecosystem. It is no wonder that the complexity has increased manyfold.

A good API strategy should have the right mix of technical and non-technical aspects. The API strategy cannot exist in a silo, it must be aligned to and co-exist with many other enterprise-wide considerations.

Assessing the maturity of a techno-business strategy is not an easy job. It requires a clear understanding of both the technology landscape and the business context. Nagarro has designed a reference model, from the ground-up, called **Nagarro's API Strategy Maturity Model**, that puts all these perspectives in a relative context for an easy assessment of the maturity of any API strategy. This model is accompanied by an Excel based DIY assessment tool that understands the maturity model and allows you to input your business context in it and specify the strategic decisions taken. It instantly renders an indicative assessment of the maturity of your API strategy.

**Watch this 30min #bitesize webinar on the complete API landscape and how Nagarro's API Strategy Maturity Model unites it in its 5-level maturity matrix at:**

<https://www.nagarro.com/api-strategy-maturity-webinar-watch-recording>

From Remote Procedure Calls (RPCs) in the 1970s to intelligent APIs in 2021, we have seen many changes in the way we design and use these APIs. One thing that never changed during all these years is that APIs connect two or more systems, either in the context of a workflow or just for exchanging some data between independent systems. That said, one thing that has changed is how we see the APIs now.

Post web and mobile era, APIs are becoming the new face of many business offerings. With smart devices, sensors, and IoT, 'things' are the latest addition to the list of API end-users. Utilizing these two together, the APIs and Things, businesses can now tap into many new possibilities, generating something called Business Moments. Gartner coined this term to refer to those innovations that have become possible purely because of how new connections are now possible among people, businesses, and things. To generate business moments and make the most out of them, we need to have reliable APIs. The ability to generate unique and successful business moments with APIs in the background is the apex of any API Strategy.

**A close scan of the concepts that relate to APIs in any which way can give us a never-ending list of buzzwords. A quick categorization of these buzz words in three categories gives us:**

**A. Tooling and Platforming:**

API Dev Tools, API Dev SDKs, API DX, API Developer Portal, Auto-generated documentation, API Standards & Style guides, API Instrumentation, API Monitoring, SOA, RESTFUL APIs, Event-Driven APIs, Micro-services, API Maturity Measurement, API Lifecycle Management, API Sandbox, API Governance, API IAM, API Ratings, API Sunset Policies, API Versioning, API SLAs, Mobile Experience.

**B. Alignment & Usefulness:**

API Re-use, API-as-a-Product, API UX, API Culture, API Discovery, API Community Portal/Marketplace, API Service Level Objectives (SLOs), B2B Integration Portals, Enterprise/Partner Alliances, Multi-Channel Aware APIs, Compliance Aware APIs, Business Moments, API Licensing Models, API Monetization, API Economy, Partner Integrations Data Standardization.

**C. Smarter at Scale, Evolutionary:**

API-First, Self-Governing APIs, Democratized Trust, Automated API access management, API Security, Automated Backward compatibility, API Telemetry, API Live Close loop Analytics, API Gateway, Micro-Gateways, Hybrid Integration Platform (HIP), API-Centric SaaS, Elastic Backend, Continuous Delivery, NoOps, Serverless Architecture, Service Mesh, IoT/ Smart dust APIs, Data rivers API framework, Self-Integrating APIs, Affective Computing, Ambient Interfaces, Digital Twins, Quantum AI/ML.

**What should be the proper focus for the API strategy?**

These lists seem large enough, but they are still not exhaustive. These concepts constitute the landscape of the new API world. Taking a closer look, these concepts are not just technical; Things like policies, culture, and governance are also part of this. With so many directions that this landscape covers, an important question is: What should be the proper focus for the API strategy?

API Strategy needs to have a triangular focus: **Technology, Business, and Evolution.**

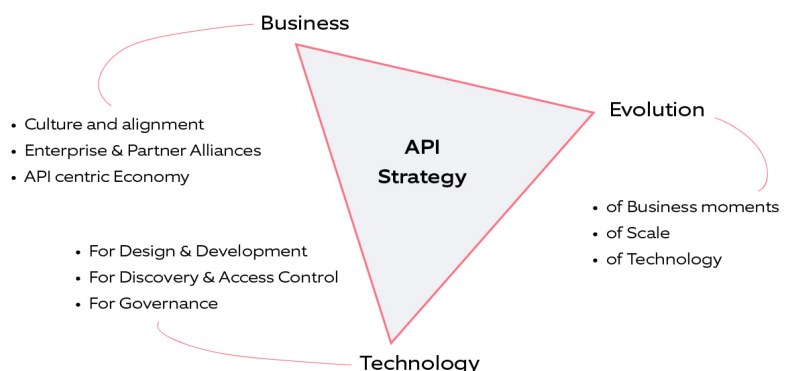


Figure 1: The triangular focus of API strategy

The focus of the **technology angle** spreads from design & development to continuous delivery, API discovery, access control, gateways, portals, and several other infrastructural elements and lifecycle management, monitoring, SLAs, etc., for the sake of the governance.

The **business angle** focuses on enabling an API-first culture and either gaining or providing leadership support to this culture. Adopting APIs within the enterprise first and then developing partner alliances using these APIs next. The goal here is to achieve the alignment of the business and the culture so that the business economy either revolves around APIs or gets the full support from them.

**Evolution**, the third angle, is equally essential, especially in the development of Business Moments. The evolved business moments cause the most value generation from tech investments, cultural changes, and partner alliances. Evolution in changing scalability needs of the business and the growth of the technology requires consideration here.

### So, where does this triangular-focused API strategy fit in the enterprise?

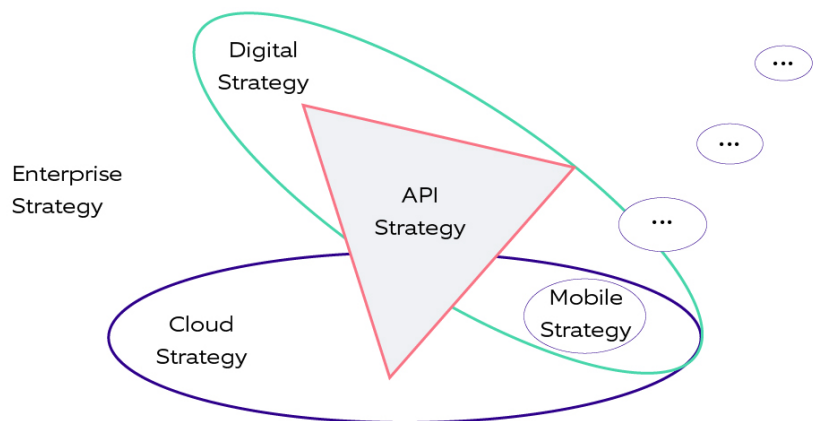


Figure 2: API strategy vis-à-vis other strategies

Taking into consideration:

- The vast landscape an API strategy touches upon,
- Where all it makes the impact, and
- The things it gets impacted from

API strategy seems to fit right in the middle of the digital strategy, comfortably sitting on top of the cloud strategy. Together with many other considerations, it forms an integral part of the overall enterprise strategy.

Defining an API strategy is generally a gradual process, and many organizations do not find it difficult to determine the initial runway for it. Typically, the immediate business needs dictate the initial shape, and subsequently, evolutions to the strategy happen more reactively than proactively. At one point, there is no reference point left to compare with and identify where the API program is heading.

The API landscape is vast, with more than 60 concepts and considerations listed above, and those are still not exhaustive. Generally, organizations are already using many of these concepts at various levels with or without a defined strategy. However, seeing this panorama makes it challenging to find out if an organization is doing enough, or if they are missing on anything, or could have done things differently.

In this context, **Nagarro's API Strategy Maturity Model**, helps in identifying the maturity of any given API strategy or program. To assess the maturity of the API strategy, we need to evaluate the maturity of the API landscape elements related to tooling and platforming for the Technology angle, alignment and usefulness for the Business angle, and maturity of the concepts in category C above towards the Evolution angle. Yet assessing the individual maturity of each of these concepts will not solely do the trick because of the many fine-grained mutual relationships and dependencies among them, both horizontally and vertically. There will be situations where say, concept X cannot be used without having concept Y present first, which in turn only works with concept Z in some specific cases. As you can see, this is complex.

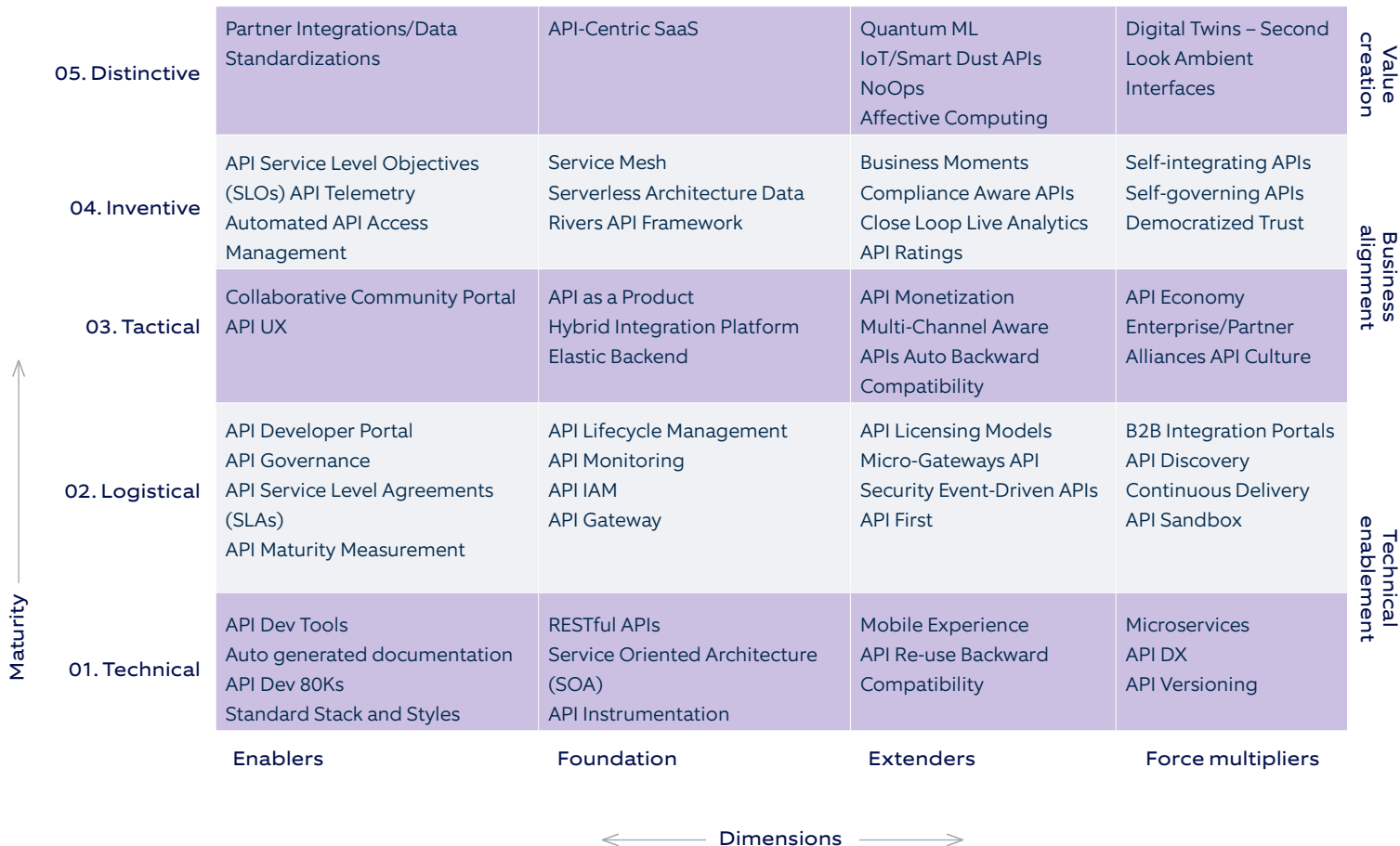


Figure 3: Nagarro's API Strategy Maturity Model

It is here where what we call a dimension comes in handy. Dimensions focus purely on the mutual dependencies and the relationships of these concepts. We have defined four dimensions:

- **Enablers**, primarily the environmental considerations, policies, business forces, or practices that enable achieving something.
- **Foundation**, elements that are mainly technical or infrastructural in nature.
- **Extenders**, together with Enablers and Foundational elements these are the ones that set value generation in motion.
- **Force Multipliers**, when invested in, maximizes the potential of the space wherever they are applied.

Grouping these buzzwords in context of these dimensions, gives us our five levels of maturity of the API strategy:

- **Level 1: Technical**- It's mostly about technical maturity. Practices, policies, and processes still immature.
- **Level 2: Logistical**- Complete ecosystem coming together with the required infrastructure in place. Policies and processes are getting traction; however, a strong business driver is still missing.
- **Level 3: Tactical**- Business needs have started driving the API Program. Partner alliances have started coming together.
- **Level 4: Inventive**- API program is getting all the required focus. The organization is getting direct ROI, and most importantly, API-based business offerings started appearing.
- **Level 5: Distinctive**- The key here is that a unique value proposition is generating that is supported primarily by the strategic API program.

Accompanies this maturity model is an automated DIY assessment tool. This tool gives several choices and lets you define various facts and practices in the context of your organization.

These are simple drop-down values to choose from. Since the landscape is huge, so the questions list as well. To simplify the selection process, a predefined set of seven business situations are provided.

Considerations	Place in your API Strategy	
	Auto-Mapped Choices	My Choices
<b>A: Tooling and Platforming</b>		
<b>API Dev Tools</b> <small>These tools make it easy for developers and managers to coordinate, track, and update API dev work</small>	Started using	<input type="text"/>
<b>API Dev SDKs</b> <small>This covers the pre-packaged snippets for accelerated use of APIs in other applications</small>	Not considering/using	<input type="text"/>
<b>API DX</b> <small>The developer focused features for API building, like getting started guide, sample requests, human-readable descriptions, searchability, etc.</small>	Started using	<input type="text"/>
<b>API Developer Portal</b> <small>An interface between a set of APIs and their various stakeholders, where API documentation can also be published</small>	Not considering/using	<input type="text"/>
<b>Auto generated documentation</b> <small>This feature makes maintaining API docs easier as they proliferate</small>	Considering to use	<input type="text"/>
<b>Standard Stack and Styles</b> <small>The best practices and considerations with respect to designing and setting APIs consistently</small>	Started using	<input type="text"/>
<b>API Instrumentation</b> <small>This provides for an in-depth tracing of different aspects of API usage for deeper insights</small>	Considering to use	<input type="text"/>

Figure 4: Agile adoption process

**Selecting a business situation that is most relevant for your organization, automatically fills the responses for all the questions, and then to further fine-tune, individual answers can be modified.**

For each question, six graded choices are available to be able to define an accurate context.

As choices are made an indicative maturity level, that this tool has assessed for the given situation, is shown instantly.

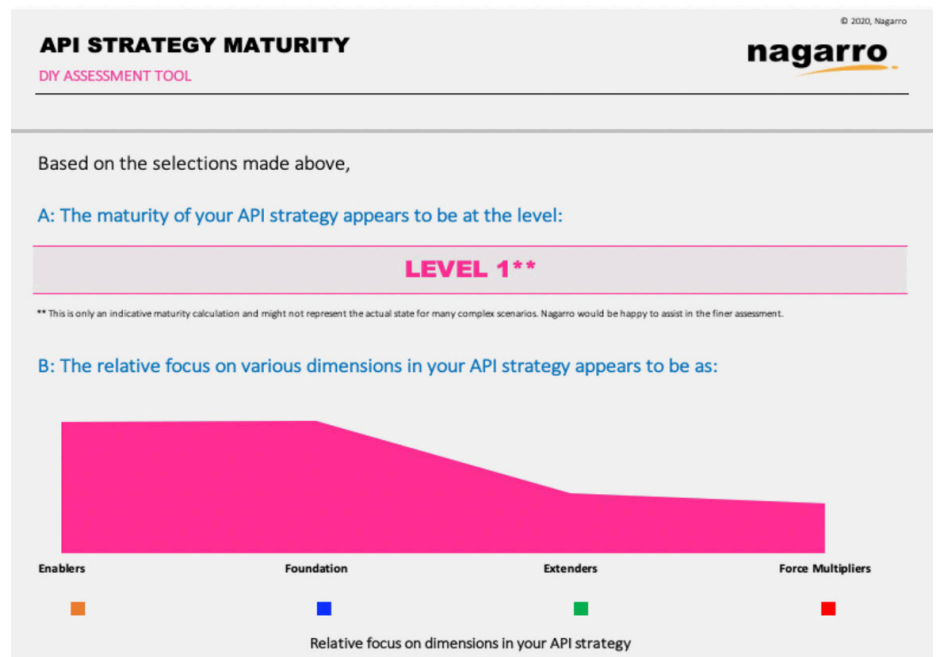


Figure 5: DIY assessment tool: choices

This automated assessment is good to get a high-level sense of the maturity of your API strategy. This assessment is also a good starting point for establishing a roadmap towards Level 5 maturity.

In this context, Nagarro can help by gathering the current state, understanding the future vision, identifying gaps, and suggesting an optimized roadmap for the desired target state.

## About the Author



With over a decade of work experience at Nagarro, Vikas' responsibility lies in continuous inflow of right technology at various stages of people, processes and projects, contributing to stable and sustainable business growth across geographies. He leads technology consulting activities in the US, anchors several global technology initiatives including LSD by Nagarro and Architects-on-tour Workshops. Being a founding member of the many centres of excellence – groups that are responsible for hatching disruptive innovation ideas in real-life business scenarios – infuse his technical expertise in enterprise wide decision makings.

Vikas' more than two decades of all-round IT experience includes, designing software solutions across domains and technologies, end-to-end product development, and conceptualizing & setting up many centers of excellence. As a hands-on leader, he believes in raising the bar with every assignment he takes up. Vikas holds a Masters in Computer Application and in his leisure time, he seeks pleasure in coding open source frameworks & libraries, write technology narratives and play tennis.

### **Vikas Burman**

Tech Consulting & Governance  
Chief Technology Officer

## About Nagarro

In a changing and evolving world, challenges are ever more unique and complex. Nagarro helps to transform, adapt, and build new ways into the future through a forward thinking, agile and CARING mindset. We excel at digital product engineering and deliver on our promise of thinking breakthroughs. Today, we are 10,000 experts across 26 countries, forming a Nation of Nagarrians, ready to help our customers succeed..

Further information is available at [www.nagarro.com](http://www.nagarro.com).