Andrey Nikonov
Partner with PGP Tax Consultancy

R&D Principles in Identifying Core Attributes in Innovation

Last Thursday, we conducted a webinar discussing key principles in Research and Development (R&D) identification for the purpose of the 0% Corporate Tax rate. Today, I am sharing an extract from that session, focusing specifically on the core attributes defining R&D activities, along with case examples that illustrate the practical application of these principles. The following sections provide an overview of these concepts and how they have been applied in real-world scenarios to distinguish genuine R&D initiatives from routine business processes.

Slide 1. Nexus Ratio and Qualifying IP Income

Nexus Ratio Calculation

$$Qualifying\ Income = \frac{Qualifying\ Expenditures + Uplift\ Expenditures}{Overall\ Expenditures} \times Overall\ Income$$

"Qualifying Expenditures" means 'expenditures incurred to **fund R&D** activities', which meet localization requirements.

"Overall Expenditures" means total expenditures incurred to **fund R&D** activities, ... directly connected with the creation, invention or significant development of the Qualifying Intellectual Property, including acquisition costs of the Qualifying Intellectual Property".

FTA: '... all of these costs arise out of activities undertaken to advance the understanding of scientific relations or technologies, address known scientific or technological obstacles, or otherwise increase knowledge or develop new applications'.

Expenses which do not meet R&D criteria do not affect nexus ratio

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The above slide explains the importance of the Nexus Ratio in determining Qualifying Income under the 0% Corporate Tax rate. The Nexus Ratio calculation is essential for distinguishing income derived from Qualifying Intellectual Property (IP) by including only the expenditures related to R&D activities. If a software development project does not qualify as R&D, it results in a Nexus Ratio of zero for Qualifying Income. This ensures that only income

directly tied to true R&D efforts is eligible for the favorable tax treatment, reflecting the strict standards for qualifying R&D activities.

Slide 2. Core Attributes Defining R&D

Core R&D Criteria for Software
Scientific/Technological Novelty

Exist	Does Not Exist
• Must aim to resolve technological **uncertainties** • Should **advance knowledge** in computer science or software engineering	• Can be **readily apparent** to someone familiar with existing software knowledge base

The second slide expands on the scientific or technological advancement criterion, presenting scenarios where companies have successfully demonstrated advancement (on the left). Here, the emphasis lies on developing new methodologies, technologies, or knowledge that were previously unavailable. Such activities must aim to resolve existing technical uncertainties, a requirement critical to R&D categorization.

Slide 3. Uncertainty as Essential Attribute of R&D

Uncertain	Certain
• **Technical feasibility** cannot be guaranteed • **Resources/time** needed for solution unclear • **Success of approach** not predetermined	• Implementation follows **established design patterns** • Solution can be achieved using **documented APIs** • **Standard frameworks** provide ready solutions • **Clear precedents exist** in similar applications • Development team has **prior experience** implementing similar solutions

In this slide, we explore the role of uncertainty as a core attribute in qualifying activities as R&D. For an activity to be recognized as R&D, it must involve

significant technical or scientific uncertainty that cannot be resolved through standard approaches or existing knowledge. This uncertainty often arises from complex challenges that require innovative solutions and experimentation.

The slide illustrates examples of uncertainty in R&D, emphasizing that qualifying projects must confront unpredictable outcomes that demand rigorous testing and unique methodologies.

Slide 4. Case Studies in Web Development

R&D presence. Examples π^g | Tax Consultancy

Web Development. Cases Resolved

Qualifies	Does Not Qualify
• Developing **new** JavaScript frameworks to **solve specific technical limitations**	• Building websites using **existing** frameworks
• Creating **novel approaches** to server-side rendering	• Implementing **standard** REST APIs
• **Innovative** solutions for web application state management	• **Regular** frontend/backend integration
• **New** methodologies for cross-platform compatibility	• **Standard** responsive design implementation

Qualifying R&D Activities in Web Development illustrated with the following software products:

1. ***Developing New JavaScript Frameworks to Solve Specific Technical Limitations*** aims at overcoming unique technical challenges. By designing new frameworks, developers introduce novel solutions that advance the web development field beyond standard practices, meeting the innovation and uncertainty requirements for R&D qualification.

2. ***Creating Novel Approaches to Server-Side Rendering*** comprises developing innovative methods for server-side rendering goes beyond routine coding and addresses specific limitations in rendering speed and efficiency. These unique approaches require in-depth experimentation and technical problem-solving, qualifying them as R&D activities due to their advancement in web development.

3. ***Innovative Solutions for Web Application State Management*** involves implementing new state management solutions introduces novel ways to manage application states dynamically and efficiently. Since this approach solves a complex problem by enhancing the functionality and

interactivity of web applications, it qualifies as R&D, particularly when standard methods are inadequate.

4. ***New Methodologies for Cross-Platform Compatibility*** engages developing methodologies that improve cross-platform compatibility allows applications to function consistently across different devices and operating systems. These methods, particularly when not previously documented or available, qualify as R&D by advancing technical capabilities in application development.

Non-Qualifying R&D Activities in Web Development is illustrated in the slide above with:

1. ***Building Websites Using Existing Frameworks*** involves using pre-existing frameworks to create websites, which lacks novelty and innovation. As it relies on readily available tools without developing new solutions, it does not qualify as R&D.

2. ***Implementing Standard REST APIs*** engages standard REST API integration is a routine application of documented protocols that does not require unique problem-solving or innovation, making it ineligible for R&D classification.

3. ***Regular Frontend/Backend Integration*** is also circumscribed with standard practices for connecting frontend and backend components, without introducing new methodologies or solving specific technical issues, are routine activities that do not meet the R&D criteria.

4. **Standard Responsive Design Implementation** is limited to using established tools and methods to implement responsive design is common practice and does not advance the field. As it lacks technological novelty, it does not qualify as an R&D activity.

Slide 5. Case Studies in Cloud Computing

R&D presence. Examples (continued)   π^g | Tax Consultancy

Cloud Computing R&D. Cases Resolved

Qualifies	Does Not Qualify
• **New** approaches to container orchestration	• **Standard** cloud deployment
• **Novel** solutions for multi-cloud data consistency	• **Regular** infrastructure setup
• **Innovative** serverless architecture patterns	• Using **existing** cloud services
• **Advanced** cloud security protocols	• **Standard** DevOps practices

In this slide, we examine Cloud Computing activities to clarify which qualify as R&D and which do not. For an activity to be eligible, it must involve genuine innovation aimed at advancing cloud technology, typically through developing new methods, solving unique technical challenges, or creating novel solutions. The slide presents examples of qualifying R&D, such as pioneering serverless architecture patterns and innovative data consistency solutions, contrasted against non-qualifying activities like routine cloud deployment and standard DevOps practices. These distinctions help illustrate the rigorous standards necessary to classify cloud computing activities as R&D.

Non-Qualifying R&D activities in Cloud Computing illustrated in the slide above with:

1. ***Standard Cloud Deployment*** is enclosed by routine cloud deployment using existing infrastructure lacks the innovative element required for R&D. Since it involves applying well-known setups, it does not meet the criteria for R&D classification.

2. ***Regular Infrastructure Setup***, i.e. setting up cloud infrastructure with established configurations. It does not introduce new technical solutions or advancements. As it follows standard procedures, it is not eligible as an R&D activity.

3. ***Using Existing Cloud Services*** includes utilizing pre-existing cloud services for standard applications, and does not involve unique experimentation or problem-solving. This activity lacks the novelty and innovation needed to qualify as R&D.

4. **Standard DevOps Practices** where the developers applied common DevOps methods and practices to manage cloud infrastructure is a routine operation. Without developing new processes or addressing significant technical challenges, it does not qualify as R&D.

In contrast, **Qualifying R&D activities** in Cloud Computing are illustrated in the Slide Above with:

1. Developing unique methodologies for container orchestration to optimize resource allocation and system scalability addresses specific technical challenges. This innovation qualifies as R&D due to its advancement in cloud management techniques.

2. Creating methods to maintain data consistency across multiple cloud environments introduces new solutions to a complex issue in cloud computing. This activity requires significant experimentation and problem-solving, meeting the criteria for R&D.

3. Designing new serverless architecture patterns to enhance performance and scalability involves advancing current cloud capabilities. This work is exploratory and qualifies as R&D by pushing the boundaries of conventional serverless frameworks.

Developing cloud security protocols to address emerging threats and vulnerabilities requires novel approaches and advanced technical knowledge. This qualifies as R&D, as it contributes to the field's ongoing advancement in security.

Slide 6. Case Studies in Mobile Development

Mobile Development R&D. Cases Resolved

Qualifies

- **New** methods for cross-platform code sharing

- **Novel** approaches to mobile power optimization

- **Innovative** mobile security architectures

- **Advanced** mobile UI rendering techniques

Does Not Qualify

- **Standard** app development

- **Regular** API integration

- Using **existing** mobile frameworks

- **Standard** feature implementation

In this slide, we explore Mobile Development activities to distinguish those that qualify as R&D from standard practices that do not. Qualifying R&D in mobile development requires innovative approaches that push technological boundaries, such as developing novel methods for cross-platform code sharing or optimizing mobile power consumption. These projects involve addressing complex technical challenges and often lead to advancements in mobile technology. Conversely, routine tasks like using existing frameworks for app development or standard API integration lack the innovation needed for R&D classification. This slide emphasizes the criteria necessary for an activity to be recognized as R&D within mobile development.

Slide 7. Diagnostic Framework for Evaluating Certainty in R&D

To help you identify the certainty issues

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Certainty Diagnostic Framework

When evaluating Certainty, ask:

1. Has this been done before in a similar context?

2. Are there documented solutions or patterns?

3. Can expertise be readily hired or acquired?

4. Is success predictable with current knowledge?

5. Are the challenges technical or just complex?

Certainty Exists When:
- Clear solution path is visible
- Required tools and methods exist
- Success criteria are well-defined
- Resources and timeline are predictable
- Knowledge is readily available
- Risks are known and manageable

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This slide introduces a diagnostic framework to help companies assess whether their projects genuinely qualify as R&D. The framework provides questions to evaluate novelty, such as whether established solutions exist or if expertise can be easily acquired. This structured approach aids in identifying exploratory projects and aligns them with the qualifying standards for the 0% Corporate Tax rate.

Slide 8. Documentation and Compliance for R&D Activities

Documentation to Evidence R&D attributes

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To support R&D classification, organizations should document:

Technical uncertainties being addressed	New knowledge being sought	Research methodology
Technical challenges encountered	Solutions developed	Knowledge gained
	Project outcomes and their broader applicability	

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This final slide of this snippet addresses the documentation to support R&D claims. Detailed records, including project reports and documentation of technical uncertainties addressed, are crucial for compliance. Proper documentation not only supports regulatory adherence but also solidifies a project's eligibility for the Nexus Ratio, ensuring that only qualifying R&D expenses contribute to the calculation of Qualifying IP Income.

Conclusion

Identifying and substantiating R&D activities is crucial for businesses aiming to qualify for the 0% Corporate Tax rate. By understanding and applying core principles, including Nexus Ratio calculations, companies can confidently classify their R&D initiatives, ensuring alignment with tax benefits and fostering innovation within their industries.

This overview is intended to assist organizations in distinguishing genuine R&D from routine business activities, providing clarity and supporting compliance. However, it is essential to recognize that no example can be directly applied to a specific case without considering its unique context. As the FTA states, 'the examples in the guide:

－ *show how these elements operate in isolation and do not show the possible interactions with other provisions of the Corporate Tax Law that may occur.* ***They do not, and are not intended to, cover the full facts of the hypothetical scenarios used nor all aspects of the Corporate Tax regime, and should not be relied upon for legal or tax advice purposes****; and*

－ *are only meant for providing the readers with general information on the subject matter of this guide. They are exclusively intended to explain the rules related to the subject matter of this guide and do not relate at all to the tax or legal position of any specific juridical or natural persons*'.

Besides, reckon with the information below dealing with the slides above.

Disclaimer

Pursuant to the [MoF's press-release](#) issued on 19 May 2023 "*a number of posts circulating on social media and other platforms that are issued by private parties, contain inaccurate and unreliable interpretations and analyses of Corporate Tax*". The Ministry issued a reminder that official sources of information on Federal Taxes in the UAE are the MoF and FTA only. Therefore, analyses that are not based on official publications by the MoF and FTA, or have not been commissioned by them, are unreliable and may contain misleading interpretations of the law.

See the full press release [here](#).

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