

**Deloitte.**



Reforming R&D incentives:  
Ushering in a New Era for  
Indian Innovation

June 2024

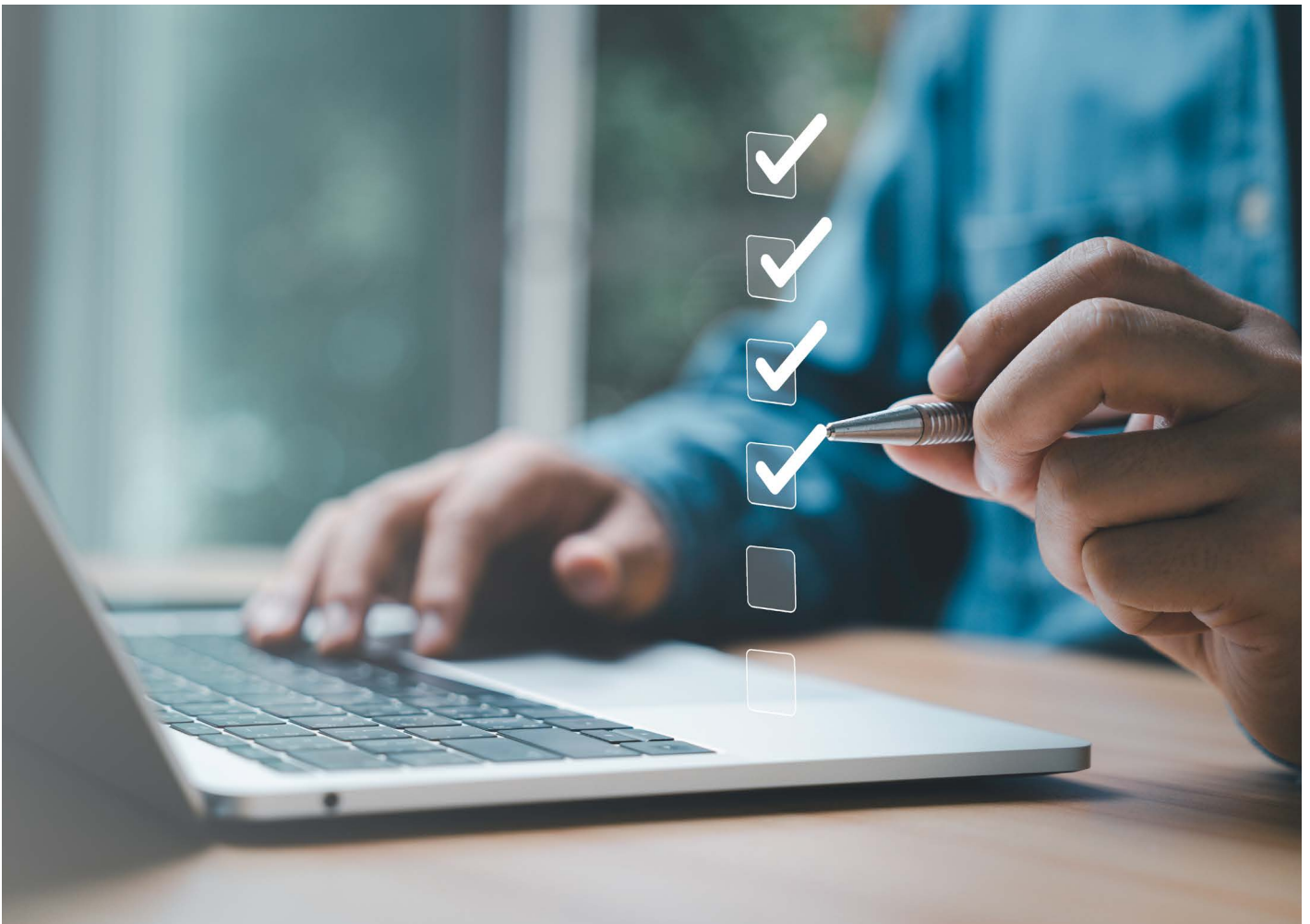


# Table of Content

<b>Background</b>	<b>05</b>
<b>Overview of our recommendations</b>	<b>09</b>
<b>Business models in R&amp;D</b>	<b>11</b>
<b>How to make India a global R&amp;D hub?</b>	<b>15</b>
<b>Regulatory/policy enablement</b>	<b>23</b>







# Background

- a. "Innovation and R&D" was identified as one of the six major pillars in Budget 2021, and several measures were introduced to promote and strengthen India's innovation ecosystem.

The National Research Foundation (NRF) was allocated about INR50,000 crore, to be spent over five years.

The Anusandhan National Research Foundation Act, 2023, states that the NRF will serve as an umbrella body funding research in a range of fields, including science and technology and humanities.

- b. According to the Economic Survey for FY 2022–23, India has emerged as a global powerhouse for Engineering R&D (ER&D) and innovation in recent years and is committed to driving future growth and innovation for global enterprises.

Numerous Global Competency Centres (GCCs) have been incorporated in India in the past six years. GCCs are working on complex R&D functions, using cutting-edge technologies and developing innovative digital products. They are also building the largest or the second-largest ER&D hubs in India. Patent filing has increased drastically. Between 2015 and 2021, over 138,000 patents were filed, with over 85,000 of those pertaining to emerging technologies.

- c. The increase in India's Gross Expenditure on R&D (GERD) from INR 60,196.75 crore in 2010–11 to INR 127,380.96 crore in 2020–21 indicate the government's support of research and innovation through innovations.<sup>1</sup> However, this level of R&D spend is on the lower side compared with developed economies.

<sup>1</sup>Research and Development Statistics at a glance 2022-23, Department of Science & Technology

Incentive	India	US	UK	Singapore	Japan	China	Germany
Percentage of GDP spent towards R&D <sup>2</sup>	0.66%	3.45%	1.71%	1.89%	3.26%	2.40%	3.14%

While most developed countries spend a little over 1.5 percent of their GDP on R&D, in India, it is only 0.66 percent. The Economic Survey for FY 2021–22 highlighted that the number of patents granted in India is still a fraction compared with those granted in China, the US, Japan and Korea. The survey noted that India’s low expenditure on R&D activities, which stood at 0.7 percent of the GDP in 2020, was one of the key reasons for low patents in the country vis-a-vis the US, China, etc.

However, this must also be seen in terms of contribution. The Indian government contributes two-thirds of the spend, compared with other economies where governments contribute only a quarter of the spend and the private sector contributes the remaining.

Now is the right moment for the private sector to step up and support India’s R&D sector. To stimulate this change, the government is likely to undertake various measures to incentivise the much-needed collaboration between the public sector and the private sector.

For example, the Indian Space Policy, 2023 stipulates that the government must focus on promoting advanced R&D in the space sector to sustain and augment the space programme. Non-Governmental Entities (NGEs) should be encouraged to undertake research, innovation and technology development. NGEs could be encouraged by giving tax incentives to players in space research and innovation. Similar initiatives can also be given to various other sectors.

Existing educational/research institutions have established research parks with government aid to promote innovation in India. This has its own limitations and created a gap in terms

of experimentation and innovation. This gap can be bridged by creating an environment of collaboration between industry and academia, which can enable institutions to receive private funding to experiment with ideas and implement that relevant to current requirements. Such collaboration will help retain technocrats in India, thereby reducing reliance on foreign technology and innovations.

In its recent interim budget, the government allocated INR1 lakh crore that will be established with 50-year interest-free loan. The corpus will be used to provide long-term financing or refinancing with long tenors and low or zero interest rates. This will likely encourage the private sector to scale up research and innovation in sunrise domains.

The government is expected to take more such measures in the next few years.

### Foreign Direct Investment (FDI) in the R&D sector

According to a report from the Office of the Principal Scientific Advisor, in 2018, India was the second favoured destination after Israel for R&D investment. India witnessed increased FDI in R&D in 2022, as multinationals sought to increase their technical talent base and diversify innovation activities away from China.

In the first 10 months of 2022, India attracted 225 FDI projects in R&D activities, up by 152 percent compared with 2021 and more than any other full-year period on record, according to the latest figures from FDI Markets. These projects had an estimated US\$14.9 billion of announced capital expenditure (capex), which is equivalent to a third of the global total in 2022 and more than double the capex announced for Canada, the second ranked country.<sup>3</sup>

<sup>2</sup>The World Bank, Open Data

<sup>3</sup>Source: fDi Markets\*2022 data is up to October 31

**Incentives among OECD, EU and BRICS countries**

Based on the data available, broad incentives provided in OECD, EU and BRICS countries are summarised below:

Particulars	Remarks
<b>Nature of incentives offered</b>	22 of 38 OECD countries and 17 of 27 EU countries offer income-based tax support for R&D and innovation. In most cases along with expenditure-based tax incentives such as R&D tax credits. <sup>4</sup>
<b>Rates</b>	Regime rates range from 0 percent to 23.8 percent. Full exemption is available in six countries. On average, income-based tax incentives offer a reduced tax rate of 7.35 percent, implying a <b>65 percent average reduction</b> from statutory tax rate. <sup>5</sup>

At this juncture, attention may be drawn to Vietnam’s economy that has been attracting investments globally from various sectors and countries. Vietnam’s favourable business environment, steady economic growth, improved infrastructure and changes in policies have contributed to its position as a top country for attracting foreign investment. The Vietnamese government encourages R&D through tax exemptions, financial support, reduced tax rates and tax holiday.

Overview of the global practices have been captured in **Annexure 2**.

Furthermore, a comparison of BRICS countries in key innovation indicators has also been captured in **Annexure 3**.



<sup>4</sup>OECD Taxation Working Papers No. 60: Design features of income-based tax incentives for R&D and innovation

<sup>5</sup>OECD Taxation Working Papers No. 60: Design features of income-based tax incentives for R&D and innovation

### Incentives and challenges for the R&D sector

The incentives available for the R&D sector in India and the corresponding tax effect has been mentioned below.

Amount in INR

Particulars	Reference	Deduction on R&D expenses	Patent box regime
Income	A	100	100
R&D expenses	B	25	25
Net profit	$C = A - B$	75	75
Base tax	$D = C * 22\% / D = A * 10\%$	16.5	10
Statutory tax	$E = A * 22\%$	22	22
Tax relief	$F = B * 22\% / B * (22\% - 10\%)$	5.5	12
Reduction in statutory rate by	$G = F / E * 100$	25%	55%

Despite the tax savings available on opting for the aforementioned, not many are opting for these incentives.

One of the reasons could be obtaining approval from the Department of Scientific & Industrial Research (DSIR).

While DSIR approval may not be required for availing income tax incentives, taxpayers still choose to go ahead and obtain the approval from DSIR primarily because companies without such

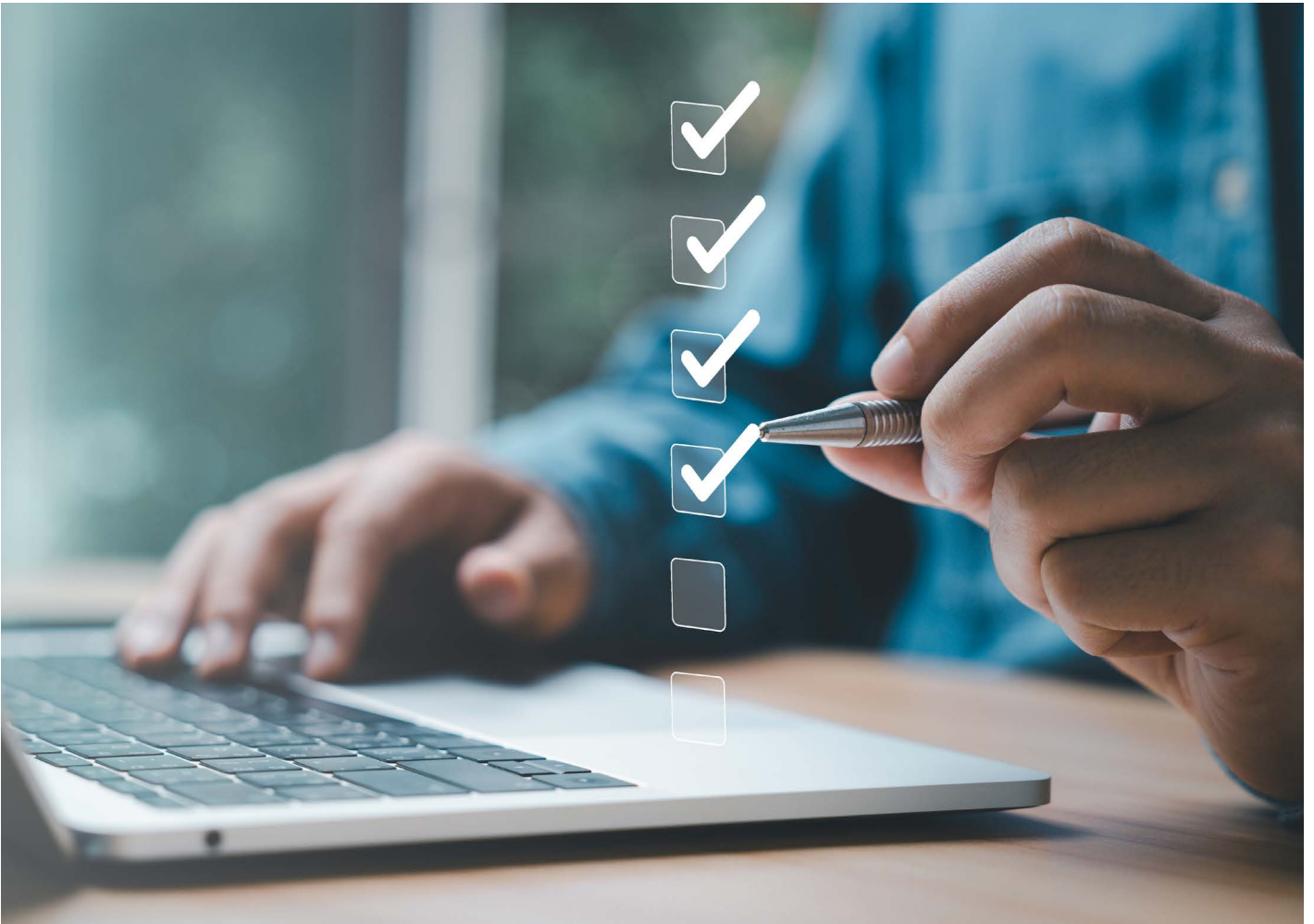
approval cannot avail funding from the Indian government or other bilateral funding programmes.

With respect to the patent box regime, while a lower rate has been prescribed, it has not found many takers in the market due to various challenges.

Details of the tax incentives, along with the pros and cons, have been captured in **Annexure 1**.







# Overview of our recommendations

---

## Business model Recommendations

R&D as a product

### Refinement of the 'patent box' regime

Broadening the scope

- The term 'patentee' to include the subsequent owner (transferee) of the patent and not just the true and first inventor of the invention. Development requirements can be imposed to ensure that acquired Intellectual Property (IP) can no longer benefit from relief unless further developed in line with OECD Base Erosion and Profit Shifting (BEPS) Action Plan 5.
  - Broaden the scope to include other IPs such as know-how, designs and models. May also include patents registered outside India, provided the nexus approach is followed to determine the amount of income that will be eligible for the lower tax rate.
  - Extending the regime to non-resident patent holders registered in India with some checks, such as carrying out substantial development of IP in India. This would be in line with the nexus approach prescribed by OECD for attracting higher revenue.
-

---

## Business model Recommendations

---

### **Allowability of expenses/carrying forward of losses**

- Deduction of related expenses and set-off of losses carried forward to be available against income generated from IP.

### **Enhancing the TP framework for India's R&D centres**

- To position India as a premier global R&D hub, a refined tax framework aligned with the OECD guidelines may be considered.
- 

R&D as a service

### **Setting up R&D hubs**

- Certain specified areas may be identified and demarcated as R&D hubs (similar to the existing SEZs/IFSC – GIFT city).
- Treat the R&D hub as a separate jurisdiction to enable ease of investment flowing into R&D hubs under FDI.
- Impetus to be provided to developers of R&D hubs and R&D units.
- Specific aid and financial subsidies for the construction, modernisation or operation of innovation clusters.
- Special incentives for units creating job opportunities in the R&D hubs (by way of grants/tax deductions/tax holidays).
- Tax and duty exemptions under GST and customs laws for procurement of goods and/or services in hubs
- Tax incidence on income arising to developers of R&D hubs or for the units set up in the R&D hub to be reduced by providing a 10-year tax holiday.

### **Revisiting the safe harbour margins**

- To rationalise Safe Harbour Rules (SHR) margins aligned to industry realities, raise the transaction threshold for SHR's eligibility to include a wider array of R&D activities and introduce industry-specific margin matrices for sectors such as AI, software, automobiles, pharmaceuticals, defence and energy.
- Furthermore, simplifying SHR adoption processes will encourage participation and innovation in India's R&D landscape, making it an attractive hub for contract R&D amid global competition.

### **Budgetary support for R&D capex and operational expenses**

- Grants through budgetary support measures with the objective of achieving specific outcomes in R&D can be considered.
  - A subsidy framework under a national R&D policy, combined with support under state-level policies, would be instrumental in catalysing fresh investments.
- 

Other recommendations

**Introduce arbitration and mediation-type forum:** Implement advanced dispute-resolution mechanisms to provide R&D entities with neutral, expert-led resolution avenues, minimising disruptions and fostering innovation.

**Harmonise TP audits with R&D incentives:** It's critical to align outcomes of TP audits with R&D tax incentives, ensuring that incentives aimed at fostering innovation are not undermined by TP adjustments.

**Streamline APAs for R&D:** Enhance the APA process for R&D transactions to address the uncertainties inherent in R&D and attract more R&D investment to India.

---



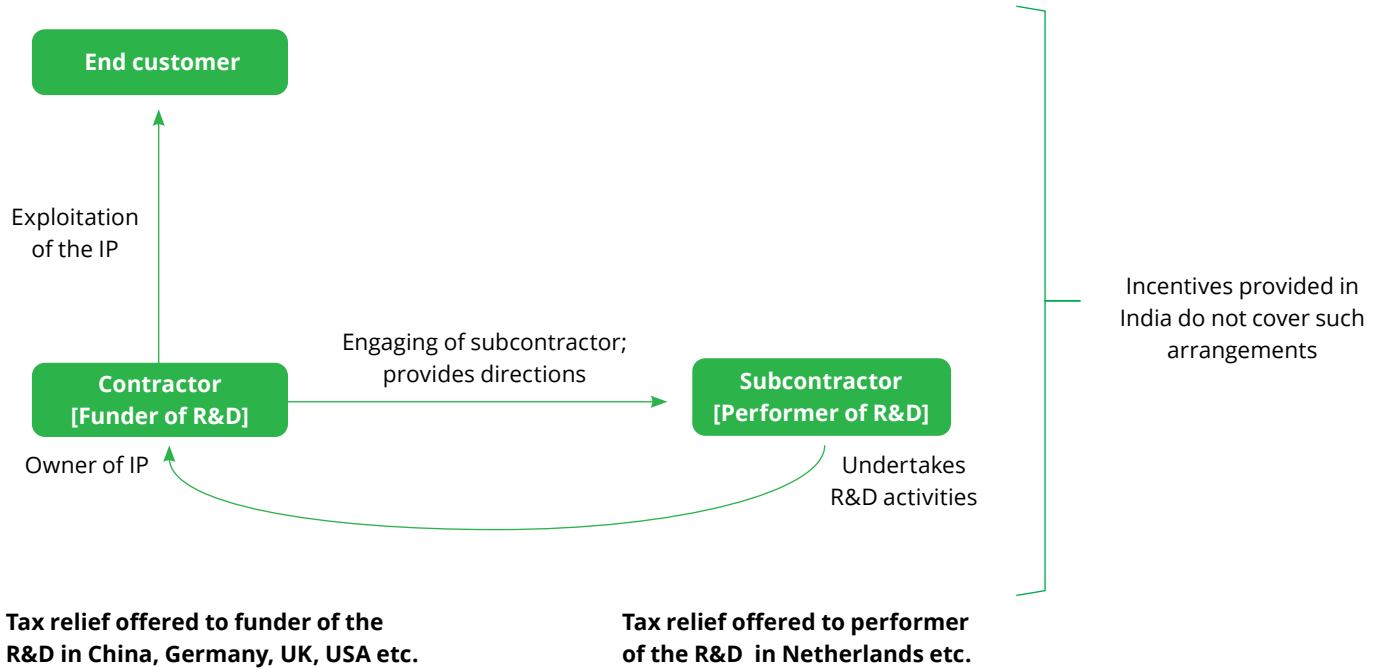
# Business models in R&D

Some popular models in the R&D space are as follows:

## **Contract R&D or subcontracting arrangement**

Contract R&D is currently the most prevalent model in India, wherein contractors perform R&D activity while assuming minimum risk for minimal value addition. The contractors follow the cost-plus model for recognising revenues.

The model and the incentives provided in some countries are mentioned below:



While India does not provide incentives to R&D subcontracting arrangements (apart from income tax incentives provided to existing units set up in a SEZ prior to April 2021, who are

currently enjoying tax holidays for the remaining period), various countries have extended benefits under this model.

Sl. no.	Incentives provided to	Sample countries
1	Funder of the R&D	China, Germany, UK, US, etc. <sup>6</sup>
2	Performer of the R&D	Netherlands <sup>7</sup>

However, with the increase in number of start-ups, the risk appetite and involvement of Indian entrepreneurs are set to increase, thereby seeing a shift to R&D as a product or cost-sharing kind of model, discussed *infra*.

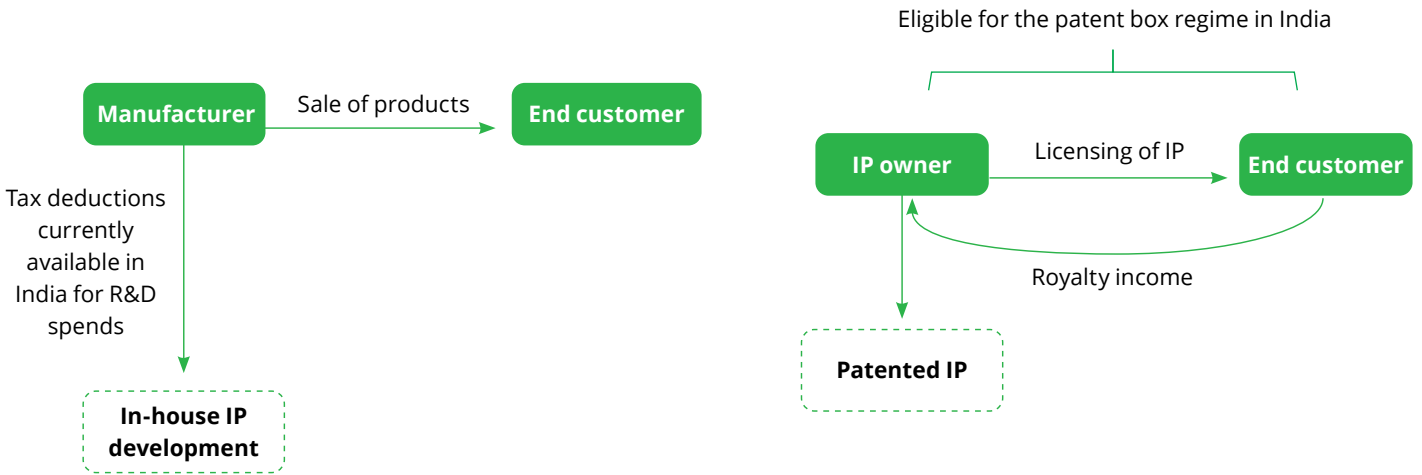
<sup>6</sup>OECD R&D tax incentives database, 2021 edition

<sup>7</sup>OECD R&D tax incentives database, 2021 edition





## R&D as a product



India has granted measures in line with the incentives provided across the world to promote R&D (as a product).

Currently, incentives provided in India (i.e., patent box regime and tax deductions) are largely focused on R&D as a product model.

Though incentives are extended to encourage innovation and research, in the following paragraphs, we have tried to explore if any revisions are required to the existing incentives or whether any additional incentives can be introduced to provide further impetus to the R&D sector.



# How to make India a global R&D hub?

The following initiatives can be explored to make India a global R&D hub:

## In R&D as a product model

### Refinement of the existing patent box regime

While introducing the patent box regime, it was mentioned that “research is the driver of innovation and innovation provides a thrust to economic growth.”

The introduction of the patent box regime in India reflected the government’s pro-active approach to promote India’s home-grown businesses and local R&D. The move was widely welcomed by stakeholders and experts across the country.

Under the existing regime, royalty income arising from patents registered by Indian residents under the Patent Act shall be subject to a lower tax rate of 10 percent, subject to 75 percent of the development being undertaken in India.

While the special regime has been in operation in India since 2016, European countries, such as Luxembourg and the Netherlands, continue to be favourite destinations for housing IP on account of attractive aids and incentives.

Some of the reasons that could have acted as a deterrent to making the regime attractive to businesses are summarised below:

## Challenges in the current regime

### Limited scope for eligibility and cumbersome registration process

- a. The current regime is applicable only to Indian residents and for royalty income arising from patents registered under the Patents Act, 1970.
- b. As a result, there is not much of a stimulus to non-resident holders of patents either registered in India/exploited to earn income in India. This is evidenced by the number of patent applications received.  
Many countries received a large number of patent applications in 2021 compared with 2020. The largest increases were seen in Australia (10.6 percent), India (8.5 percent), Canada (7.5 percent) and China (5.9 percent). While in Australia and Canada, an increase in non-resident filings was the principal driver of overall growth, in China and India, the increase was contributed by resident filings.<sup>9</sup>
- c. Added to the restrictive eligibility, the process of registering a patent in India is cumbersome, consuming much time and effort. Hence, there is always a pushback to having the innovations patented in India.
- d. In fact, studies indicate that R&D firms operating in India are intensively generating R&D output. However, most of it is being patented abroad by their parent/affiliate firms.

While the Information and Communications Technology (ICT) sector is the largest in terms of R&D into FDI inflows, it has a low share of the patents granted in India. The Patents Act of India does not permit the patenting of innovations in software per se unless they are combined with hardware.<sup>10</sup> Much of the research in India is in software, and software alone is not patentable.

As the current incentives are restricted only to patents and do not cover other IPs such as know-how, copyrights, designs and models, the preferential regime has not found many takers in the market.

### Inclusion of other intellectual property

- a. The patent box regime applies only in relation to the royalty income earned from patents and does not extend to income arising on the transfer of patents, unlike some of the other jurisdictions, such as France and Luxembourg.
- b. Furthermore, if in-house R&D has resulted in patents that are used in the manufacturing process or rendering services, the resultant income (i.e., revenue from operations) does not benefit from the preferential regime.
- c. In addition to the patent applications, India received 21,446 industrial design applications in 2021, showing a sharp increase compared with 2020.<sup>11</sup> Furthermore, India received 30,988 copyright applications in FY 2021–22.<sup>12</sup> This is a reflection that the country's ever-emerging innovation is not limited to patents alone.

As the current incentives are restricted only to patents and do not cover other IPs such as know-how, copyrights, designs and models, the preferential regime has not found many takers in the market.

### Allowability of expenses/carry forward of losses

No expenditure or benefit to carry forward losses, in respect of such royalty income is allowed under the current regime.

Thus, businesses initially developing the IP and incurring huge losses do not benefit from the existing patent box regime. The shift of incentives from cost-based to income-based does not provide impetus for innovators/risk takers for new R&D.

### Lock-in of 5 years

If a taxpayer chooses to not be governed under the patent box regime for any particular year, the option cannot be exercised for five more assessment years. Taxpayers can perceive this as extremely rigid, with no room for flexibility.

<sup>9</sup>World Intellectual Property Organization IP Facts and Figures 2022

<sup>10</sup>Report of the Principal Scientific Advisor to the Government of India

<sup>11</sup>World Intellectual Property Organization IP Facts and Figures 2022

<sup>12</sup>Report from the Office of the Controller General of Patents, Designs, Trademarks and geographical indications, Government of India



**Changes that can be introduced**

While the reforms introduced were in the right direction, certain measures can be undertaken to overcome the challenges detailed above.

**Broadening the scope of the regime**

**a. Extending the regime to non-residents**

The current regime is applicable only to Indian residents. Measures can be taken to extend the regime to non-residents as well, with some checks, such as carrying out substantial development of IP in India. This would be in line with the nexus approach prescribed by the OECD that attracts a higher revenue.

The above approach is followed in Ireland, Luxembourg, the Netherlands, Singapore and the UK.

**b. Broadening the scope of the term “patentee”**

Expanding the scope of the term “patentee” so that the concessions are available to the subsequent owner (transferee) of the patent and not just the true and first inventor of the invention.

Moreover, development requirements can be imposed to ensure that acquired IP can no longer benefit from relief unless it is further developed in line with OECD BEPS Action Plan 5.

This approach is currently followed in Ireland, Luxembourg and the Netherlands.<sup>13</sup>

**c. Broadening the scope of eligible IPs**

The current patent box regime offers a lower tax rate only for patents. The patent box regime can be replaced by an innovation box regime, wherein the benefits can be

extended to income from designs, copyrights and models. The above approach is currently followed in countries such as China, Ireland and Luxembourg.<sup>14</sup> China has also extended its patent box to allow income from certain types of commercial “know-how,” such as process innovation.

Furthermore, the term can include patents registered outside India, provided the nexus approach is followed to determine the amount of income that will be eligible for the lower tax rate.

**Allowance of expenses and carry forward of losses**

- a. Currently, no expenditure is allowed against income. Certain R&D expenses, amortisation of intangibles and other charges may be allowed as a deduction against the income earned. The net income after allowing for expenses can be taxed at a lower rate.
- b. Likewise, losses incurred during R&D efforts can be allowed to be carried forward and set off in future years against royalty income.

Example: Under the R&D regime in the Netherlands, where income generated by a qualifying intangible exceeds the related R&D expenses, other charges and amortisation of the intangible, etc., such excess income is taxed at a lower rate. Furthermore, losses are allowed to be carried forward and set off in the future.

**Impact on the ETR**

**Amount in INR**

Particulars	Reference	Year 1	Year 2
Income earned	A	Nil	200
Expenses incurred	B	70	50
Income	C = A-B	Nil	150
Loss	D = B-A	(70)	Nil
Base tax per existing regime	E = A*10%	Nil	20
Base tax per proposed regime	F = (A-B-D c/f) *10%	Nil	8

The comparison of patent box rates in other countries across the world has been captured in **Annexure 4**.

<sup>13</sup>OECD Taxation Working Papers No. 60 - Design features of income-based tax incentives for R&D and innovation

<sup>14</sup>OECD Taxation Working Papers No. 60 - Design features of income-based tax incentives for R&D and innovation

## A robust and efficient IP/patent regime

- Fast track examination of patents: Under the Indian patent system, it takes up to 8 years or more to obtain a decision on a patent application. To incentivise R&D in key sectors, such as software/technology, agriculture, renewables and healthcare, the government could offer a fast-track patent examination route to permit entities whose inventions pertain to such sectors to be expedited and taken up on priority over other patent applications.
- Introduction of SME patent examiners: The patent office could consider dedicating Subject Matter Expert (SME) examiners and controllers of patents to the task of examining and processing patent applications pertaining to the key sectors mentioned above. This could have a positive impact on efficiency and the quality of patent examination.
- Fast track examination could be extended to other categories of IP rights, such as industrial designs and Semiconductor Integrated Circuit Layout Designs (SICLDs).
- Trade secrets: A substantial part of R&D and innovation remains in the form of trade secret or confidential information and is never applied for protection as a patent for strategic reasons or otherwise. One such reason is that a patent application, upon publication, comes into the public domain and can be accessed/viewed universally. Entities may sometimes strategically choose not to file patent applications for certain components in their R&D pipeline that they may not wish for their competitors (or the public at large) to know about. Certain other inventions may be excluded from protection under the existing patent regime, such as business models, algorithms and software. India currently does not have a statute that protects trade secrets. The government should consider introducing a regime to protect trade secrets. The 22nd Law Commission of India has also recommended<sup>15</sup> the introduction of a separate law on the protection of trade secrets (on 5 March 2024).
- Furthermore, the government could take the following measures to protect the IP regime in India:
  - a. Setting up a dedicated, specialised IP enforcement department within the law enforcement.
  - b. Establishing a National IP Coordination Centre to collect intelligence and coordinate enforcement efforts among government stakeholders (such as customs, law enforcement, courts and the IP office)
  - c. Amending existing IP statutes to introduce statutory damages as a remedy against infringers (especially repeat infringers)

## Streamlined tax framework for entrepreneurial R&D in India

- a. To reinforce India's ambition as a leading global hub for R&D, it is crucial to enhance the tax guidelines for entrepreneurial R&D, with a specific focus on the intricacies of intangible asset ownership.

The 2013 Circular No. 6 by the CBDT, which delineated R&D centres based on their functionality and risk, highlighted the need for a more nuanced approach towards entities that play a pivotal role in R&D and bear significant economic risks.

- b. Incorporating the DEMPE (Development, Enhancement, Maintenance, Protection, and Exploitation) framework as contemplated by the OECD guidelines under BEPS Action Plan 8–10 of the Inclusive Framework into India's tax regime – Adopting or adapting OECD guidelines on R&D with specific emphasis on DEMPE functions, could serve as a solid framework for these refined guidelines. Should deviations from the OECD standards be necessary to accommodate India's unique R&D ecosystem, these differences should be clearly articulated.

Furthermore, affirming that these comprehensive guidelines on DEMPE, including the nuanced treatment of economic versus legal ownership and the economic substance of R&D activities, would signify a progressive step towards modernising India's R&D tax framework. Aligning with global best practices in this manner is poised to enhance transparency, encourage further R&D investment and foster innovation in India's R&D sector.

Aligning India's transfer pricing guidelines with international standards, particularly those outlined by the OECD, would ensure that profits attributed to R&D activities within India are commensurate with actual economic contributions, fostering further investment and innovation in the R&D sector.

<sup>15</sup>Trade Secrets Law Commission

## In R&D as a service model

### Reduction in margins

- a. As discussed supra, contract R&D is a popular model, with overseas entities setting up their delivery centres in India to support their R&D activity.
- b. Per a survey, 80 percent of the surveyed companies expected their global engineering R&D spend to increase in 2022 compared with their 2021 budgets. Around 85 percent of companies also indicated a continued upward trajectory in budget over the next three years.

Furthermore, over 70 percent of the surveyed companies with GCCs/Engineering Service Providers (ESPs) in India plan to increase their ER&D spend in their India GCCs or ESPs this year.

This decision is driven by the fact that India is fast becoming the hub for digital engineering skills for most ER&D companies.<sup>16</sup>

- c. Revamping Safe Harbour Rules (SHR)

To boost India's position as a global R&D hub, a critical examination and recalibration of the existing SHR for contract R&D services are imperative. The current SHR, established in 2017, sets a uniform operating profit margin of 24 percent for contract R&D services related to software development and generic pharmaceutical drugs, provided the value of the international transaction does not exceed INR200 crore (~US\$26 million).

While this framework has provided some clarity and certainty, it is noteworthy that Indian entities that are often engaged in contract R&D activities face TP audits concluding with an upward adjustment of 28-30 percent margin.

This discrepancy between the SHR provisions, the outcomes of TP audits and the actual industry range of margins indicates the pressing need to revisit safe harbour margins to make India an attractive market for contract R&D. The rapidly evolving technological landscape and the expanding scope of R&D across various industries necessitate a more nuanced approach.

### Proposed enhancements to SHR for contract R&D services

1. **Unified and inclusive SHR framework:** A consolidated SHR provision covering all R&D services could simplify compliance, reducing the need for separate clauses for

software development and pharmaceutical R&D. This integration is crucial as it acknowledges the blurring lines between different R&D sectors due to interdisciplinary innovations.

2. **Expanded coverage and threshold adjustment:** Increasing the threshold for the value of international transactions from the current cap of INR200 crore to INR500 crore can make the SHR more inclusive, accommodating the growth and inflation-adjusted revenues of R&D service providers. This change is vital, especially considering that current margins do not fully reflect the routine nature or the low value of the functions performed by many R&D service providers.
3. **Industry-specific margins:** Introducing a matrix for determining industry-specific safe harbour margins is crucial, given the diversity in operational dynamics across sectors such as AI, aerospace, life sciences and energy. This approach would ensure that the margins reflect the varying degrees of value addition, risk and investment associated with different industries, moving beyond the one-size-fits-all margin of 24 percent.
4. **Fallback mechanism for unspecified categories:** For R&D services that do not fit neatly into predefined industry categories, a fallback mechanism based on a wages-to-total-cost ratio could provide a fair and equitable way to determine SHR margins. This ensures that all entities, regardless of their niche, can benefit from the SHR provisions.
5. **Simplification and encouragement of SHR adoption:** Streamlining the SHR implementation process can significantly enhance its attractiveness and utility for R&D service providers. Clear guidelines, straightforward application procedures and increased awareness campaigns can encourage broader adoption.

By adopting these recommendations, India can create a more conducive, flexible and globally competitive environment for R&D activities. Rationalising the SHR for contract R&D services, especially by revisiting the margins to reflect the routine nature of the work more accurately, is a critical step towards making India a global R&D hub.

This approach not only supports the vibrant ecosystem of existing R&D service providers but also paves the way for emerging sectors and technologies to thrive within India's borders.

<sup>16</sup>Global Engineering R&D Pulse Survey 2022 – Global demand market insights May 2022 (Deloitte)

### Creation of R&D hubs in specified areas

- a. Certain specified areas can be identified and demarcated as R&D hubs (similar to existing SEZs / IFSC – GIFT city).

The benefit of setting up these hubs is that they will encourage R&D in India, while the hubs can have a free trade jurisdiction with preferential tax rates, duty benefits, facilitating ease of doing business, ease of foreign investments, etc.





## Global scenario

- a. Countries such as China, Luxembourg and Malaysia have established innovation zones to promote research and innovation.
- b. Entities established in these zones will be eligible for special incentives/benefits. Some illustrative examples are as follows:
  - Grant of financial subsidies, rewards and innovation honours, e.g., China
  - Grant of specific aid for (i) the construction or modernisation of innovation clusters and (ii) the operation of innovation clusters (e.g., Luxembourg)
  - 70 percent or 100 percent tax exemption for 10 years, subject to conditions with respect to number of employees, expenses, etc. (e.g., Malaysia)

## Suggestions

Considering the practices followed in various countries and taking cue from the erstwhile SEZ regime, the following benefits may be considered to promote R&D hubs in the country:

- a. Treat the R&D hub as a separate jurisdiction to enable ease of investment flowing into the R&D hubs under FDI.
- b. Special incentives for units creating job opportunities in R&D hubs (through grants/tax deductions/tax holiday).
- c. Tax exemptions under GST and customs laws, in line with similar entitlements to units located in SEZ, for procurement of both goods and/or services.
- d. Tax incidence on income arising to the developer of R&D hub or for the units set up in the R&D hub to be reduced by way of tax holidays for 10 years – similar to Section 80LA provided for IFSC/Section10AA provided to SEZ units.

From the above incentives, it is expected that

- An opportunity would be available to entrepreneurs, scientists and researchers in India to showcase their capabilities and promote the country's innovation ecosystem.
- Employment opportunities are created in India.
- India can become a favoured destination for the R&D sector.
- There would be an inflow of foreign exchange into India that would benefit the Indian economy.

## National R&D policy to attract fresh investments

- a. The government has been simplifying the tax regime by curtailing exemptions under GST and customs. While this reduces the scope for tax disputes and provides higher tax certainty, there should be an alternate channel to support new investments in R&D. This could include grants through budgetary support under a dedicated national R&D policy. The policy could consider the following measures:
  - Outcome-based subsidy to support R&D based on well-defined and targeted outcomes
  - Fiscal support may be linked to multiple parameters, such as scale of investment, employment generation, existing footprint of the organisation and the proposed size of operations
  - Segmentation in fiscal support measures could be considered to lay specific emphasis on key sectors or areas of strategic importance
  - A limited application window could be provided to allocate an incentives budget among applicants based on a prescribed selection criteria, such as the production linked incentive schemes notified by the Indian government. The criteria could include the global revenue of the group, existing certifications/patents and minimum investment commitment. Based on performance of the scheme, subsequent rounds can be considered for new investments.
  - Other policy features should be designed such that targeted objectives or outcomes are met through suitable obligations, conditions and performance appraisals under the scheme.
- b. While policies to support R&D units through fiscal incentives already exist at the state level, a national R&D policy would channelise these efforts in the right direction, generating interest for fresh investments. Overall, combined support from both the central and state governments could be instrumental in making India a global R&D hub.

## Other points for consideration

### i. Enhanced dispute resolution mechanisms – Arbitration and mediation-type forum

Introducing advanced dispute resolution mechanisms, particularly through an arbitration and mediation-type forum, could significantly benefit R&D companies in India. It is a sector where profitability is not always guaranteed, but transfer pricing (TP) adjustments are frequently encountered. Due to the inherent uncertainties and complex nature of R&D activities, these entities often face contentious TP adjustments that can hinder their focus on innovation and development. The current avenue for appealing TP adjustments involves the Dispute Resolution Panel (DRP), which, despite its intentions, has often been critiqued for providing limited relief to taxpayers due to its constraints of being within the revenue department's framework.

Expanding the dispute resolution framework to establish a process that is in the nature of arbitration and mediation-type forums would offer R&D centres a more effective, neutral and potentially faster avenue to resolve TP disputes. Such a forum could provide a binding resolution through arbitration, using experts' in-depth understanding of R&D activities, while also facilitating mediation to achieve mutually agreeable solutions between tax authorities and R&D entities, thereby preserving business relationships and promoting future cooperation. Incorporating such a forum

alongside the existing Mutual Agreement Procedure (MAP) and Advanced Pricing Agreements (APAs) would enrich the dispute resolution landscape for R&D entities in India.

### ii. Harmonising outcomes of TP audits with R&D tax incentives

To promote R&D growth in India, it is critical to align the outcomes of TP audits with R&D tax incentives, ensuring that incentives aimed at fostering innovation are not undermined by TP adjustments. This alignment is particularly vital for R&D-focused companies in zones such as the GIFT City, where tax incentives are key to their growth. Drawing from the startup model, where tax incentives remain unaffected by TP adjustments, similar clarity and protection should be extended to all R&D incentives, safeguarding their effectiveness against TP impacts. By clarifying the interaction between TP adjustments and R&D incentives, India can assure R&D entities of consistent support, encouraging investment in innovation and creating a tax environment conducive to R&D advancement.

### iii. Streamlining APAs to foster R&D investment in India

To boost R&D hubs' interest in India, enhancing the APAs process is key, especially for complex R&D transactions. This would signal India's commitment to supporting innovation, making it an attractive destination for R&D investment.





# Regulatory/policy enablement

## A definitive framework for NRF

The Anusandhan National Research Foundation Act, 2023, provides a broad framework to promote, monitor and provide high-level strategic support for research, innovation and entrepreneurship in India. However, it lacks a detailed operational mechanism, including procedures for raising funds, especially from the private sector, disbursement of funds and a

roadmap for the establishment of a robust R&D ecosystem. In this regard, a framework with outcome-oriented R&D incentives and goal-specific R&D funding could be devised. Frontier areas can be identified and grants to leading Higher Educational Institutions (HEIs), PSUs, corporations with matching second-third party funding against equity can be granted.

## Sector-based approach to R&D and Innovation

In the absence of a centralised regulatory framework for R&D and innovation, the government could adopt a sector-based approach to policymaking in sectors such as technology, agriculture and renewables, ensuring global competitiveness. Funding mechanism can be aligned based on sectoral priorities to ensure that research efforts focus on addressing key challenges and opportunities within each sector, while driving innovation, economic and social progress. Two examples are mentioned below:

- The Ministry of Chemicals and Fertilisers has launched the National Policy on Research & Development<sup>17</sup> and Innovation in the pharma-MedTech sector, emphasizing streamlined processes, investment incentives and fostering an R&D ecosystem. This policy could serve as a model for other sectors, providing a framework for effective implementation, monitoring and evaluation.
- The Indian Space Policy, 2023, pursues a holistic approach by encouraging and promoting greater private sector participation in the entire value chain of the space economy, including advanced R&D in the space sector to sustain and augment the Indian space programme. It enables participation from NGEs, encouraging them to participate across space exploration programmes. The Indian Space Research Organisation (ISRO) has been entrusted with fostering collaborations and partnerships with industry and academia – both national and international – to pursue R&D in space science, technology and applications.

## Points for consideration

### • Creation of a central R&D subsidy framework

The framework seeks to support eligible R&D projects through grants/incentives and to alleviate the burden of R&D costs on businesses, academic institutions and research entities. Such a subsidy programme would promote investments in R&D initiatives and stimulate greater participation from smaller

players/start-ups by reducing entry barriers. Germany, under the German Research Allowance Act 2020,<sup>18</sup> has enabled a similar initiative that introduces a federal R&D subsidy of 25 percent of salaries and wages for certain R&D purposes to be guaranteed to a firm (tax free) for their internal or subcontracted R&D activities.

### • Introduce research funding programmes to promote international collaborations

The government can introduce R&D funding programmes focused on driving innovation and facilitating partnerships between researchers, institutions and organisations from different countries, fostering the exchange of ideas, expertise and resources. The government can introduce bilateral and multilateral grants to finance joint research projects as strategic investments in fostering global innovation, scientific excellence and sustainable development. Japan, for instance, has introduced such multifaceted programmes namely the e-ASIA Joint Research Programme (e-ASIA JRP)<sup>19</sup> and the “Kakenhi” (Grants-in-Aid for Scientific Research)<sup>20</sup> to provide for international collaborations in scientific research, social sciences and natural sciences.

### • Special loan guarantee programmes for new, emerging sectors

Introduce policies/framework to promote loan guarantees for new and emerging sectors such as clean energy, quantum computing and AI to encourage industry/businesses/start-ups to pursue high-risk and high-reward projects. Eligibility criteria may include factors such as the project’s scientific merit, market potential and technical feasibility. Along these lines, the US has enabled the Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science Act of 2022<sup>21</sup> that seek to attract investments in domestic semiconductor manufacturing and advance R&D in technologies such as quantum computing, AI, clean energy and nanotechnology. It also aims to establish new high-tech hubs and enhance the STEM workforce. Moreover, to boost R&D in clean energy, the Inflation Reduction Act 2022<sup>22</sup> was introduced to provide funding for key clean energy research programmes in the form of loans and credit subsidies as loan guarantees for innovative clean energy technologies.

<sup>17</sup>National Policy

<sup>18</sup>Deloitte

<sup>19</sup>International Activities | Japan Science and Technology Agency (JST)

<sup>20</sup>Grants-in-Aid for Scientific Research | KAKENHI | JSPS

<sup>21</sup><https://www.congress.gov/bill/117th-congress/house-bill/4346>

<sup>22</sup><https://home.treasury.gov/policy-issues/inflation-reduction-act>



## Annexure 1

Particulars	Conditions	Pros	Cons
<b>Deduction on R&amp;D expenses</b>	<ul style="list-style-type: none"> <li>100 percent of the capital (other than on land cost) and revenue expenses on in-house R&amp;D allowed as deduction</li> <li>Pre-commencement expenses within three years immediately before commencement of business on scientific research related to the business will be allowed</li> </ul>	<ul style="list-style-type: none"> <li>Allows deduction of revenue and capital expenses</li> <li>Allows deduction of pre-commencement expenses</li> </ul>	<ul style="list-style-type: none"> <li>The erstwhile super deduction of 200 percent/150 percent has now been reduced to 100 percent.</li> <li>The shift of incentive from cost base to income base does not provide impetus for innovators/ risk takers for new R&amp;D</li> </ul>
<b>Patent box</b>	<p>Royalty income<sup>23</sup> in respect of a patent developed and registered in India to be taxed at 10 percent</p> <p>Where an individual is in receipt of royalty income<sup>24</sup> arising from a patent, such individual shall be allowed a deduction of up to INR300,000</p>	<ul style="list-style-type: none"> <li>Proactive changes in the patent box regime will help India compete with other tax friendly jurisdictions</li> <li>Will result in promotion of innovation and research in the country</li> </ul>	<ul style="list-style-type: none"> <li>Incentives are provided only for patents and does not cover within its ambit know-how, designs, copyrights and models.</li> <li>No expenditure or allowance in respect of such royalty income shall be allowed.</li> <li>Covers only patents registered and developed in India.</li> <li>Applicable only for Indian residents.</li> </ul>
<b>Customs duty exemption and concessions</b>	<p>Exemption and/or concessional rate of basic customs duty and IGST on import of specified equipment, prototypes, software, etc, by research institutions/ in-house R&amp;D units subject to conditions<sup>25</sup></p>	<ul style="list-style-type: none"> <li>Reduced rate of basic customs duty promotes import of advanced technology in India</li> <li>R&amp;D units by MNCs are encouraged to setup units as they can import their proprietary technology at lower/ nil duty</li> </ul>	<ul style="list-style-type: none"> <li>Concessional rate benefits are subject to strict conditions leading to rejection of benefits or tax disputes</li> <li>Customs duty benefits are being phased out; validity extended until 30 September 2024</li> </ul>

<sup>23</sup>Section 115BBF of the Income-tax Act, 1961

<sup>24</sup>Section 80RRB of the Income-tax Act, 1961

<sup>25</sup>In terms of Customs Notification No. 50/96-Customs dated 23 July 1996, and Notification No. 51/96-Customs dated 23 July 1996, amended as on date



**Annexure 2<sup>26</sup>**

Particulars	Features	Countries <sup>27</sup>
<b>Accelerated depreciation on R&amp;D assets</b>	An accelerated capital allowance (which can be written off over 1–3 years) is allowed on capex incurred on qualifying machinery or plant for any R&D intangible assets	<ul style="list-style-type: none"> <li>• Ireland</li> <li>• Netherlands</li> <li>• UK</li> </ul>
<b>Patent related incentives</b>	Reduced tax rates for qualifying assets (i.e., patents, computer software, etc.)	<ul style="list-style-type: none"> <li>• Ireland</li> <li>• Luxembourg</li> <li>• Netherlands</li> <li>• Singapore</li> <li>• UK</li> </ul>
<b>Tax credits</b>	<p>A tax credit is an allowance that is directly made against the tax liability. It is provided in multiple ways:</p> <ol style="list-style-type: none"> <li>a) Volume based – Provided as a percentage of the qualifying R&amp;D spend</li> <li>b) Incremental – Provided in incremental R&amp;D spend over and above the spend in the previous year</li> <li>c) Hybrid – A combination of above</li> </ol>	<ul style="list-style-type: none"> <li>• Germany</li> <li>• Ireland</li> <li>• Japan</li> <li>• UK</li> <li>• USA</li> </ul>
<b>Tax deduction/ super deduction</b>	Deduction/enhanced deduction (100–300 percent) of R&D expenses incurred against the income earned	<ul style="list-style-type: none"> <li>• China</li> <li>• Ireland</li> <li>• Netherlands</li> <li>• Russia</li> <li>• Singapore</li> <li>• UK</li> </ul>
<b>Tax exemption</b>	Exemption of income arising out of R&D activities	<ul style="list-style-type: none"> <li>• China</li> <li>• Luxembourg</li> <li>• Russia</li> </ul>
<b>Tax holiday</b>	Exemption of income earned for a fixed span	<ul style="list-style-type: none"> <li>• China</li> <li>• Russia</li> </ul>
<b>Reduced tax rates/preferential tax rates</b>	Reduced tax rates from direct (9–15 percent) and indirect tax perspective	<ul style="list-style-type: none"> <li>• China</li> <li>• Ireland</li> <li>• Netherlands</li> <li>• Singapore</li> <li>• UK</li> </ul>
<b>Reduced social security contribution</b>	Reduced rate of social security contributions available	<ul style="list-style-type: none"> <li>• Netherlands</li> <li>• Russia</li> </ul>
<b>Cash grants</b>	Fiscal support is provided through cash grants based on R&D expenditure, employment generation and other criteria	<ul style="list-style-type: none"> <li>• Canada</li> <li>• China</li> <li>• France</li> <li>• Germany</li> <li>• Israel</li> <li>• Japan</li> <li>• Netherland</li> <li>• Singapore,</li> <li>• United Kingdom</li> <li>• United States</li> </ul>

<sup>26</sup>www.ibfd.org

<sup>27</sup>The list of countries is not exhaustive

Country-wise incentives

Particulars	Accelerated depreciation on R&D assets	Patent-related incentives	Tax credits	Tax deduction/super deduction	Tax exemption	Tax holiday	Reduced tax rates/preferential tax rates	Reduced social security contribution	Cash grants
Ireland	Yes	Yes	Yes	Yes			Yes		
Netherlands	Yes	Yes	Yes	Yes			Yes	Yes	Yes
UK	Yes	Yes	Yes	Yes			Yes		Yes
Luxembourg	Yes	Yes	Yes		Yes				
Singapore		Yes		Yes			Yes		Yes
Germany			Yes						Yes
Japan			Yes						Yes
US			Yes						Yes
China				Yes	Yes	Yes	Yes		Yes
Russia	Yes		Yes	Yes	Yes	Yes	Yes	Yes	
Canada	Yes		Yes			Yes	Yes		Yes
France	Yes	Yes	Yes			Yes	Yes	Yes	Yes
Germany			Yes						Yes

Annexure 3

Country	GII Ranking 2022	Innovation input		
		Gross expenditure on R&D % GDP	Patents*	Industrial Designs***
China	11	13	1	1
Russia	47	38	17	63
India	40	53	28	66
South Africa	61	54	72	62
Brazil	54	34	43	58

Source: Compiled by Authors from Global Innovation Index 2022 Report

Note: Numbers represent ranks \* Number of patent applications by residents (per billion PPP\$ GDP); \*\*\* number of designs contained in industrial design application by residents (per billion PPP\$ GDP)

#### Annexure 4

Country	Tax rate under patent box regime	Statutory corporate income tax rate
Belgium	3.76%	25%
France	10%	25.83%
Hungary	4.5%	9%
Ireland	6.25%	12.5%
Lithuania	5%	15%
Luxembourg	4.99%	24.94%
Netherlands	7%	20–25%
Portugal	10.50%	21.0%
Singapore	5–10%	17.0%
Slovakia	10.5%	21%
Spain - Federal	10%	25%
Spain - Basque Country	7.8%	25%
Spain - Navarra	8.4%	25%
Turkey (c)	11.5%	23%
UK	10%	19%

Source: OECD, Dataset Intellectual Property Regimes



# Connect with us

## **Rohinton Sidhwa**

Partner, Deloitte India  
rsidhwa@deloitte.com

# Contributors

## **Anantha Padmanabhan S**

## **Ashitha A**





# Deloitte.

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited (“DTTL”), its global network of member firms, and their related entities (collectively, the “Deloitte organization”). DTTL (also referred to as “Deloitte Global”) and each of its member firms and related entities are legally separate and independent entities, which cannot obligate or bind each other in respect of third parties. DTTL and each DTTL member firm and related entity is liable only for its own acts and omissions, and not those of each other. DTTL does not provide services to clients. Please see [www.deloitte.com/about](http://www.deloitte.com/about) to learn more.

Deloitte Asia Pacific Limited is a company limited by guarantee and a member firm of DTTL. Members of Deloitte Asia Pacific Limited and their related entities, each of which is a separate and independent legal entity, provide services from more than 100 cities across the region, including Auckland, Bangkok, Beijing, Bengaluru, Hanoi, Hong Kong, Jakarta, Kuala Lumpur, Manila, Melbourne, Mumbai, New Delhi, Osaka, Seoul, Shanghai, Singapore, Sydney, Taipei and Tokyo.

This communication contains general information only, and none of DTTL, its global network of member firms or their related entities is, by means of this communication, rendering professional advice or services. Before making any decision or taking any action that may affect your finances or your business, you should consult a qualified professional adviser.

No representations, warranties or undertakings (express or implied) are given as to the accuracy or completeness of the information in this communication, and none of DTTL, its member firms, related entities, employees or agents shall be liable or responsible for any loss or damage whatsoever arising directly or indirectly in connection with any person relying on this communication.