Three overlapping geometric shapes are positioned on the left side of the page: a blue circle, an orange diamond, and a green rounded square. The background of the entire page is a close-up photograph of a large, circular industrial cutting wheel, likely made of diamond or a similar abrasive material, as it cuts through a piece of light-colored stone or concrete. A bright, intense light is visible at the point of contact between the wheel and the material, and a spray of fine, dark particles is being ejected from the cut. The overall color palette is dominated by the warm tones of the stone and the metallic grey of the wheel, with the vibrant colors of the geometric shapes providing a modern, graphic contrast.

## REPORT SUMMARY

# QUALITY ASSESSMENT OF SOME STANDARDS AND TECHNICAL REGULATIONS OF VIETNAM

Research Group

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Standards and technical regulations issued by state agencies are legal documents that have a great impact on the operations of enterprises. If standards and technical regulations are built reasonably, transparently, feasibly and consistently, they can be an important infrastructure to help improve the quality of goods and products, facilitate trade activities, and promote the development of industries and the economy. On the contrary, if standards and technical regulations are unreasonable or excessive, they can have many negative impacts on the operations of enterprises such as increasing costs, prolonging the time of supplying goods and services, creating monopoly or dominating the market, etc.

Over the past 17 years of implementing the Law on Standards and Technical Regulations, Vietnamese state agencies have issued about 800 technical regulations and nearly 14,000 national standards. Among them, many standards and technical regulations have caused difficulties and inadequacies in implementation, as reflected and recommended by the business community. We use these standards and technical regulations as examples to illustrate some of the problems that may be encountered in the process of developing standards and technical regulations.

# Overview



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By the end of 2024, state agencies had issued 804 National Technical Regulations (abbreviated as NTR) that were still in effect. These regulations are currently managed by 13 ministries. The specific number divided by each ministry is summarized in the following table:

Table  
1

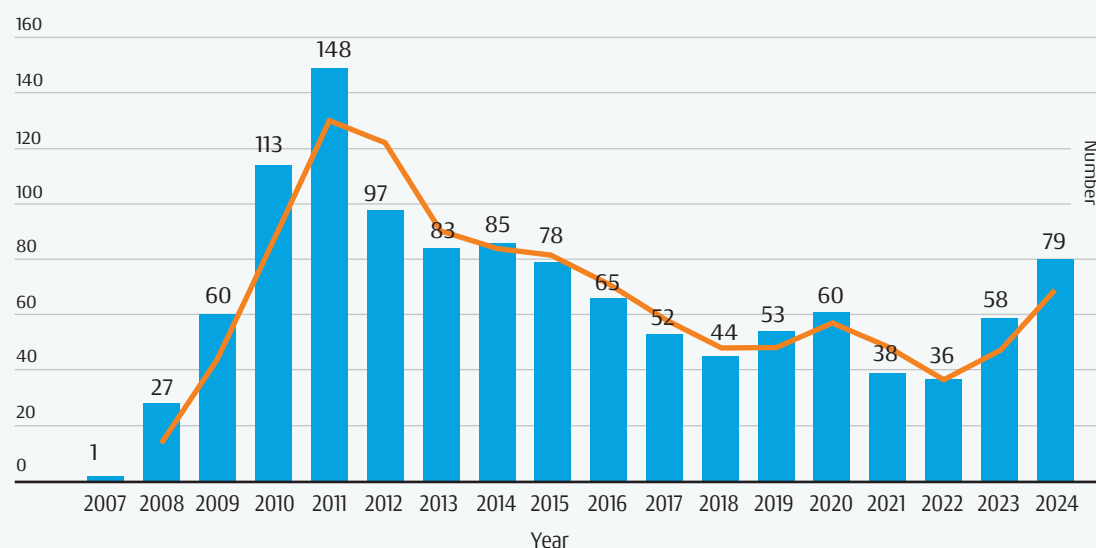
Number of NTRs by issuing ministry and area of application

NO.	MINISTRY	AREAS OF APPLICATION	QUANTITY
1	Public Security	Warehouse, weapons, materials, etc.	7
2	Industry and Trade	Equipment for electrical systems, gasoline, industrial explosives safety, etc.	93
3	Science and Technology	Steel, helmets, gasoline, children's toys, radiation, etc.	23
4	Labor - Invalids and Social Affairs	Labor safety, labor equipment, etc.	34
5	National Defense	Bullets, artillery, weapons, data security, etc.	15
6	Finance	Life-saving equipment, some state reserve equipment, etc.	31
7	Culture, Sports and Tourism	Cinema	1
8	Construction	Construction materials, types of construction, etc.	26
9	Health	Quality of food, medicine, water, etc.	78
10	Natural Resources and Environment	Environmental monitoring, noise, vibration, requirements for waste discharged into the environment, etc.	85
11	Transportation	Helmets, material requirements for traffic works, vehicles, etc.	148
12	Agriculture and Rural Development	Fertilizers, veterinary medicine, foods, etc.	131
13	Information and Communications	Terminals, artificial intelligence, internet of things, etc.	132
TOTAL			804

Analysis over time shows that in the first 4 years of implementing the 2006 Law on Standards and Technical Regulations, the number of NTRs issued increased rapidly. 2011 was also the year with the highest number of NTRs issued in history, up to 148. The following years witnessed a downward trend in the issuance of NTRs. From 2012 to 2015, the number of NTRs issued was at 80 to more than 90 documents per year. From 2016 to 2023, the number of NTRs issued each year continued to decrease, to only about 40 to 60 NTRs per year.

Figure  
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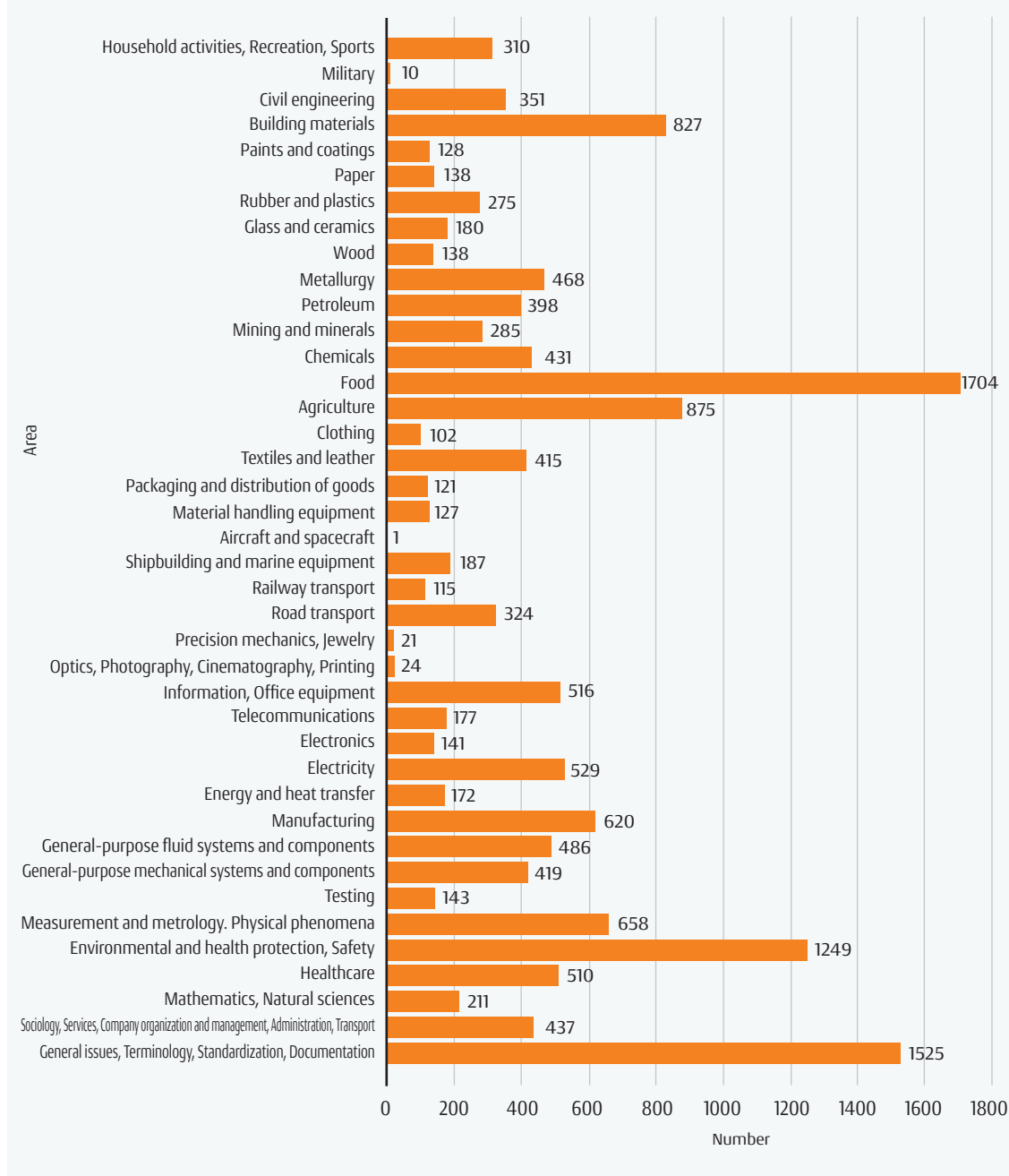
### Number of NTRs issued by year, including new, replacing and amended versions



For national technical standards (abbreviated as NTS), there are about 14,000 NTS and they are classified into 40 fields. The number of NTS in each field is shown in the chart below. The field with the most NTS is food with 1,700 NTS. Other fields with many NTS include construction materials, general issues (terminology, standardization, etc.), environmental protection, agriculture. A series of industries with more than 400 NTS include metallurgy, chemicals, textile manufacturing, footwear and office information.

Figure  
2

## Number of NTS issued by sector

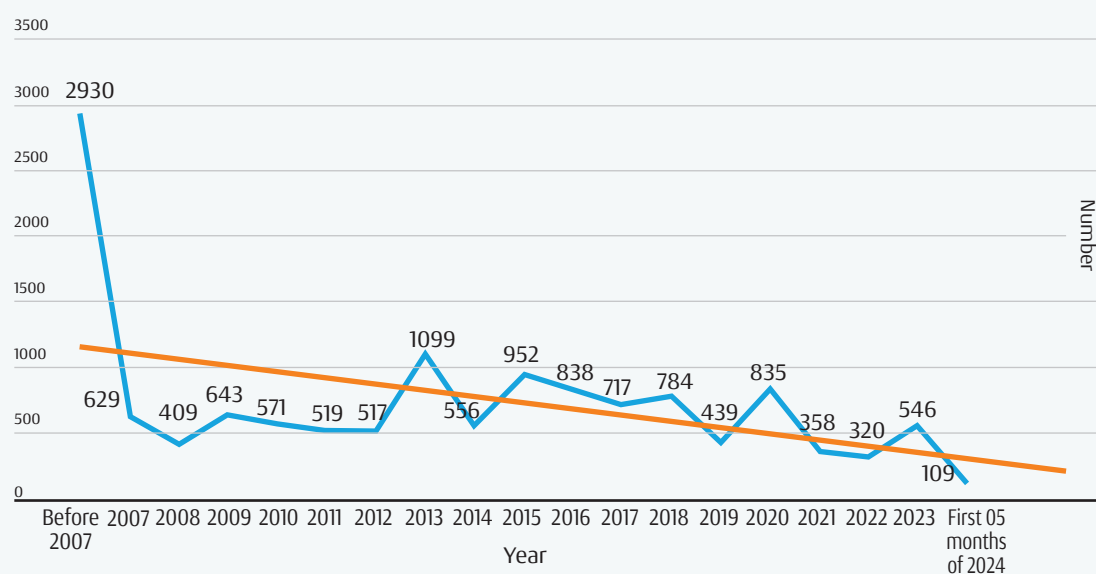




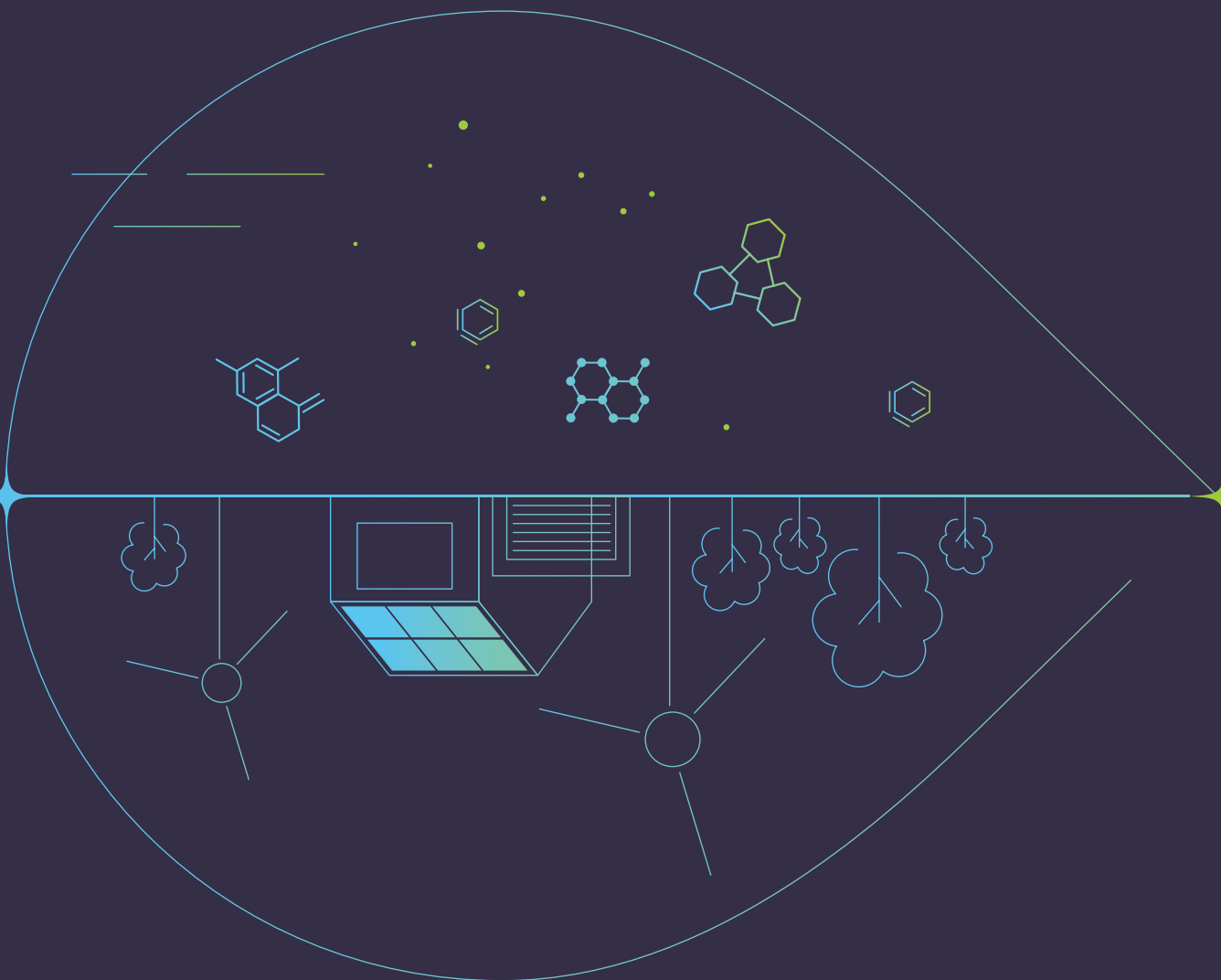
The graph of the number of NTS issued each year also shows a downward trend in issuance recently. Before the Law on Standards and Technical Regulations took effect in 2007, the number of NTS in Vietnam was 2,930 documents. From 2008 to 2012, Vietnam issued an average of about 500-600 NTS per year. From 2013 to 2020, the number of NTS issued each year increased to about 700-900 documents. However, from 2021 to 2024, this number decreased to only 300-400 documents per year.

Figure  
3

### Number of NTS issued by year



# Quality assessment of some standards and technical regulations



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To assess the quality of standards and technical regulations, we use general criteria to assess the quality of legal documents, including necessity, rationality, consistency, feasibility, transparency, and procedural compliance. We have further analyzed and developed some more detailed criteria specifically for standards and technical regulations that are different from other legal documents.

## THE NEED TO ISSUE

The need to issue a standard or technical regulation refers to the policy objectives of these documents. Normally, technical regulations are issued to ensure safety, hygiene, human health, protect animals, plants, the environment; protect national interests and security, and consumer rights. Meanwhile, standards are issued to classify and evaluate products, goods, services, processes, the environment and other objects.

### Other essential requirements

In addition to the objectives of protecting public interests such as safety, hygiene, human health, protection of animals, plants, the environment, national interests and security, and consumer rights, Clause 2 Article 3 of the 2006 Law on Standards and Technical Regulations also allows the promulgation of technical regulations aimed at other essential requirements. This is not really consistent with World Trade Organization regulations and is at risk of conflicting with the Law on Product and Goods Quality regarding the list of group 2 goods. In fact, the promulgation of technical regulations without the aim of protecting the listed public interests has occurred in the case of QCVN 20:2019/BKHCN – NTR on Stainless Steel.

### Market protection goals

A technical regulation when issued can aim at multiple purposes at the same time, including the goals of protecting public interests and the goal of protecting the market. In fact, there are many cases where countries in the world issue regulations on technical barriers to protect domestically produced goods, but are justified by other reasons such as protecting people and property. Market protection can be a double-edged sword for economic development and to have a good protection policy requires many factors. In the case of a technical regulation used as a protection tool, its impact, opportunities and challenges for the development of the industry need to be assessed very carefully.

### The goal is to improve quality or promote product consumption.

Through observation, we have noticed that in some cases, state agencies set out other policy objectives such as improving the quality of products and goods (for example, QCVN 20:2019/BKHCN – NTR on Stainless Steel) or promoting product consumption (for example, criteria for granulated blast furnace slag used in cement production under QCVN 16:2023/BXD – NTR on products and goods of construction materials). However, practice shows that technical regulations have almost no such effect. Meanwhile, the compliance costs and negative economic impacts of these technical regulations are real. In cases where it is necessary to aim at improving product quality or promoting product consumption, state agencies should use the tool of issuing standards along with other supporting policies such as communication to raise awareness or reduce taxes and fees.

### Other alternative solutions

Finally, when discussing the need for a technical regulation, drafting agencies should always ask the question of whether there are better management measures. Before deciding to apply technical regulations, alternative product safety management measures should be considered such as product registration and/or production process management. This is to avoid unnecessary social costs of product conformity procedures.

### Name of the standard

Standards are not mandatory, so they cause less trouble for businesses than technical regulations. However, national standards are effective in classifying, evaluating and naming accurately. Therefore, in cases where standards use common names and words, they can have a great impact on trade. National standards on fish sauce and traditional fish sauce are examples of this case. In such cases, careful consultation and consideration of the necessity and choice of words are very important before issuing national standards.

## RATIONALITY

The rationality of standards and technical regulations refers to whether the specific provisions in the standards and technical regulations help achieve the originally proposed policy objectives with the lowest possible negative impacts and social costs.

### The criteria are not intended for safety purposes.

Normally, technical regulations will include one or more evaluation criteria for products and goods. A current reality is that many criteria included in technical regulations are not intended to ensure safety but for other purposes such as reflecting the quality of those products and goods. The situation of mixing safety criteria and other criteria in technical regulations is quite common, appearing in many types of products and goods.

Practical examples can be found in QCVN 101:2020/BTTTT – NTR on lithium batteries for handheld devices and QCVN 09:2015/BCT – NTR on tissue paper and toilet paper products. Lithium batteries can be unsafe when they react chemically to generate heat, causing explosions or burns to users. However, the standards for lithium batteries include electrical standards such as battery capacity and fast charging capability. Toilet paper can also pose a risk to users if it contains residual toxic chemicals. However, the standards for toilet paper, in addition to standards for residual toxic chemicals and microorganisms, also include standards for durability and water permeability.

This practice probably comes from the fragmentation of policy making. Accordingly, the inclusion of a commodity in the list of group 2 commodities is carried out separately from the inclusion of criteria for evaluating that commodity. The process of deciding to include a commodity in the list of group 2 commodities takes into account the safety risk of that commodity. However, the process of deciding which criteria to include rarely takes into account the safety risk factor. Therefore, criteria that are not aimed at safety are easily included in technical regulations.

### The criteria are too strict

Some technical regulations set out overly strict criteria, causing difficulties and obstacles for enterprises' production and business activities. Examples reported by enterprises include the moisture content of microbial fertilizers being too low in QCVN 01-189:2019/BNNPTNT – NTR on fertilizer quality, the requirements for factories being too high in QCVN 06:2022/BXD – NTR on fire safety for buildings and constructions, the requirement for zero melamine content in milk, the requirement for too low phosphorus content for aquacultural wastewater in Draft NTR on industrial wastewater, and the 5G equipment standards that must support hybrid network architecture in QCVN 129:2021/BTTTT – NTR on hybrid 5G mobile communication network terminal equipment – Radio access part, etc.

### Too easy to meet criteria causes costly testing

If the standards are too high and too strict, causing businesses to spend a lot of money to meet them, then standards that are too low are also a problem. Standards that are too low mean that all types of goods on the market can easily meet them, regardless of whether or not they are in the standards. Thus, costs for testing and certification will be wasted unnecessarily. Although these standards may be necessary to ensure the safety of products and goods, if they are exceeded, they will cause harm. However, because the risk of violation is very low and almost zero, the costs for testing and certification will be wasted. Examples reflected by businesses include the radioactive activity standards for blast furnace slag and fly ash in QCVN 16:2023/BXD – NTR on products and goods of construction materials; and the heavy metal standards for animal feed of plant origin in QCVN 01-190:2020/BNNPTNT – NTR on animal feed.

### Unnecessary duplicate measurements

One issue we have received many comments on is the situation of too many unnecessary duplications of measurements. According to enterprise feedback, there are instances where the measurements are similar in nature, making it entirely feasible to use the results from previous measurements for subsequent products. However, current regulations still mandate repeated measurements, leading to increased costs for businesses. This problem seems to stem from the fact that the drafting agencies do not anticipate testing costs during the process of drafting standards. Examples reflected by enterprises are having to repeat too many measurements with the product designs of televisions and industrial electric cables.

## CONSISTENCY

Consistency refers to the content of legal documents being consistent with the policies and guidelines of the Party and State; not being contrary to legal documents with higher legal effect; not overlapping, contradictory, or duplicated with other documents; not being contrary to international commitments that Vietnam has participated in. Standards and technical regulations, in addition to meeting the above criteria, also need to ensure compatibility with world standards in order to facilitate the application process, reduce misunderstandings or costs for the conformity assessment process.

### Technical regulations contain business investment conditions.

The 2014 Investment Law has prohibited the issuance of business investment conditions in circular documents, including technical regulations, and requires the removal of previously issued cases. However, there are still QCVN 01-133:2013/BNNPTNT – NTR on paddy storage facilities and QCVN 01-134:2013/BNNPTNT – NTR on rice milling and husking facilities containing content on business investment conditions.

### Mechanical copying of foreign standards

Vietnam's current technical regulations are mainly drafted based on reference to foreign or international standards. In this process, the drafting agencies often remove or adjust contents that are not suitable for Vietnam's conditions. However, in some cases, mechanical copying still occurs. Examples given include the requirement to determine frost resistance in TCVN 6415-12:2016 – NTS on ceramic tiles – Determination of frost resistance and the requirement to test under harsh conditions in information technology equipment technical regulations.

### Non-recognition of foreign standards or minor differences from foreign standards increases the cost of conformity assessment.

In contrast to the case of mechanical copying, there are regulations or standards that do not recognize the corresponding foreign standards or have small differences compared to foreign standards, causing costly testing costs. Standards and technical regulations should be built in a direction similar to international standards to facilitate trade activities. However, some businesses have reported that goods imported to Vietnam must be re-tested even though they have similar test results in the world. Examples reported by businesses are regulations on 5G/4G networks, wifi and standards on construction steel that require re-testing even though the content of these standards is mainly copied from foreign standards.



### Overlapping between ministries and sectors in managing the same goods

The situation of a type of goods being managed by two different ministries used to be quite common. In 2018, during the Government's reduction and simplification of investment and business regulations, this situation was resolved relatively thoroughly. However, there are still some overlapping cases that cause difficulties for businesses. Examples include paint products with the same HS code but falling under the joint management of both the Ministry of Construction and the Ministry of Industry and Trade. Another example is electrical equipment, which is required to obtain both conformity certification and energy label.

### Inconsistency on management form and measures

Some types of goods are subject to both technical regulations and other legal documents with technical content. Examples are food and animal feed industry.

## FEASIBILITY

Feasibility refers to the conditions for the implementation of policies set out in legal documents. For standards and technical regulations, feasibility depends largely on the subject of the standards and regulations. For example, wastewater standards will be applied differently from standards on products and goods. However, one of the conditions for implementing standards and technical regulations is to have a qualified conformity certification activity.

### No or insufficient conformity assessment units

In the event that a technical regulation comes into effect but there is no or insufficient conformity assessment unit, it poses a huge risk to the production and business activities of the enterprise. This can cause goods to be congested or result in a monopoly over provision of conformity assessment services. Examples include not designating a wood glue conformity unit, not having a unit with sufficient capacity to test 5G technology, lacking a unit to test veterinary drugs, and not having enough capacity to test AC generators using piston internal combustion engines.

### Testing methods are restrictive, outdated, or too expensive

Testing methods are very important to be able to carry out standard and conformity procedures. These testing methods are often issued in the form of standards and are referenced in technical regulations for relevant parties to apply. However, some enterprises reflect that these measurement regulations are restrictive and outdated compared to the changes of society. The problems reflected are radar testing in standard environments, testing the surface of tempered flat glass, aviation magnetic testing, and testing the nozzle lock in pesticide injection equipment.

### Applicable period, roadmap and transitional regulations

The deadline for applying new technical regulations is also a very important factor for businesses. According to the Law on Promulgation of Legal Documents, the effective date of a legal document is no earlier than 45 days from the date of promulgation. Many businesses have reported that the deadline for applying new technical regulations of 45 days is too short for businesses to meet. This can greatly hinder the supply chain and reduce the predictability of the investment and business environment. Some cases reported by businesses include changes to construction material standards from 2014 to 2023; changes to standards on electrical safety and radio transmission and reception of electronic equipment; standards for dash cams installed on commercial vehicles; draft standards for industrial wastewater.

Changing technical regulations too quickly not only causes damage to businesses that produce and trade those products, but also affects testing service providers. In many cases, changes in standards cause investments in machinery and equipment to provide testing services to be wasted. This risk makes many testing units reluctant to invest in new machinery even though the market has demand, because they cannot know whether the regulations will change before they have time to recover their capital. For example, businesses report that the criteria for steel products have changed four times, leading to significant expenses for purchasing new testing equipment.



## TRANSPARENCY

Transparency refers to the fact that the content of standards and technical regulations is clear, objective, easy to understand, not subject to different interpretations, and convenient for application.

### The content of standards and technical regulations is unclear, causing controversy during the application process

We received a number of examples from businesses reflecting on the status of standards and technical regulations with unclear, meaningless, or ambiguous content, causing controversy during the application process, such as the wireless audio equipment testing environment in QCVN 91:2015/BTTTT – NTR on wireless audio devices operating in the frequency range from 25 MHz to 2000 MHz, and silicon testing standards in alkaline silicate fertilizers in TCVN 11407:2019 – NTS on Fertilizers – Determination of plant-available silicon content by molecular absorption spectrometry.

### Product classification is difficult to search

Food safety standards are reported by businesses to be difficult to look up because each standard does not apply to the product but to the indicator. Thus, the same product will have to meet many technical regulations at the same time. In addition, each of these standards uses different ways of classifying goods, causing many difficulties when applying.

### Errors in language, drafting techniques

Errors in language and drafting techniques still exist, such as water absorption, bending load, and crack resistance indicators for glazed ceramic roof tiles in QCVN 16:2023/BXD – NTR on construction material products and goods.

## PROCEDURES FOR DRAFTING AND PROMULGATION

The development and promulgation of standards and technical regulations must ensure compliance with proper procedures. Businesses are most concerned about ensuring public posting and consultation with affected businesses.

### Consultation with the affected subjects

Public posting of drafts and solicitation of comments from subjects affected by technical regulations are mandatory requirements in the process of drafting standards and technical regulations. Consulted stakeholders are relevant organizations and individuals. The form of consultation is a conference. The consultation period is 60 days. However, the situation of technical regulations being issued without businesses being consulted in advance still occurs. This situation can be caused by many reasons, both from businesses and state agencies. This reality shows that there is room for improvement in implementation so that the consultation process is more friendly to both businesses and drafting agencies. Cases that have been reflected include the lack of widespread consultation on silicon testing standards in fertilizers under TCVN 11407:2019 – NTS on Fertilizers – Determination of plant-available silicon content by molecular absorption spectrometry, and the failure to publish draft regulations in the case of QCVN 20:2019/BKHCN – NTR on Stainless Steel.

### Some problems when referring to foreign standards

Currently, there are no regulations regarding the reference to foreign standards in the process of developing Vietnam's standards and technical regulations. In fact, the opinions participating in the survey all agree that most of Vietnam's standards and technical regulations are issued based on reference to international and foreign standards. This reality leads to a number of problems that can be mentioned as follows:

- It is unclear whether the scope of application of foreign standards is voluntary or mandatory in some specific cases or mandatory for all, for example in the case of electrical characteristics of lithium batteries.
- Not understanding the content of foreign standards leads to incomplete and inaccurate translation, which in turn creates problems and inadequacies in the application process. For example, the draft QCVN 134:2024/BTTTT – NTR on specific absorption rate (SAR) for handheld and body-worn radio devices or the European concept of “baby food” in QCVN 8-1:2011/BYT – NTR on limits of mycotoxin contamination in food.
- Vietnamese standards or regulations are slow to be updated when foreign standards are adjusted. For example, slow adjustment of QCVN 11-3:2012/BYT – NTR on formulated nutritional products intended for supplementary feeding of children aged 6 to 36 months, slow updating of TCVN 5935-1:2013 – NTS on power cables and power cable accessories.



# Recommendations and solutions

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Currently, the Draft Law amending and supplementing a number of articles of the Law on Standards and technical regulations is being drafted and submitted to the National Assembly. The National Assembly is expected to pass this law at its session in May 2025. This is an opportunity for Vietnam to strengthen the process of developing standards and technical regulations to improve the quality of these documents, contributing to the national economic and social development.

#### ON THE PROCEDURES FOR DEVELOPING STANDARDS AND TECHNICAL REGULATIONS

We recommend that the impact assessment report be made a mandatory document in the dossier for developing technical regulations. The content of the impact assessment report includes issues regarding the necessity, rationality and feasibility of issuing technical regulations.

In case the drafting agency refers to foreign standards when promulgating Vietnamese standards and technical regulations, it is necessary to pay attention to a number of issues such as (1) in addition to the content of the standard, it is necessary to refer to the applicable subjects of that standard; (2) the translation needs to be carried out carefully and the terms need to be carefully annotated; (3) allowing businesses to apply both the old and new versions simultaneously when foreign standards are updated but the corresponding Vietnamese standards or technical regulations have not yet been revised..

The issue of public posting of draft standards and technical regulations must be ensured. The posting documents must not only include draft standards and technical regulations but also include proposals and impact assessment reports. There should be a common focal point for posting, avoiding scattered posting on many websites, making it difficult to monitor.

Consultation with affected parties when drafting standards and technical regulations is extremely important. The subjects of consultation must include enterprises, industry business associations and conformity assessment service providers that are or may be related to standards and technical regulations.

For the appraisal work, there needs to be more participation from representatives of affected subjects and legal units. Opinions in the appraisal report need to be explained or accepted before issuing technical regulations.

Vietnam needs to move towards abolishing the technical regulation mechanism according to international practice, and instead issue legal documents on which cases must compulsorily apply standards.



## ON THE CONTENT OF STANDARDS AND TECHNICAL REGULATIONS

Technical regulations should only be issued for the purpose of ensuring the safety of products, goods or public interests. Other objectives such as market protection, promoting transactions or improving the quality of products and goods should be carefully considered during the drafting process. Before issuing a technical regulation, the drafting agency should consider other solutions such as stipulating legal liability in case of risks or other process monitoring measures. In the case of issuing standards using common names, careful consideration is required.

When choosing to include testing criteria in technical regulations, it is also necessary to explain the goal of improving safety, rather than including criteria on the quality of goods. The criteria should not be too high, causing few businesses to meet them, nor should they be too low, causing waste of testing costs. Measurements should be designed to reuse existing measurement results and accept equivalent measurement results in international standards.

Technical regulations are not allowed to include content on investment and business conditions. Compatibility of Vietnamese standards and regulations with international standards should be emphasized to ensure facilitation of trade activities. It is necessary to ensure the principle that each type of product and goods does not have to meet many different technical regulations at the same time.

Before issuing standards and technical regulations, there must be a survey on the capacity of conformity assessment services to avoid disruption of goods supply or monopoly and market dominance in service provision. The period of application of standards must be designed to be long enough (from one to several years) to allow parties time to comply.

Technical issues in drafting documents should be addressed through consultation with experts in drafting and legal matters.

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