

The Strategic Transformation of China Standardization

中国标准化的战略转型

By Li Chuntian 李春田



1. The formation of the current standardization working mode

Although the standardization work started early in the period of the Republic of China, large scale development of standards was carried out during the “First Five-Year Plan” period after the establishment of the People’s Republic of China in 1949. At that time, our state-owned large enterprises and industry sections developed and implemented enterprise and industry standards according to the former Soviet Union mode and under the guidance of the former Soviet Union experts. Then government organization was set up for administrating national standardization work and developing national standards; however, it still employed the Soviet Union mode, and some standards of it even directly copied that of the Soviet Union. The socialist countries of that time always held standardization meetings in order to constantly coordinate and unify the standardization approaches adaptive to the planned economy system.

Since the standardization of those days almost sprouted from scratch and the large-scale economic construction was in urgent need of standards, enterprises, industries and nations all targeted speeding standards development and increasing the standards quantity to the

1. 现行标准化工作模式的形成

中国虽然在民国时期就已经开始做了一些标准化工作,但主要还是在1949年中华人民共和国成立后,在第一个五年计划时期才开始大规模的制定标准。当时的国有大企业和工业部门是在苏联专家的指导下,按照苏联的模式制定并实施企业标准和部门标准。后来成立了主管全国标准化工作的政府机构,开始制定国家标准,同样是苏联模式,有些标准就是苏联标准的翻版。当时的社会主义国家之间,还经常召开标准化会议,不断地协调和统一与计划经济体制相适应的标准化方法。

由于当时的标准化几乎是从零起步的,更由于大规模经济建设对标准的迫切需要,企业、部门和国家都把加决制定标准、最大限度地增加标准数量作为工作目标。标准化工作的规划和计划中,首

large. In standardization plans and programs, the preliminary task was to decide the growth goal and the indicator of standards amount. In the work summary of every year, it was the absolute and relative increase of the standards quantity that was prominent in the report. It could not be avoided in the primary stage of an organization or even of a country; we might as well say it is an inevitable process.

For a long time, all standardization organizations have put standards development in the first place and taken the growth in the standards number as the priority of their work and the criterion for evaluating their performance, thus the whole set of working guidelines, policies, rules, regulations and approaches formed in the process as well as people's mind have been integrated into this working mode and reached conformity. These frameworks of thought and approaches incubated a kind of mental set and inertia in everyone's mind gradually; nearly no one considers changing them, while it was hard to be changed, too. Especially for those standardization novices, the previous training of them and the immediate experiences in their work made them take all of this for granted and consider it the track the standardization should orbit. Therefore, despite changes and innovations in standardization made in the past decades, the basic structure of the "development-oriented" mode, with a rather steady working mode, has not been changed at all, its distinctive feature being taking the standards development and the quantity increase as the goal and accumulating standards continuously.

2. Transformation is a historical certainty

The "development-oriented" mode has the advantage of large-scale production of standards. It can provide the urgently-needed standards in short time under the situation of terrible shortage of standards. Every enterprise has taken this path in its early stage, and so has every country in the initial stage of industrialization. It is, as it were, the only way to take. However, the inevitable disadvantage of this working mode is the separation of standards development and implementation and mistaking methods as objectives.

Due to the separation of development and implementation and the standards development-oriented work mode, the standardization resources of the country was mainly put to the development work, and the main work of standardization institutions were developing standards as well, along with the establishment of many standards development units. All standardization professionals of China were included in these institutions, while the standards implementation became the most obvious weak point. The direct consequence was the inapplicability or poor applicability of standards and little benefits, thus little importance was attached to standardization. Useless, backward and rubbish standards came into being, further reducing the scientificity, authority and seriousness of standards.

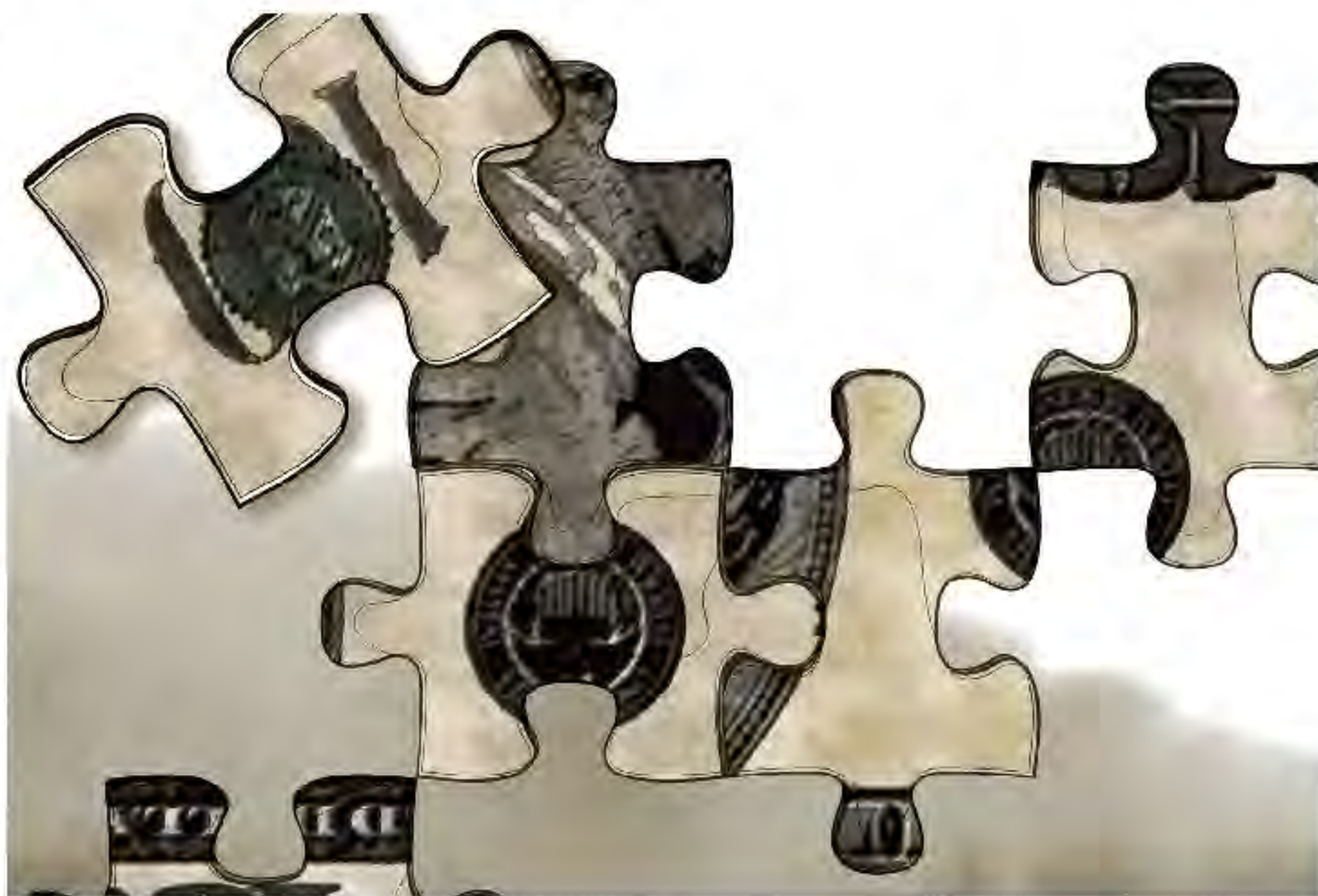
The most severe consequence of mistaking methods as objectives is the alienation from reality. Enterprise standardization was far from the enterprise

要的任务是确立标准数量增长的目标和指标。在每年的工作总结里, 占突出位置的也是标准数量增长的绝对数和相对数。这种现象在每一个组织甚至国家的标准化初级阶段都是不可避免的, 甚至可以说是必经的过程。

由于长期以来, 各级标准化组织一直把制定标准作为首要任务, 把标准数量的增长作为工作的主要目标和衡量业绩的准则, 随之形成的一整套工作的方针、政策、原则、制度和办法, 乃至人们的观念也自然地同这一工作模式互相融合并达到了一致。这些观念和做法渐渐地在人们的头脑中形成一种思维定势, 产生一种惯性, 几乎没有人去想改变它, 就是想改变也很难。尤其是那些新参加标准化工作的人员, 由于他们此前受到的培训和上岗后亲身的体会, 他们甚至认为这是天经地义的, 标准化工作只能这么做。因此, 虽然几十年来标准化也做了不少改进和创新, 但基本格局没有根本性变化, 形成了一种相当稳定的工作模式, 这就是“制标主导型”模式, 它的突出特点就是以制定标准为目的, 以数量增长为目标, 以不断地积累标准为特征。

2. 转型是历史的必然

“制标主导型”模式的优点就是能够大量的生产标准, 在标准极度缺乏的情况下, 能抓紧时间把急需的标准制定出来。这几乎是每一个企业在建立初期都走过的道路, 同样也是每一个国家在工业化初期走过的道路, 这可以说是一条必经之路。这种工作模式不可避免的缺点是标准的制定与实施分离, 把手段当成了目的。



conditions, and national standardization separated from country's actual conditions. Every organization used the same standardization approach to endlessly accumulate standards, to improve standards system and to update standards, giving standardization workers little time considering the urgent needs of enterprises and country. They even did not know why these standards should be developed. Enterprises have their central task in different stages, while enterprise standardization has its own tasks. This situation of separation was very common. Although national standardization has been adjusted consistently to meet the needs of the national economic and technological development, the overall combination could hardly be described as satisfactory. The common way was to accelerate the speed of relevant standards development, which still fell into the development-oriented mode in which development and implementation is separated.

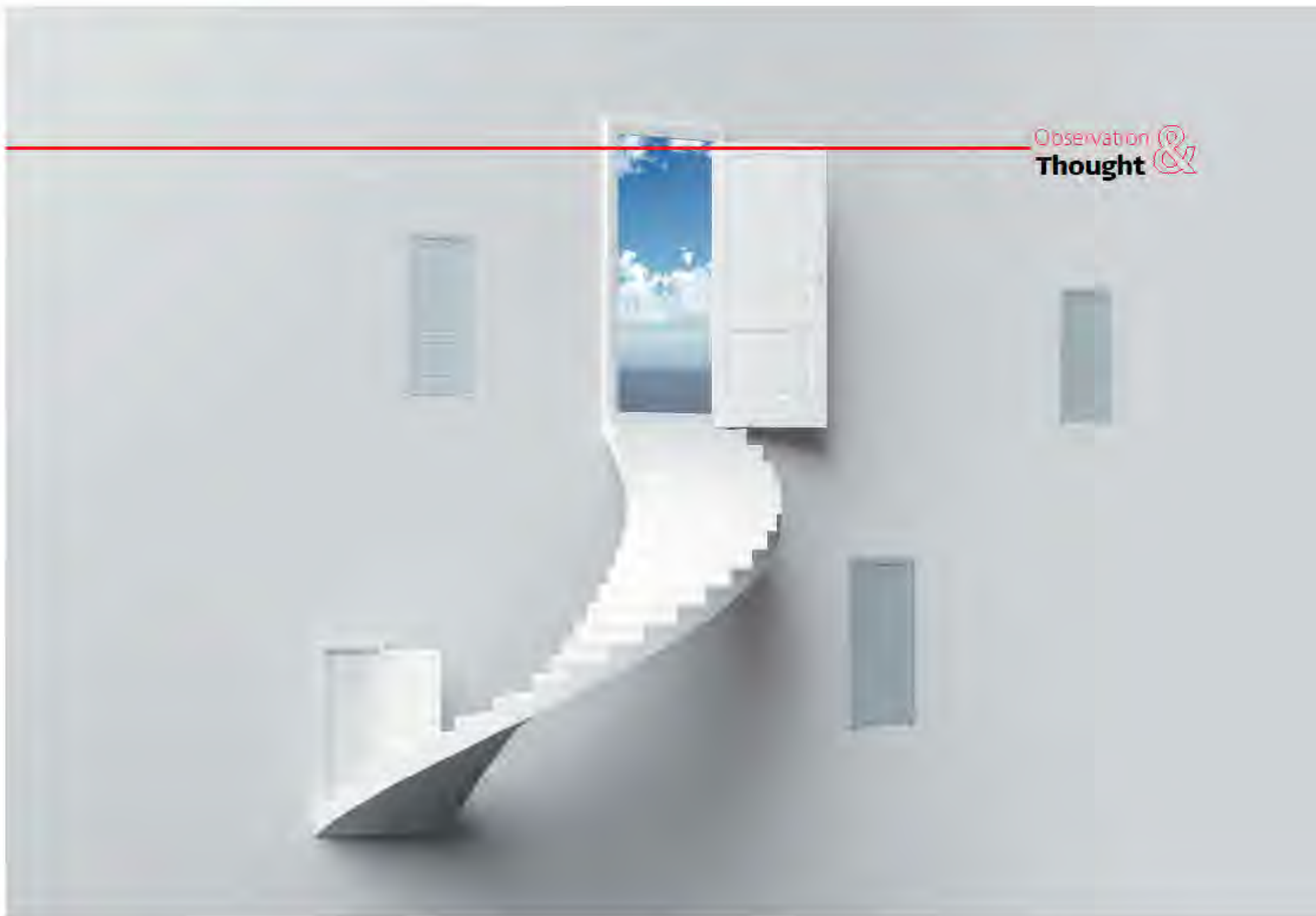
This development-oriented standardization was neither the invention of the former Soviet Union nor the creation of China; almost all countries in the world share this mode. Its history can be traced back to one hundred years ago. During this century, the industrial standardization, along with the development of the large-scale machine industry, has developed a large quantity of interchangeable, reduplicative standards which can ensure product quality, social security and human health, contributing greatly to the scientific progress and social development. However, with the speeding up of scientific progress and the deepening of economic globalization day by day, it lost the foothold with increasing inadaptation. The long-term accumulated standards had no access to the practical implementation owing to its scattered objectives and poor pertinency; the more standards got accumulated, the more they needed to be revised, and it was a tough task to determine which and how to revise; the current high-tech products represent the extensive integration of technologies, requiring the inter-industry, inter-section and inter-disciplinary standards, while our standards-developing bodies were divided clearly by sectors, with strict and firm barriers and obstacles between industries and professions, and lacked badly the horizontal comprehensive standardization; the economic development and the market competition require enterprises to offer the individualized products and services on demand, which however seems quite alien to the traditional standardization operation mode; current market competition has become the one between different industry chains that represent themselves by alliance or benefit community, while we are still guiding the enterprise standardization with the concept of strengthening the internal management, constructing the standards system within walls and fighting for the success alone; standardization organizations in many countries have realized the important role standardization has for



由于制定与实施分离,并且以制定为主导,国家的标准化资源便主要投向标准制定,标准化机构的工作主要是制定标准,而且成立了大量的制标机构。国家的标准化人才几乎都被囊括在这些机构中,标准的实施就成了最为突出的短板。其直接后果就是标准不适用或适用性差,标准化效益不明显,标准化工作不被重视。无用标准、落后标准、垃圾标准的出现,又进一步降低了标准的科学性、权威性和严肃性。

由于把手段当成了目的,其最严重的后果就是脱离实际。企业标准化脱离企业实际,国家标准化脱离国家实际。每一个组织的标准化工作都用同样的方法永无止境地积累标准,永无止境地完善体系和更新标准,使标准化工作者根本没有精力去考虑企业的急需和国家的急需。甚至搞不清楚为什么制定这些标准。企业每个时期都有自己的中心工作,企业标准化却另有自己的中心任务,这种“两张皮”的现象比比皆是。国家一级标准化工作,虽然不断努力与国家经济技术发展的要求相结合,但总是结合的不够理想,通常的做法就是加快制定相关标准,仍然走的是以制标为主导,我制定你实施的路子。

这种以制标为主导的标准化,不是苏联的发明,也不是中国的创造,世界各国大都如此。它的历史可以追溯到一百年前。在这一百年间工业标准化伴随大机器工业的发展制定了大量的保证互换性的标准、大批量重复生产的标准、保证产品质量的标准以及保证社会安全和人民健康的标准,为科技进步和社会发展立下了汗马功劳。但是,随着科技进步的速度日趋加快,经济发展的全球化程度日益加深,它渐渐地失去了优势,并且显现出越来越多的不适应。长期积累的标准由于目标分散、针对性差,到了实际应用时常常不能适用;标准积累的越多,需要修订的标准数量越大,但又很难搞清楚哪些标准该修订和如何修订;现今的高科技产品呈现出技术高度综合化的特点,要求跨行业、跨部门、跨专业、跨学科的综合标准,然而我们的制标机构却是条块分割、行业和专业之间壁垒森严、高墙林立,极为缺乏的恰是横向综合的标准化;经济的发展和市场竞争,要求企业提供个性化的产品和服务,并且做到按需即供,但这如同传统的标准化运作方式格格不入;当今的市场竞争已经是结成联盟或利益共同体的产业链之间的竞争,然而我们却仍然停留在加强企业内部管理、建立围墙内的标准体系,靠单打独斗取胜的理念指导企业标准化工作;许多国家的标准化组织都已经意识到,标准化对事关国家重大经济利益的战略性新兴产业创新发展的作用,开始抢占制高点,但是,以积累标准为已任的标准化不会也不知道如何同这些产业深度融合并引领这些产业去抢占制高点。种种迹象表明,



the innovative development of the strategic emerging industries, which poses great impact on the significant economic benefits of a country. They have been racing for controlling a commanding height. Nonetheless, the standardization taking standards accumulation as its primary task will not and do not know how to integrate with these industries in depth, or how to lead them competing for the fortress. All signs point to the necessity for us to reform and transform this standardization mode.

3. The mark of the transformation

The National Standardization Working Conference of 2012 held in Beijing is a meeting symbolizing the transformation. We define it so on the basis of the following aspects:

a) The principle of “commanding the standardization work with strategic mind and systematic thinking” proposed in the meeting is a breakthrough of standardization management ideas based on the profound understanding of modern standardization features and rules. As SAC Administrator Chen Gang stated, “The strategic and systematic natures are the most outstanding characteristics of standardization, and the strategic mind and systematic thinking is the scientific world view and methodology which analyses the problems from a macro perspective and address the complicated problems as a whole. It has crucial theoretical and practical value for promoting the scientific development of standardization cause”. The guidance of the scientific theories can not only provide theoretical basis for the transformation and fix a correct direction, but also lead standardization workers all over the country to try their best jointly towards a common target.

b) The principle of “systematic management, breakthroughs in key areas, overall improvement” decided in the conference is the standardization working guideline under

这种标准化发展模式确实到了该发生变革、转型的时候了。

3. 转型的标志

2012年在北京召开的全国标准化工作会议，就是这样的一次转型的会议。之所以认定这次会议是一次转型会议，是基于以下几点：

1、会上提出的“用战略思维和系统思想来统领标准化工作”，这是在对现代标准化的特点和规律深刻认识的基础上，标准化管理理念的突破。如陈钢所说：“战略性和系统性是标准化十分突出的特征，而战略思维与系统思想就是从宏观全局分析问题、从整体上解决复杂问题的科学的世界观和方法论，对推动标准化事业科学发展具有重要的理论和实践价值”。有了科学理论的指导，不仅为转型提供了理论依据、指明转型的正确方向，而且能指引全国标准化工作者朝着一个坚定的目标团结一致地努力奋斗。

2、会议确立的“系统管理、重点突破、整体提升”的12字原则，就是在“战略思维”和“系统思想”指导下确立的标准化工作方针。只有坚持“系统管理”，从系统整体利益出发考虑问题，才能最终打破条块分割的体制上的弊端，实现有效的宏观管理；只有坚持“重点突破”的原则，才能紧密围绕经济社会发展的重大需求和重大任务；“整体提升”

the guidance of the “strategic mind” and “systematic thinking”. Only by sticking to “systematic management” and considering problems for overall benefits of the system, can we break down the structural shortcomings of sector barriers and realize the effective macro management; only by sticking to the goal of “breakthroughs in key areas” can our work be focused on meeting the key requirements and important tasks of economic and social development; “overall improvement” means the optimization of the standardization system itself, which is also the foundation for reaching “systematic management” and “breakthroughs in key areas”. These three parts make up a complete system, and the operation target of this system is to “push forward standardization and make it more effectively serve the scientific development”.

c) The key projects proposed in the “12th Five-Year Plan” for national economic and scientific development are the objective needs of the standardization transformation and powerful impetus for it as well. The “12th Five-Year Plan” for national standardization is the top-level design for implementing the “12th Five-Year Plan” for national economic and scientific development.

d) It is also suggested in the conference that we should take comprehensive standardization as “the top priority of our work for this year and the days to come”, establishing transformation methods and approaches. Many key projects in the “12th Five-Year Plan” can be conducted with comprehensive standardization approaches.

e) The comprehensive standardization trial tasks, researches tasks stated in the “12th Five-Year Plan” for standardization and determined after the conference, and a series of organizational work for boosting comprehensive standardization.

All these indicate that fully preparation of necessary and sufficient conditions has been made for the transformation, and the strategic standardization transformation has been initiated as well. Its goal is to facilitate the transformation of Chinese standardization working mode from “development-oriented” to “implementation-oriented”.

4. The connotation and significance of the transformation

Transformation means the change in development mode and working mode. It is a fundamental and wide-ranging reform, which necessarily requires the mind shift and the great change in management and working methods.

则是标准化自身系统的优化,它是实现“系统管理”和“重点突破”的基础。这12个字构成了一个完整的系统,这个系统的运行目标就是“推动标准化更加有效地服务科学发展”。

3、国家经济和科技发展的“十二五”规划中提出的重大关键项目,就是对标准化转型的客观需求,是转型的强大推动力。国家标准化“十二五”规划,是贯彻落实国家经济技术发展“十二五”规划的顶层设计。

4、这次会上提出的,要把综合标准化“作为今年和今后一个时期工作的重中之重”,这是确立了转型的方法和途径。“十二五”规划中的许多重大关键项目都是可以采用综合标准化的方法来实施的。

5、在标准化“十二五”规划中以及会后确定的综合标准化试点任务、研究任务和推进综合标准化的一系列组织工作的抓紧进行。

所有这一切,都标志着转型的必要而充分的条件已经具备,具有战略意义的标准化转型已经启动。它的目标就是指引中国的标准化工作模式由“制标主导型”向“应用主导型”转变。

4. 转型的内涵及其意义

转型就是转变发展方式和工作模式,是一次涉及面较广的根本性变革,必将要求观念的转变和管理方法、工作方法的重大改变。

4.1 标准化观念的转变

观念的转变是根本的转变,标准化工作转型的重要内涵是以下三个基本观念的确立:

(1) 战略系统观——以战略思维和系统理论为指导,建立标准化的战略目标、系统管理理论和管理方法,引领标准化走上科学发展的道路,在标准化工作中全面落实科学发展观。

(2) 实践观——“应用主导型”的工作模式,坚持一切从实际出发的观点,树立彻底的实践观念,标准应用于实践、为实践服务,在实践中经受考验,并且在实践中求发展。

(3) 价值观——标准化要真正解决问题,要能为企业、为社会创造价值。

4.2 标准化管理方法和工作模式的转变

(1) 标准化计划方法的改变——以往的那种以制定标准为主导的工作模式的突出特点就表现在标准化的计划方法上。计划工作的主导思想就是完成标准的制定任务,虽然也考虑客观需要和轻重缓急,但由于采取的是自下而上的申报和兼顾各方的零散课题的汇总,这种方法本身就决定了它不可能集中资源解决关键性问题。“应用主导型”的计划工作要以项目为对象,以满足项目要求为目标,由许多





4.1 The change of the standardization concept

The thoughts change is the fundamental transformation, and the important connotation of the standardization transformation is the establishment of the following three basic viewpoints:

a) Strategic and systematic concept—to set up strategic target, systematic management theories and approaches of standardization guided by the strategic mind and systematic theory, directing standardization to the scientific development road and implementing comprehensively the scientific outlook on development.

b) Concept of practice—the “application-oriented” working mode promotes the idea of being practical and realistic and establishing a complete practical conception, meaning to make standards applied in and serve the practice, stand the test of practice and pursue development in practice.

c) Values—standardization should solve real problems and create benefits for enterprises and society.

4.2 The transformation of standardization management approaches and working mode

a) The change in the standardization planning—the development-oriented working mode in the past was distinctive in its standardization planning way. The leading thought of planning was to finish the development task of standards. Although objective needs and order of priority were also taken into consideration, the characteristics of bottom-up implementation and the gathering of the scattered topics from all parties of this working mode made it impossible to concentrate all sources on solving key problems. The “implementation-oriented” planning aims at the projects and meeting their needs, and requires many units to develop inter-compatible standards set in the limited time, for which the tremendous change in the planning method is inevitable. We have to shift from

units in a limited time to formulate mutually coordinated sets of standards, this necessarily requires a major change in the planning method. It must change from the traditional bottom-up method of gathering scattered topics to a top-down systematic design and overall coordination, and must apply methods including operations research, especially planning review technology and other scientific methods.

(2) Standard formulation and coordination method change—previous standards were formulated in a fragmented manner, with individual coordination. The specifications of standard content had a certain arbitrariness, and performance parameter indicators were generally the higher the better. The content of coordination was mainly to consider that it does not repeat or contradict the upper level and related standards. When formulating standards for major key issues using the comprehensive standardization method, it is necessary to have a comprehensive plan for all standards, coordinate them, and complete them simultaneously to ensure that all standards revolve around and ensure the realization of the overall goal and the overall benefit is the best. This is a task of enormous workload and difficulty. Relying only on hard work is not enough; scientific methods must be applied or developed, such as parameter optimization methods.

(3) Standardization organization and management system change—previously, standardization technical committees were established based on the principle of division of labor, and their development trend was to become more and more specialized. This is beneficial to the deepening of research, but it is not beneficial to the overall integration. Especially the strict definition and detailed division of labor among technical committees is more detrimental to the coordination across specialties. This system is contrary to the trend of comprehensive development of science and technology. After the transformation, it is possible to form a “specialized basis on the overall and overall guidance under the specialized combination” system. Every standardization expert, who participates in the research and development of professional standards, also participates in the cross-industry, cross-specialty horizontal comprehensive standardization activities. This system is the most vibrant, and it is not only beneficial to

the original bottom-up method of gathering scattered topics to the top-down systematic designing and overall coordination, along with many scientific approaches including the operational researches and the program evaluation and reviewing techniques in particular.

b) The change in standards development and coordination methods—in the past, standards were developed separately and coordinated individually, and the standards content was regulated at will. The higher the performance parameter index was, the better a standard would be, and the coordination work mainly pursued the un-repeatability and the conformity with upper and related standards. When employing comprehensive standardization working mode in the standards development of key problems, we have to give overall planning to all standards and make them correlated with each other; also, we should complete all of them at the same time and coordinate them comprehensively, in order to ensure that all standards center on the realization of overall objective and the best overall benefits. It is the organization and management task of large workload and tremendous difficulty, which we are unable to accomplish only with hard working. We must use or explore the scientific methods such as parameter optimizing.

c) The change in the organization and management system of the standards developing institutions—the technical committee for standardization which takes developing standards as its duty is constructed according to the professional division. Its trend is the increasing degree of accuracy and miscellaneousness in division. Although it helps the furthering of researches, it brings in obstacles for the system integration. Especially the strict barrier and detailed division make the collaboration of different disciplines hard to be realized. This system runs counter to the comprehensive development of science and technology. After the transformation, we may embrace the system affording the “combination of

各专业之间的信息沟通,并能形成一种充分发挥人的才能和积极性的机制,从而找到一条培养能够应对复杂系统的高素质人才的道路。

(4) 标准化工作采取“点面结合”的工作方法——传统标准化抓的是面上的工作,通过制定基础标准和通用标准,解决了面上的需求,为本组织的有序管理打下基础,这对任何一个组织都是绝对必要的。

综合标准化抓的是点上的工作,是本组织发展过程中的重点、难点和关键点。这些点常常事关重大,有时会制约组织的发展,有时可能危及到组织的生存。一个组织常常由于关键难题的突破,带来长远的发展;一个国家也一样,战略性新兴产业中的重点产品开发成功,不仅会出现一批企业群而且有可能出现一个新产业。面上的工作为点上的工作打基础,点上的突破会带动整个面上工作的提高。“点面结合,以点带面”的工作方法必将使标准化工作充满活力。这就是“重点突破,整体提升”的内在机制。

转型不是否定传统标准化,而是在传统标准化的基础上开展综合标准化,并且把二者很好的结合起来,建立起一种新型的标准化工作机制。

(5) 使标准化工作走上与国家经济技术发展深



profession-based integration and integration-guided profession". Every standardization expert participates in not only the professional researches but also the inter-disciplinary and inter-professional horizontal comprehensive standardization. This system is the most energetic, as it can both boost the inter-professional information communication and form a mechanism bringing the personnel's talent and initiative to full play, thus discovering a road for cultivating the high-quality professionals who can handle the complicated system.

d) The working method of "combination of spot work with surface work" in standardization—the traditional standardization mainly deals with the surface work and tries to meet the surface needs by developing basic and universal standards, laying the foundation for the orderly management of the organization. It is absolutely necessary for any organization.

The comprehensive standardization is specific to the "spot" and to key points and difficulties. These spots always play a crucial role; sometimes, they may even fetter the development or threaten the survival of the organization. In many cases, the breakthrough in key problems brings forth the long-term development of an organization; similarly, successful development of key products in strategic emerging industries of a country can not only bring about relevant enterprises cluster but also a new industry possibly. The surface work lays the foundation for the specific spot work, while the breakthroughs of spot work can promote surface work as a whole. The "combine spots with surface work, drive surface work by spot" concept is bound to energize the standardization work. That is the intrinsic mechanism of "key breakthroughs and overall improvement".

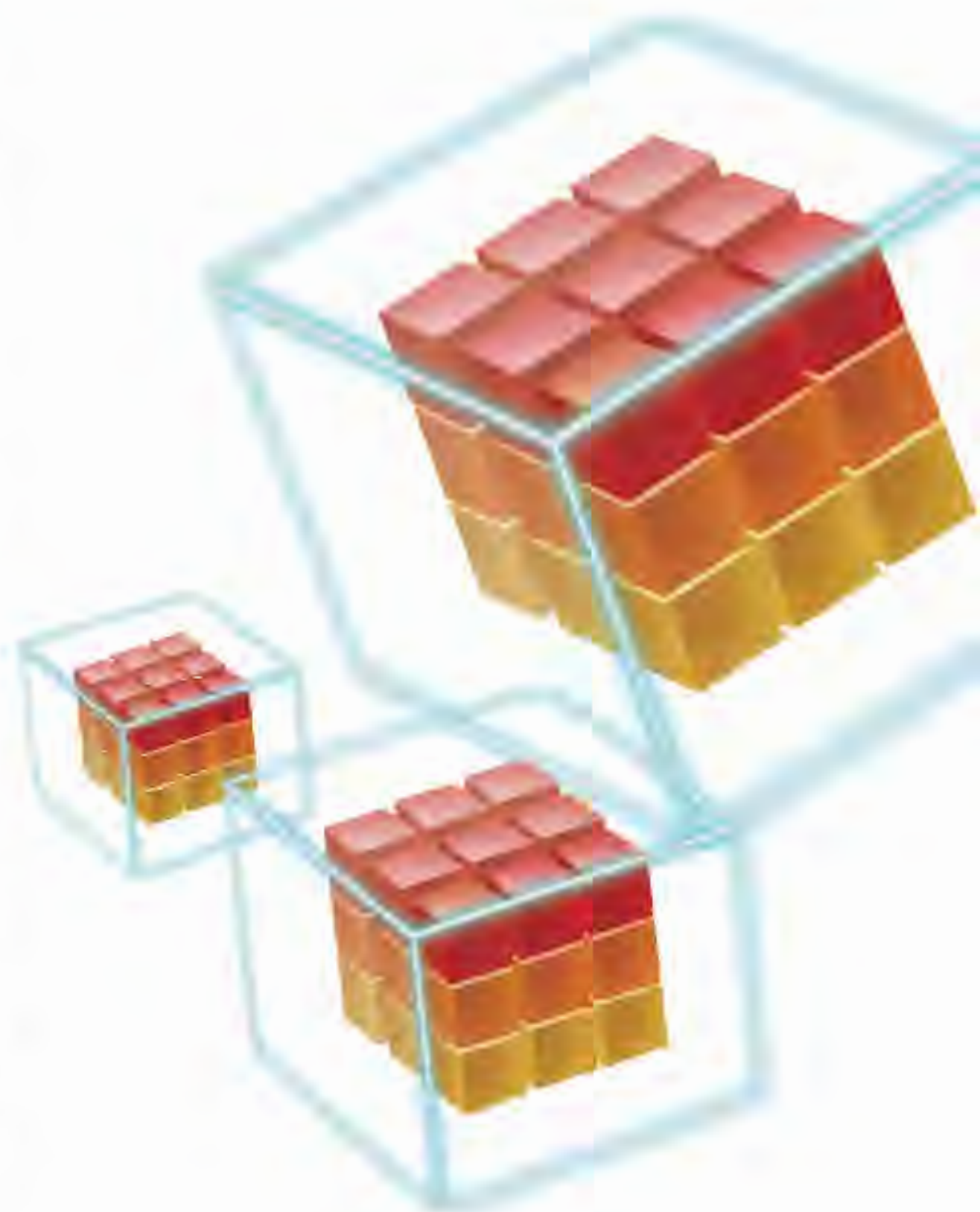
Transformation is not the denial of traditional standardization, but rather the comprehensive standardization on the basis of traditional standardization. It is a combination of the two modes to construct a new working mode of standardization.

e) Advance the profound integration of standardization work and national economic and technological development

In the working mode of "I develop standards and you implement them", our standardization work is not necessarily neglecting of national economic and technological development; we also highlight the integration and services, and the common way to take is imminently develop a batch of standards or design a standards system, and conduct a series of pilot work, which sometimes works effectively. However, the "implementation-oriented" comprehensive standardization is by no means simple "combination", but "profound integration" instead.

The so-called "profound integration" here means that the standardization work should not only address key projects pertinent to the significant national economic benefits and strategic tasks related to the scientific progress, but also participate in these projects and tasks, playing a key role. The specific approach is: when a project (the standardization objective) was decided, we have to determine the concrete target and problems to be solved; and then, we clarify relevant elements and their mutual relationship via systematic analysis; on this basis, we are to divide the target and define the sub-targets and specific requirements of all relevant elements—according to which standards get developed separately; standards, after overall coordination, form the standards complex (the standards set) for guaranteeing the realization of the overall goal; finally we implement and conduct this "made-to-measure" standards complex and realize the expected goal of the project. Only to this depth integrating the key projects with conducting the standardization work can we bring the "leading" role of standardization into full play, which is the goal of transformation.

Strategic transformation of standardization is exactly the reform of standardization development mode. Besides exploring a sustainable development way for standardization itself, it also necessarily plays a vital role in the transformation of both enterprises and national economic growth mode. ■



深度融合的道路

在“我定标准你执行”的工作模式下, 标准化工作也并不是对国家经济技术发展漠不关心, 也强调结合、强调服务, 通常的做法就是抓紧制定一批相关标准或者设计一个标准体系、搞一批试点, 有时也能起到很好的作用。但是, “应用主导型”的综合标准化, 绝不是一般的“结合”, 而是“深度融合”。

所谓“深度融合”, 就是标准化工作不仅面向事关国家重大经济利益的关键项目和科技进步的战略总课题, 而且参与到这些项目和课题之中, 发挥关键性作用。具体做法是: 当项目(标准化对象)明确之后, 须确定具体目标和要解决的具体问题; 然后通过系统分析明确与问题相关的要素以及要素之间的关系; 在此基础上进行目标分解, 明确各相关要素承担的分目标和具体要求, 并依此分别制定标准; 标准经过整体协调形成确保总目标实现的标准综合体(成套标准); 贯彻实施这个“量身定制”的标准综合体, 确保实现项目的预订目标。标准化工作只有与重大关键项目的实施融合到这样的深度, 才能把标准化的“引领”作用非常突出的发挥出来, 这就是转型要达到的目的。

标准化战略转型就是转变标准化的发展方式, 它不仅为标准化自身的可持续发展开创了一条道路, 而且必能对企业转型和国家经济增长方式的转变发挥重要作用。 ■