



**Asia-Pacific
Economic Cooperation**

2018/SCSC/WKSP1/013b

Session: Panel 3

Annex B – Career Path/Map Cases: Standards Professionals Working for Company

Submitted by: Korea

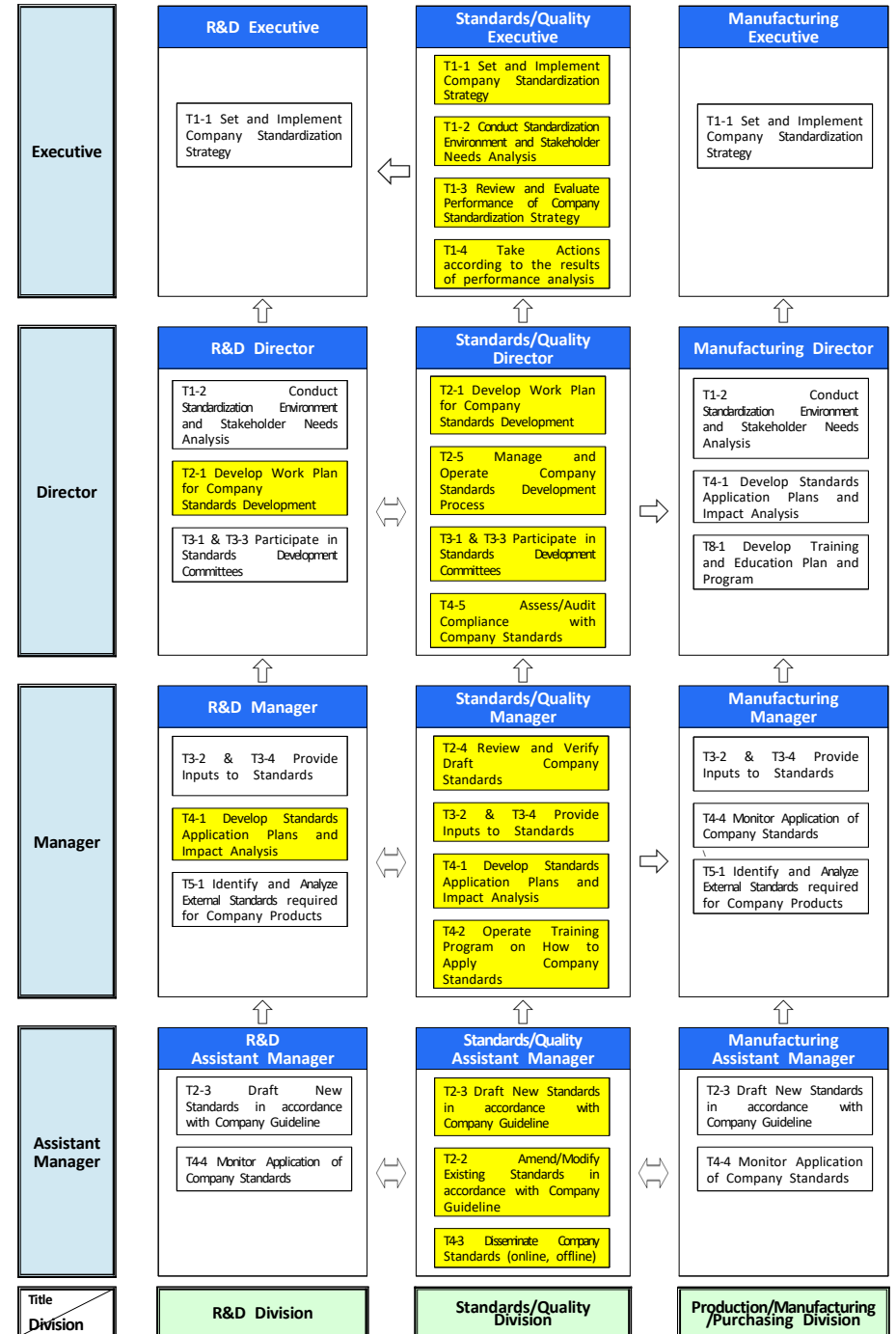


**APEC-IEC-ISO Joint Workshop on
Developing Competence Requirements
and Career Path for Standards
Professionals
Singapore
23-24 January 2018**

I. Career Path/Map Cases

- Standards Professionals Working for Company

1. Personal Career Path Story-telling



1.1 (Personal Tasks for Company) Assistant Manager Level (1-7 years)

Division	Detailed Sub-task	Details of Sub-tasks Carried out in Person
Standards /Quality	Important turning point	<ul style="list-style-type: none"> ● My field capabilities and sincerity in the relevant field were recognized (selected as a person to be fostered in standardization). <ul style="list-style-type: none"> - Work performance assessment: Average score of "A" or higher / Selection of desired field - My company developed and applied standard testing methods in the core field for the first time in the domestic industry.
	T2-2 Amend/Modify Existing Standards in accordance with Company Guideline	<ul style="list-style-type: none"> ● I went on long-term dispatched training in advanced standard/standardization institutions, and acquired standards assessment techniques. <ul style="list-style-type: none"> - Technical training in GE and FDA (the USA), as well as JQA, Panasonic, and Toyota (Japan). - Long-term dispatched technical training in UL (USA), CAS (Canada), TUV (Germany), BSE (the UK), SEMKO (Sweden), DEMKO (Denmark), and NEMKO (Norway). ● By benchmarking functionality/performance of new products, I carried out field work for amending company criteria/standards relating to areas where improvement and assessment of development processes had been unsatisfactory. ● I established improvement methods through making project activities for improving quality issues raised by consumers' claims after product launching, and carried out activities for amending company standards relating to development of detection testing methods, etc. ● I carried out work for enacting/amending company standards in accordance with the ISO 9000 system.
	T2-3 Draft New Standards in accordance with Company Guideline	<ul style="list-style-type: none"> ● I created company standards drafts based on the analysis of the major functionality/performance levels of the products newly launched by the major competitors in the relevant sales region, and on the analysis of the requirements from the standards/regulatory bodies (participated in short-term field work in a task force). ● Based on the result of the analysis of the trends in absolute quality (global specifications, regulations, and PL), when it was necessary to newly develop and enact company technical standards, I developed and enacted standards relating to the relevant field through participating in projects for improving company standards/quality. <ul style="list-style-type: none"> - I developed criteria for absolute quality in the development stage of major products.
	T4-3 Disseminate Company Standards (online, offline)	<ul style="list-style-type: none"> ● I provided training for working-level personnel of the relevant departments on the amendments of company standards. <ul style="list-style-type: none"> - I provided training for standards/quality personnel of parts vendors on the contents of new company standards, and carried out diagnosis.

1.2 (Personal Tasks for Company) Manager Level (7-15 years)

Division	Detailed Sub-task	Details of Sub-tasks Carried out in Person
R&D	T4-1 Establish plans for applying standards, and assess impacts.	<ul style="list-style-type: none"> ● Based on a TRM (Technical Road Map)/PRM (Product Road Map), I established and reported methods for making optimal improvement of core technical standards. ● Based on the result of the analysis of the trends in technologies and strategies of my company, when it was necessary to newly develop and enact company technical standards, I participated in field work for improving the relevant company technical standards, and developed/enacted standards relating to the relevant field. <ul style="list-style-type: none"> - I developed technical criteria/standards in the development stage of major products.
Standards /Quality	Important turning point	<ul style="list-style-type: none"> ● I implemented projects for enacting/amending company standards (selected as a candidate for the department head). <ul style="list-style-type: none"> - Assessment of quantitative effects of the deliverables: Score of "A" or higher. - I won grand prizes and top prizes in internal competitions of company standardization. ※ Implementation/assessment results of projects for job improvement for a minimum of 3 years: Score of "A" or higher. → I was selected as a person requiring retention in core fields (upper 5%).
	T2-4 Review and Verify Draft Company Standards	<ul style="list-style-type: none"> ● I monitored changes in international standards and de facto standards, and reported methods for improving standards. ● I worked as the leader of a project relating to creation of company standards drafts based on the analysis of the major functionality/performance levels of the products newly launched by the major competitors in the relevant strategic region, and on the analysis of the requirements from the standards/regulatory bodies. <ul style="list-style-type: none"> - I analyzed the current level of company standards drafts, and derived/verified their weak points.
	T3-2 & T3-4 Provide Inputs to Standards	<ul style="list-style-type: none"> ● I established a plan for improving standards by means of external consulting or benchmarking of advanced companies in the relevant industry. ● When national standards were enacted/amended, if it was necessary to provide R&D test results of my company relating to the criteria for optimization and standardization from the viewpoint of the relevant industry, I prepared documents for presenting opinions on amendments. ● When American regulations or codes relating to electric/electronic products were amended, I prepared R&D review results of my company relating to the necessary categories, and presented opinions on standardization from the viewpoint of a working-level personnel.
	T4-1 Develop Standards Application Plans and Impact Analysis	<ul style="list-style-type: none"> ● I established and reported methods for making optimal improvement of standards. ● Based on the result of the analysis of the trends in absolute quality (global specifications, regulations, and PL), when it was necessary to newly develop and enact company technical standards, I developed and enacted standards relating to the relevant field through participating in projects for improving company standards/quality. <ul style="list-style-type: none"> - I developed criteria for assessing designing and testing of absolute quality in the development stage of major products.
	T4-2 Operate Training Program on How to Apply Company Standards	<ul style="list-style-type: none"> ● I implemented a project for establishing company standards IT system, and regularly provided operating technical assistance for education/training programs. <ul style="list-style-type: none"> - In association with the department supervising internal education/training, I trained personnel from the relevant departments with regular annual education/training programs.

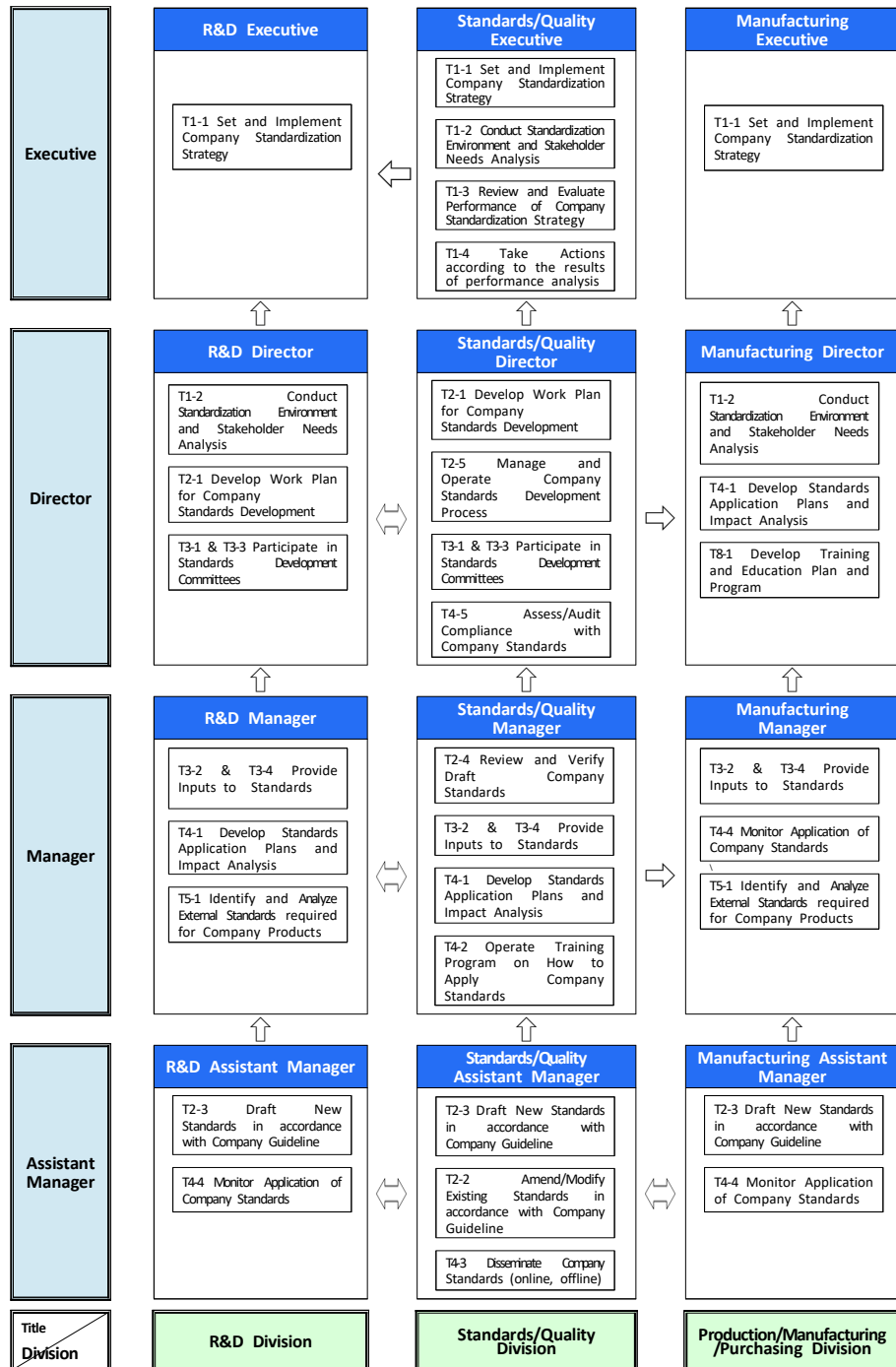
1.3 (Personal Tasks for Company) Director Level (15-25 years)

Division	Detailed Sub-task	Details of Sub-tasks Carried out in Person
R&D	T2-1 Establish action plans for developing company standards.	<ul style="list-style-type: none"> Based on a TRM (Technical Road Map)/PRM (Product Road Map), in a project for establishing strategies for developing company technical standards of market-leading products and products of new businesses, I worked as the project leader.
Standards /Quality	Important turning point	<ul style="list-style-type: none"> I was selected as an internal technical platform master (registered in the core manpower pool, over 3 years). <ul style="list-style-type: none"> I provided growth opportunities for experts in company standardization (executives). I instructed department heads in training courses for company standards. ※ Selection of technical platform masters: 1% (1 - 2 persons in each field)
	T2-1 Develop Work Plan for Company Standards Development	<ul style="list-style-type: none"> In a project for establishing strategies for developing company standards of market-leading products and products of new businesses, I worked as the project leader.
	T2-5 Manage and Operate Company Standards Development Process	<ul style="list-style-type: none"> Through regular benchmarking of the standards development processes of major advanced companies, I established and implemented a plan for optimal management of standard development processes. (I analyzed/improved the current status through internal diagnosis and diagnosis by external consulting companies.)
	T3-1 & T3-3 Participate in Standards Development Committees	<ul style="list-style-type: none"> I participated in domestic/international standards development committees, and de facto standards development committees of the relevant industries in the domestic strategic sales region, and presented opinions. <ul style="list-style-type: none"> As the standardization representative of my company, I participated in meetings held by the Korean Agency for Technology and Standards, and certification bodies discussing amendments of KS standards, and the Electrical Appliances and Consumer Products Safety Control Act, and presented opinions. I participated in the standards development committees of the relevant industries, such as the AHAM (Association of Home Appliance Manufacturers), and the CTIA (Cellular Telecommunications Industry Association) of the USA.
	T4-5 Assess/Audit Compliance with Company Standards	<ul style="list-style-type: none"> I conducted regular field audits and diagnoses of the operating status of company standards. <ul style="list-style-type: none"> Through regular audits of the relevant departments, I identified the implementation achievement levels of company standards, and provided technical advice to the management team based on the audit results.

1.4 (Personal Tasks for Company) Executive Level (over 25 years)

Division	Detailed Sub-task	Details of Sub-tasks Carried out in Person
Standards /Quality	Important turning point	<ul style="list-style-type: none"> I assessed the quantitative contribution ratios of the management performance of the standardization-related projects under my supervision (1 time/year). <ul style="list-style-type: none"> Department heads were retained depending on the result of the assessment of the quantitative contribution ratios of the management performance. (The performance assessment was made on the departments benefitting from performance, and the related departments.)
	T1-1 Set and Implement Company Standardization Strategy	<ul style="list-style-type: none"> By means of collaboration with external advanced consulting companies relating to strategic business groups, in establishing Y+3 strategic needs and road map for company standardization, I provided technical advice on standardization of the relevant field. <ul style="list-style-type: none"> In line with Industry 4.0, and in overall consideration of the market ripple effects, urgency, and influence on the other fields, I established a strategic road map for developing company standards. (I provided technical advice on standardization of the strategic tasks of the group.) Based on the standardization trends in international standards, and de facto standards of the countries to which my company sells products (e.g., the AHAM and the CTIA of the USA), I established and implemented Y+3 strategies for company standardization.
	T1-2 Conduct Standardization Environment and Stakeholder Needs Analysis (the PEST analysis, technical trends analysis, and needs analysis)	<ul style="list-style-type: none"> By means of collaboration with external advanced consulting companies relating to strategic business groups, in establishing Y+3 strategic needs and road map for company standardization, I provided technical advice on standardization of the relevant field.
	T1-3 Review and Evaluate Performance of Standardization Strategy	<ul style="list-style-type: none"> I established Y+3 internal company standardization strategies; assessed quantitative implementation achievement levels of the relevant departments, including R&D, quality, and production departments; and reported the assessment result during management review meetings. (external consulting for standardization technologies relating to strategic planning projects). Based on the standardization trends in international standards, and de facto standards of the countries to which my company sells products (e.g., the AHAM and the CTIA of the USA), I established and implemented Y+3 strategies for company standardization.
	T1-4 Take Actions according to the results of performance analysis	<ul style="list-style-type: none"> I established plans for improving the weak points of the relevant departments found during the performance analysis; monitored the progress of improvement by department; and carried out follow-up actions.

2. Standardization Tasks of Company



2.1 (General Tasks for Company) Assistant Manager Level (1-7 years)

Division	Sub-task	Details (or examples) of sub-tasks
R&D	T2-3 Draft New Standards in accordance with Company Guideline	<ul style="list-style-type: none"> Manage core technical projects in accordance with global technical trends and TRM (Technical Road Map) of the relevant field, and create standards drafts based on the deliverables.
	T4-4 Monitor Application of Company Standards	<ul style="list-style-type: none"> Manage progress with regard to objectives of the technical projects in the relevant field, and apply/monitor the applications of company standards.
Standards/Quality	(Turning Point)	<ul style="list-style-type: none"> It is necessary to objectively recognize field capabilities in the relevant job. <ul style="list-style-type: none"> 3-year performance assessment: Score of "B" or higher, Foreign language: Medium or higher level Participation in standardization-related improvement projects: 1 time/year Training/certificate acquisition for carrying out the relevant job: Compulsory requirements
	T2-2 Amend/Modify Existing Standards in accordance with Company Guideline	<ul style="list-style-type: none"> Carry out field work for amending existing standards in accordance with the core strategies of the pertaining year. <ul style="list-style-type: none"> Performance assessment: Score of "B" or higher in terms of achieving objectives of quantitative deliverables.
	T2-3 Draft New Standards in accordance with Company Guideline	<ul style="list-style-type: none"> Carry out field work of projects relating to company standards for the pertaining year or for the mid/long term. <ul style="list-style-type: none"> Performance assessment: Score of "B" or higher in terms of achieving objectives of quantitative deliverables.
	T4-3 Disseminate Company Standards (online, offline)	<ul style="list-style-type: none"> Hold meetings for sharing enactment/amendment deliverables of company standards with the relevant departments. <ul style="list-style-type: none"> As necessary, monitor effects before/after standards improvement.
Production/Manufacturing/Purchasing	T2-3 Draft New Standards in accordance with Company Guideline	<ul style="list-style-type: none"> Participate in projects for internalizing core production/purchasing techniques for improving productivity of the relevant field, and create standards drafts which will apply to the relevant departments.
	T4-4 Monitor Application of Company Standards	<ul style="list-style-type: none"> Analyze enactments/amendments of company standards in the relevant field, and monitor the improvement effects after the actual application.

2.2 (General Tasks for Company) Manager Level (7-15 years)

Division	Sub-task	Details (or examples) of sub-tasks
R&D	T3-2 & T3-4 Provide Inputs to Standards	<ul style="list-style-type: none"> In accordance with TRM (Technical Road Map) and PRM (Product Road Map), develop and provide inputs for standards development in the relevant field.
	T4-1 Develop Standards Application Plans and Impact Analysis	<ul style="list-style-type: none"> Based on a TRM (Technical Road Map)/PRM (Product Road Map), Establish a plan for applying the deliverables of the projects in the relevant technical fields to standards; carry out field assessment of the effects after improvement; and analyze/assess the impacts of risks at the time when the technical standards are applied, as necessary.
	T5-1 Identify and Analyze External Standards required for Company Products	<ul style="list-style-type: none"> Identify and analyze external standards applicable to the company by means of regular agreements or consulting with external bodies specializing in standards searching.

Standards/ Quality	(Turning Point)	<ul style="list-style-type: none"> It is necessary to carry out projects for improving standardization and to conduct performance assessment in the relevant job. <ul style="list-style-type: none"> 3-year performance assessment: B average score or higher, Foreign language: Medium or higher level Participation in important standardization-related improvement projects: 2 cases or more (experience in success cases) Training/certificate acquisition for carrying out the relevant job: Compulsory requirements
	T2-4 Review and Verify Draft Company Standards	<ul style="list-style-type: none"> By means of collaboration with external consulting bodies, or analysis of trends in major standardization institutions, review company standards drafts, identify improvement opportunities, and present methods for verifying improvement.
	T3-2 & T3-4 Provide Inputs to Standards	<ul style="list-style-type: none"> Develop and provide inputs for standards development in the relevant field to meet the objectives of the company.
	T4-1 Develop Standards Application Plans and Impact Analysis	<ul style="list-style-type: none"> Establish a plan for applying the deliverables of the projects in the relevant job scope to standards, and carry out field assessment of the effects after improvement.
	T4-2 Operate Training Program on How to Apply Company Standards	<ul style="list-style-type: none"> Provide education/training on how to apply company standards in the relevant field, or provide technical assistance in collaboration with the department in charge of education/training.
Production /Manufacturing/ Purchasing	T3-2 & T3-4 Provide Inputs to Standards	<ul style="list-style-type: none"> Production/Develop and provide inputs for standards development in the relevant field, in accordance with the short-term or mid/long-term objectives of the company relating to purchasing.
	T4-4 Monitor Application of Company Standards	<ul style="list-style-type: none"> Monitor the result of the application of the improved company standards relating to projects for improving processes of production/purchasing, and conduct impact analysis.
	T5-1 Identify and Analyze External Standards required for Company Products	<ul style="list-style-type: none"> Identify and analyze external standards applicable to the company by means of regular agreements or consulting with external bodies specializing in standards searching relating to production/purchasing.

2.3 (General Tasks for Company) Director Level (15-25 years)

Division	Sub-task	Details (or examples) of sub-tasks
R&D	T1-2 Conduct Standardization Environment and Stakeholder Needs Analysis	<ul style="list-style-type: none"> By means of agreements with domestic/international institutions specializing in analysis, and external consulting, analyze environments of standardization and needs of stakeholders at regular intervals.
	T2-1 Develop Work Plan for Company Standards Development	<ul style="list-style-type: none"> Establish action plans for managing core technical projects in accordance with global technical trends and TRM (Technical Road Map) of the relevant field. (Play the role of a project leader in person depending on ripple effects, importance, and urgency.)
	T3-1 & T3-3 Participate in Standards Development Committees	<ul style="list-style-type: none"> Participate in domestic/international standards development committees for rule-making in the relevant technologies.

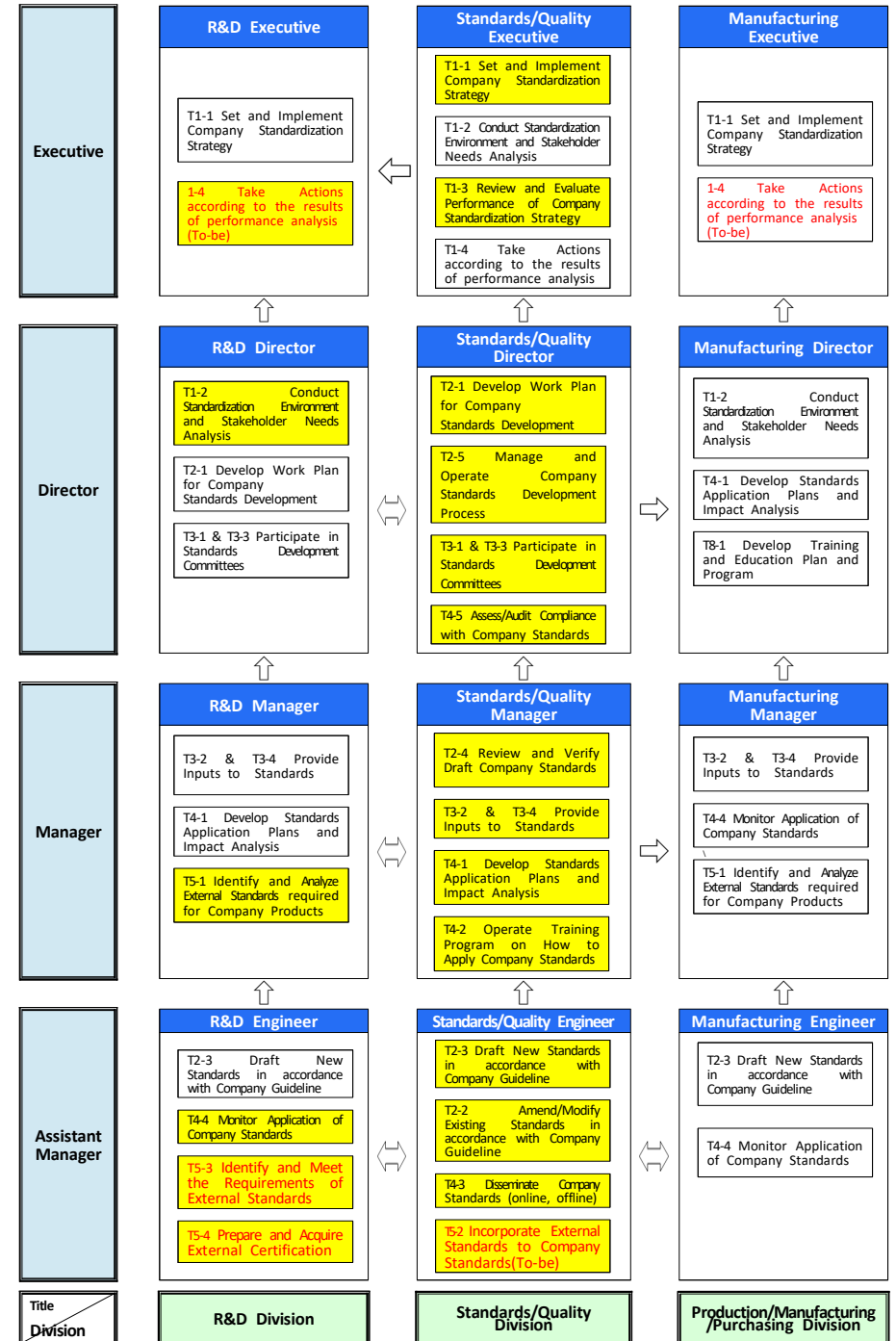
Standards/ Quality	(Turning Point)	<ul style="list-style-type: none"> Participation in important standardization-related improvement projects as the leader, and experience success. <ul style="list-style-type: none"> 3-year performance assessment: Average score of "A" or higher, Foreign language: Excellent Selected as a technical platform master in the relevant field (selected as a member of the core manpower pool). Quantitative outcome of the improvement project in the relevant job: Awards in in-house competition events.
	T2-1 Develop Work Plan for Company Standards Development	<ul style="list-style-type: none"> Establish action plans for developing company standards in accordance with short-term, and mid/long-term strategies of the company.
	T2-5 Manage and Operate Company Standards Development Process	<ul style="list-style-type: none"> By means of analysis of domestic/international technical trends, and collaboration with external consulting bodies based on the strategies of the company, improve, manage and operate processes for developing company standards.
	T3-1 & T3-3 Participate in Standards Development Committees	<ul style="list-style-type: none"> Participate in domestic/international standards development committees for strategic rule-making in the relevant standardization field.
	T4-5 Assess/Audit Compliance with Company Standards	<ul style="list-style-type: none"> Analyze quantitative improvement effects of enactments/amendments of company standards; assess the level of application thereof to the relevant departments; and conduct regular audits.
Production /Manufacturing/ Purchasing	T1-2 Conduct Standardization Environment and Stakeholder Needs Analysis	<ul style="list-style-type: none"> By means of agreements with domestic/international institutions specializing in analysis of production/purchasing, and external consulting, supervise analysis of environments of standardization and needs of stakeholders at regular intervals.
	T4-1 Develop Standards Application Plans and Impact Analysis	<ul style="list-style-type: none"> Establish plans for applying standards in order to improve productivity and purchasing efficiency; and assess impacts.
	T8-1 Develop Training and Education Plan and Program	<ul style="list-style-type: none"> Supervise implementation of projects for improving productivity and purchasing efficiency; establish plans for training the relevant departments on the outcomes of the projects; and implement program development by means of external service contracting.

2.4 (General Tasks for Company) Executive Level (over 25 years)

Division	Sub-task	Details (or examples) of sub-tasks
Standards/ Quality	(Turning Point)	<ul style="list-style-type: none"> Performance assessment on the establishment and implementation of company standardization strategies (on the annual basis) <ul style="list-style-type: none"> Outstanding assessment of results in terms of economic effects, and dissemination of success cases.
	T1-1 Set and Implement Company Standardization Strategy	<ul style="list-style-type: none"> In line with Industry 4.0, and in overall consideration of the market ripple effects, urgency, and influence on the other fields, establish a strategic road map for developing company standards (external consulting for standardization technologies relating to strategic planning projects).

	T1-2 Conduct Standardization Environment and Stakeholder Needs Analysis	<ul style="list-style-type: none"> By means of collaboration with external advanced consulting companies relating to strategic business groups, in establishing a Y+3 strategic road map for company standardization, provide technical advice on standardization of the relevant field
	T1-3 Review and Evaluate Performance of Company Standardization Strategy	<ul style="list-style-type: none"> Establish Y+3 internal company standardization strategies; assess quantitative implementation achievement levels of the relevant departments including R&D, quality, and production departments; and report the assessment result during management review meetings. (external consulting for standardization technologies relating to strategic planning projects).
	T1-4 Take Actions according to the results of performance analysis	<ul style="list-style-type: none"> Establish plans for improving the weak points of the relevant departments found during the performance analysis; monitor the progress of improvement by department; and carry out follow-up actions.
Production /Manufacturing/ Purchasing	T1-1 Set and Implement Company Standardization Strategy	<ul style="list-style-type: none"> By means of benchmarking advanced competitors in the relevant industry, supervise the establishment and implementation of strategies for company standardization, including improvement of productivity, and efficiency of purchasing processes. With regard to the implementation of projects establishing and achieving strategies of the company relating to production/purchasing improvement, in terms of quantitative improvements of sales, as well as qualitative improvements including customers' response in the market, performance is assessed based on the results of the analysis of economic effects.

1. Personal Career Path Story-telling



1.1 (Personal Tasks for Company) Assistant Manager Level (1-7 years)

Division	Detailed Sub-task	Details of Sub-tasks Carried out in Person
R&D	T4-4 Monitor Application of Company Standards	<ul style="list-style-type: none"> I analyzed improvement points for design and development standards through making TFT activities for improving quality of new products.
	T5-3 Identify and Meet the Requirements of External Standards (To-be)	<ul style="list-style-type: none"> Through searching for the relevant SAE and ISO standards for launching new product in foreign markets, and analyzing requirements from standards, I established specifications of new product development.
	T5-4 Prepare and Acquire External Certification (To-be)	<ul style="list-style-type: none"> I prepared technical documents, and received inspections for acquiring CE certificates of new products.
Standards /Quality	Important turning point	<ul style="list-style-type: none"> While preparing for ISO9000 assessment and receiving inspections for acquiring CE certificates, I realized the functions and significance of standards. While I carried out field monitoring of new products, and made a successful implementation of the quality improvement TFT, I established by position as a standards staff.
	T2-2 Amend/Modify Existing Standards in accordance with Company Guideline	<ul style="list-style-type: none"> I carried out enactment/amendment of company job standards in preparing for the ISO9000 assessment.
	T2-3 Draft New Standards in accordance with Company Guideline	<ul style="list-style-type: none"> I created standards drafts for establishing processes for new product development. I created standards drafts for field monitoring of new product
	T4-3 Disseminate Company Standards (online, offline)	<ul style="list-style-type: none"> On the standards enacted/amended in accordance with ISO9000 criteria, I provided training for working-level employees of the R&D division.
	T5-2 Integrated external standards into company standards (To-be)	<ul style="list-style-type: none"> I reflected the CE certifications standards that specify legal requirements form the European market to company standards draft for integration.

1.2 (Personal Tasks for Company) Manager Level (7-15 years)

Division	Detailed Sub-task	Details of Sub-tasks Carried out in Person
R&D	T5-1 Identify and Analyze External Standards required for Company Products	<ul style="list-style-type: none"> I analyzed domestic/international standards and specifications by product/market. Based on the result of the analysis of standards and specifications, I provided data for a product development road map.
Standards /Quality	Important turning point	<ul style="list-style-type: none"> My capabilities for analyzing and understanding standards and specifications applicable to the relevant products and markets were expanded. Through communication with the divisions of my company, my understanding of the products and technologies were matured. Through carrying out works responding to product and market regulations, I established my standing as a standards expert.
	T2-4 Review and Verify Draft Company Standards	<ul style="list-style-type: none"> Including trends in the Korean, European, Chinese, and American markets relating to engines, automotive parts, and agricultural tractors, and the relevant standards, I analyzed and shared legal requirements from the regulations. Based on the result of the analysis of legal requirements, I reviewed the responsive level of the company standards drafts, and established/presented level-up solutions.
	T3-2 & T3-4 Provide Inputs to Standards	<ul style="list-style-type: none"> When the domestic statues concerning regulation on engine exhaust gas and automotive safety, <ul style="list-style-type: none"> I disseminated information on reference international standards and specifications.

		<ul style="list-style-type: none"> Through identifying the response level of the industry, and collecting proposals, I prepared documents for submitting opinions. I developed templates for aligning company standards in accordance with changes in regulatory levels, and provide guidelines on data inputting.
	T4-1 Develop Standards Application Plans and Impact Analysis	<ul style="list-style-type: none"> For improving responsive force relating to product CoP (Conformity of Production), I classified applicable standards, and developed/enacted necessary standards. Based on the applicable standards, I made regular reviews of the utilization levels of the divisions, and surveys on satisfaction levels. Based on the results of review and surveys, I assessed and improved conformity to the existing standards.
	T4-2 Operate Training Program on How to Apply Company Standards	<ul style="list-style-type: none"> I developed education/training curricular, and provided education/training sessions. <ul style="list-style-type: none"> After consultation with the department in charge of education/training, I designed education/training curricula by division/position, reflected them to annual education/training plans, and acted as an instructor for the curricula.

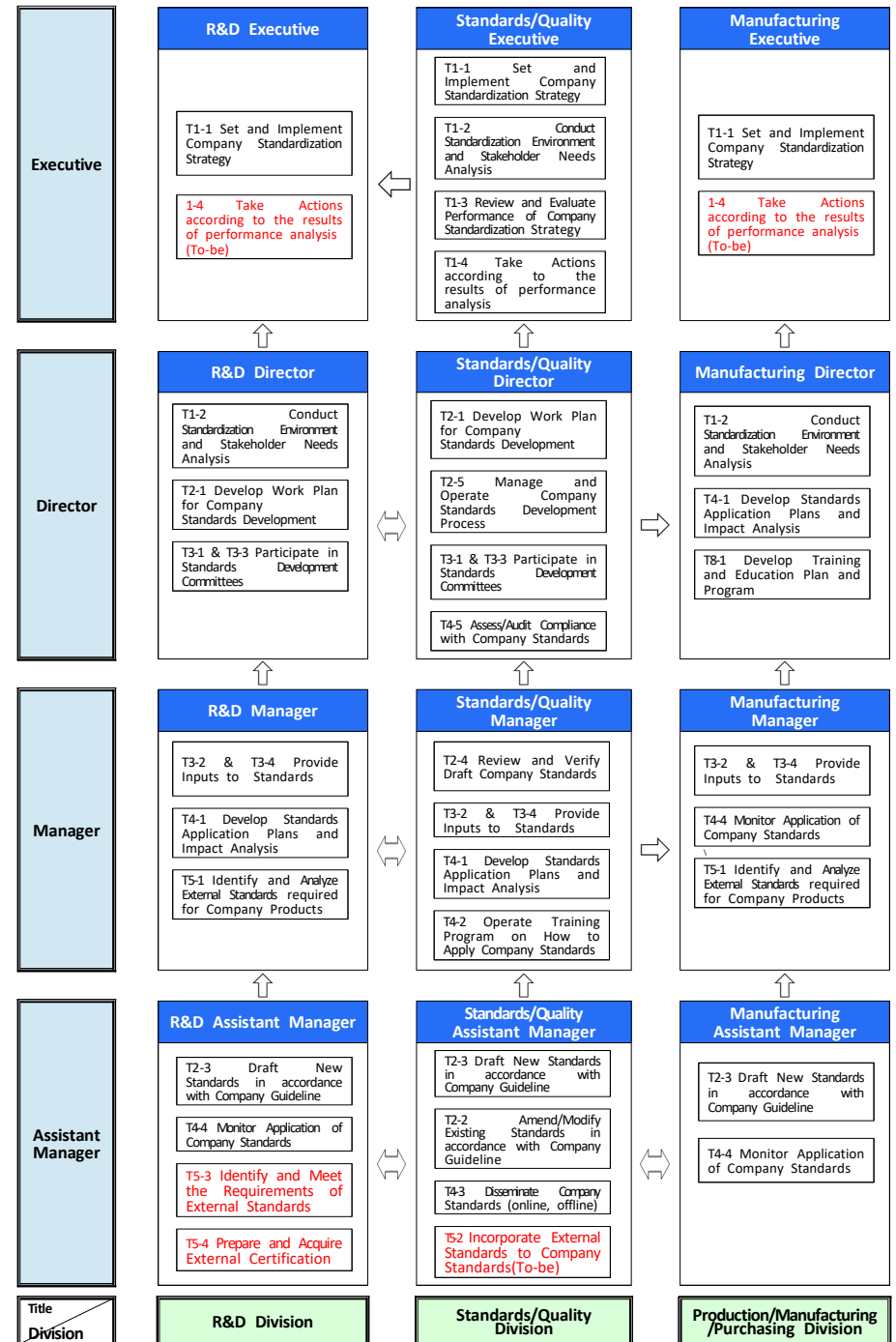
1.3 (Personal Tasks for Company) Director Level (15-25 years)

Division	Detailed Sub-task	Details of Sub-tasks Carried out in Person
R&D	T1-2 Conduct Standardization Environment and Stakeholder Needs Analysis	<ul style="list-style-type: none"> I provided advice on how to classify external stakeholders who may affect development of new products and businesses, and provided assistance for analyzing demand by classified group. I led the quantification work of external standards activities in preparation for sustainability management reporting of the company.
Standards /Quality	Important turning point	<ul style="list-style-type: none"> My group established standing as an expert group that addresses internal standards of the organization, and played the role of a single window for public relations and government relations activities on behalf of the company.
	T2-1 Develop Work Plan for Company Standards Development	<ul style="list-style-type: none"> I led a TFT for establishing strategies for developing company standards concerning development of new products and launching thereof in new markets.
	T2-5 Manage and Operate Company Standards Development Process	<ul style="list-style-type: none"> By means of benchmarking of advanced companies, forming of internal conference bodies, and consulting of external experts, I established and optimized criteria for managing standards development processes.
	T3-1 & T3-3 Participate in Standards Development Committees	<ul style="list-style-type: none"> Participate in domestic/international standards development committees. <ul style="list-style-type: none"> Domestic: I participated in the relevant meetings held by the Ministry of Environment, the Ministry of Land, Infrastructure, and Transport, and the Korean Agency for Technology and Standards, and presented opinions on behalf of the company. International: I participated in the relevant meetings held by ISO/TC127 and JTLM (Joint Technical Liaison Meeting) and presented opinions on behalf of the industry. I shared discussions made in the committees, and acquired feedbacks from stakeholders.
	T4-5 Assess/Audit Compliance with Company Standards	<ul style="list-style-type: none"> I conducted regular checkups on the operating status of company standards once every half year, and conducted regular diagnoses once every year. <ul style="list-style-type: none"> I assessed conformity to standards, and carried out conformity audits. I analyzed the results of checkups and audits, reported them during business management reviews, and made follow-up actions.

1.4 (Personal Tasks for Company) Executive Level (over 25 years)

Division	Detailed Sub-task	Details of Sub-tasks Carried out in Person
R&D	T1-4 Take Actions according to the results of performance analysis (To-be)	<ul style="list-style-type: none"> I analyzed causes of the items of each department in which assessment scores were unsatisfactory. I established catch-up plans by item, and monitored implementation results. I formed and operated a TFT for increasing overall average assessment scores of the divisions.
Standards/Quality	Important turning point	<ul style="list-style-type: none"> I supported development of products and technologies internally, and formed the organization as a control tower for standards strategies that decides direction of market quality externally in terms of identity.
	T1-1 Set and Implement Company Standardization Strategy	<ul style="list-style-type: none"> For verifying the direction and accuracy of the corporate product/technical development road map, I established standardization strategies. I lead the alignment and integration between the product/technical development road map and standardization strategies. I made follow-up actions for the action plans based on the integrated strategic road map.
	T1-3 Review and Evaluate Performance of Standardization Strategy	<ul style="list-style-type: none"> I assessed product conformity to standards, and carried out audits on divisional conformity to standards. I made follow-up actions with consulting by an external expert group with regard to the results of the assessment and audits. I established plans for improvement and solution based on the integrated strategic road map. I led the corporate improvement activities, and made the improvement result during the management review meetings.

2. Standardization Tasks of Company



2.1 (General Tasks for Company) Assistant Manager Level (1-7 years)

Division	Sub-task	Details (or examples) of sub-tasks
R&D	T2-3 Draft New Standards in accordance with Company Guideline	<ul style="list-style-type: none"> Only the field is different from that of the same job in the category of standards/quality, while the activities are identical to those thereof.
	T4-4 Monitor Application of Company Standards	<ul style="list-style-type: none"> Carry out development work and assess the output (drawings, pilot products) achievement based on company standards.
	T5-3 Identify and Meet the Requirements of External Standards (To-be)	<ul style="list-style-type: none"> Search for requirements from domestic/international standards and laws applicable to the relevant product, and make comparative analysis of development specifications.
	T5-4 Prepare and Acquire External Certification (To-be)	<ul style="list-style-type: none"> For acquiring domestic/international certificates that are needed for market launching of the relevant product, prepare technical documents; prepare for audits; and make responsive actions.
Standards/Quality	Basic capabilities for fulfilling specified jobs.	<ol style="list-style-type: none"> Knowledge: Capabilities for understanding standards, laws, and policies Skill: Capabilities for preparing and reporting documents Ability: Capabilities for collecting and analyzing data
	T2-2 Amend/Modify Existing Standards in accordance with Company Guideline	<ul style="list-style-type: none"> Collect complaints about and problems of the relevant standard. Amend standards by reflecting internal requirements from the organization, and update information.
	T2-3 Draft New Standards in accordance with Company Guideline	<ul style="list-style-type: none"> Research on demand for necessary standards and collect opinions. Create and finalize standards drafts (after circulating within the organization).
	T4-3 Disseminate Company Standards (online, offline)	<ul style="list-style-type: none"> Register the outcomes of standards enactment/amendment into the computer system, and manage them. Hold briefing for the relevant departments, and acquire feedback.
	T5-2 Integrated external standards into company standards (To-be)	<ul style="list-style-type: none"> Search for similar or identical external standards. Make comparative analysis of the possibility or necessity of contents integration. After making decision on integration, carry out field work.
Production /Manufacturing/ Purchasing	T2-3 Draft New Standards in accordance with Company Guideline	<ul style="list-style-type: none"> Only the field is different from that of the same job in the category of standards/quality, while the activities are identical to those thereof.
	T4-4 Monitor Application of Company Standards	<ul style="list-style-type: none"> Only the field is different from that of the same job in the category of R&D, while the activities are identical to those thereof.

2.2 (General Tasks for Company) Manager Level (7-15 years)

Division	Sub-task	Details (or examples) of sub-tasks
R&D	T3-2 & T3-4 Provide Inputs to Standards	<ul style="list-style-type: none"> Only the field is different from that of the same job in the category of standards/quality, while the activities are identical to those thereof.
	T4-1 Develop Standards Application Plans and Impact Analysis	<ul style="list-style-type: none"> Only the field is different from that of the same job in the category of standards/quality, while the activities are identical to those thereof.
	T5-1 Identify and Analyze External Standards required for Company Products	<ul style="list-style-type: none"> Search for and analyze domestic/international standards/specifications of the relevant product/market. Provide assistance for R&D department to establish a product development strategic road map.
Standards/Quality	Basic capabilities for fulfilling specified jobs.	<ol style="list-style-type: none"> Knowledge: Capabilities for understanding products and technologies Skill: Capabilities for communication (explanation, persuasion, and coordination) Ability: Capabilities for analyzing core issues and finding solutions.
	T2-4 Review and Verify Draft Company Standards	<ul style="list-style-type: none"> Identify trends in domestic/international advanced technologies relating to the product, and analyze the requirements from the relevant standards and laws. Review standards drafts for making decision on whether internal response of the organization may be possible, find methods for improvement, and present methods for verification.
	T3-2 & T3-4 Provide Inputs to Standards	<ul style="list-style-type: none"> Develop templates and data for providing inputs for standard development in the relevant field.
	T4-1 Develop Standards Application Plans and Impact Analysis	<ul style="list-style-type: none"> Establish a plan for applying standards of the product to the relevant departments of the organization; research on the satisfaction of the internal customers with the application of the standards; and carry out conformity assessment.
	T4-2 Operate Training Program on How to Apply Company Standards	<ul style="list-style-type: none"> Plan training programs for the relevant departments and positions, and provide the training in person, or provide assistance for the training.
Production /Manufacturing/ Purchasing	T3-2 & T3-4 Provide Inputs to Standards	<ul style="list-style-type: none"> Only the field is different from that of the same job in the category of standards/quality, while the activities are identical to those thereof.
	T4-4 Monitor Application of Company Standards	<ul style="list-style-type: none"> Only the field is different from that of the same job in the category of standards/quality, while the activities are identical to those thereof.
	T5-1 Identify and Analyze External Standards required for Company Products	<ul style="list-style-type: none"> Only the field is different from that of the same job in the category of R&D, while the activities are identical to those thereof.

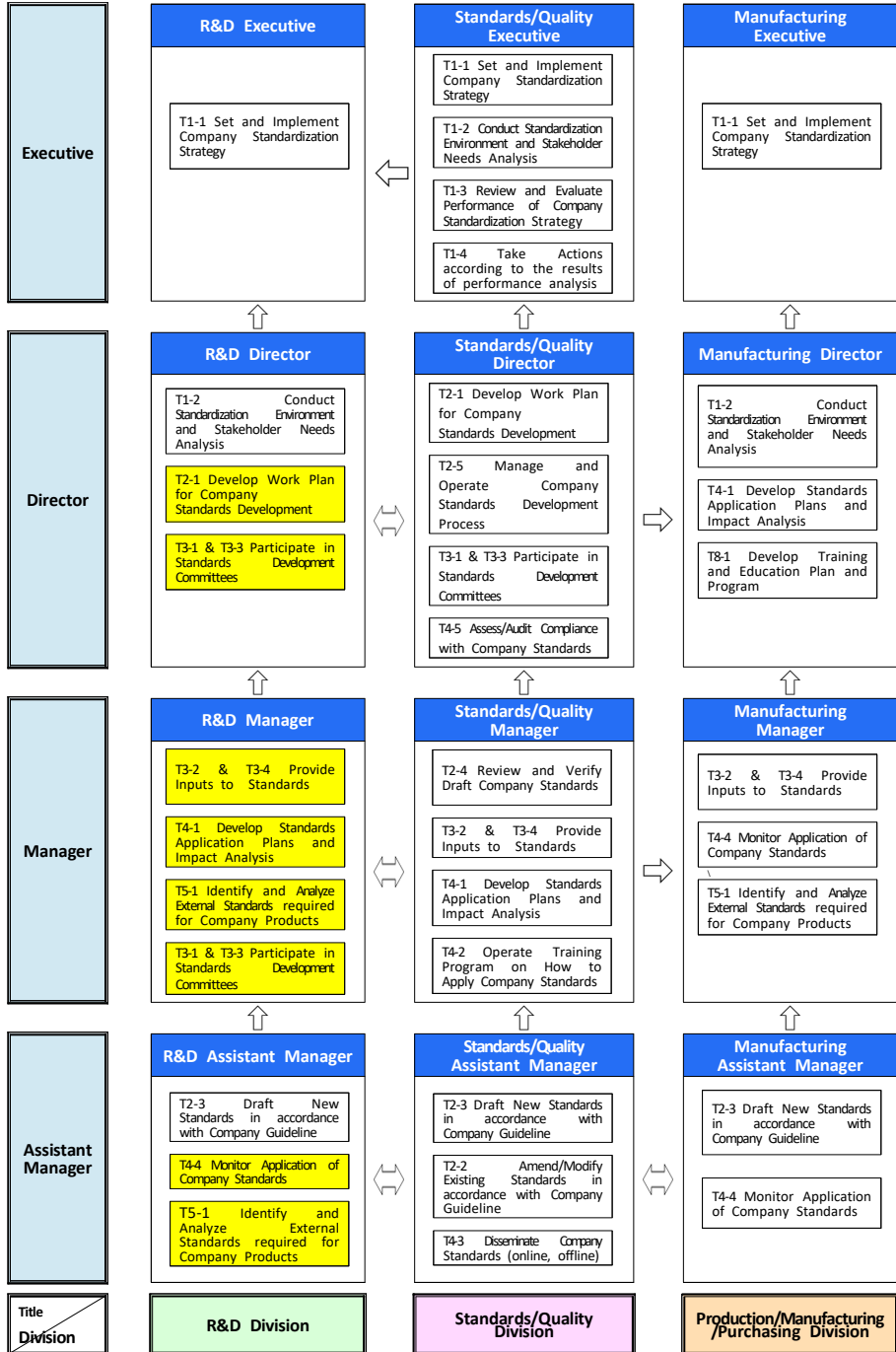
2.3 (General Tasks for Company) Director Level (15-25 years)

Division	Sub-task	Details (or examples) of sub-tasks
R&D	T1-2 Conduct Standardization Environment and Stakeholder Needs Analysis	<ul style="list-style-type: none"> Classify and implement standards applicable to the relevant field. Analyze the qualitative/quantitative adequacy of the inputs and outputs of the applicable standards. Collect VoC of the relevant departments relating to the reference inputs and outputs of the pertaining processes.
	T2-1 Develop Work Plan for Company Standards Development	<ul style="list-style-type: none"> Only the field is different from that of the same job in the category of standards/quality, while the activities are identical to those thereof.
	T3-1 & T3-3 Participate in Standards Development Committees	<ul style="list-style-type: none"> Only the field is different from that of the same job in the category of standards/quality, while the activities are identical to those thereof.
Standards/Quality	Basic capabilities for fulfilling specified jobs.	<ol style="list-style-type: none"> Knowledge: Capabilities for making assessment and audits. Skill: Capabilities for forming and managing personal connections with stakeholders. Ability: Capabilities for making, and implementing decisions.
	T2-1 Develop Work Plan for Company Standards Development	<ul style="list-style-type: none"> Establish phased action plans based on the company standards development road map.
	T2-5 Manage and Operate Company Standards Development Process	<ul style="list-style-type: none"> By means of benchmarking analysis of best practices of advanced domestic/international companies including those of the relevant industry, improve, manage, and operate standard development processes.
	T3-1 & T3-3 Participate in Standards Development Committees	<ul style="list-style-type: none"> Participate in domestic/international standards development committees. <ul style="list-style-type: none"> Collect internal/external opinions for presenting policies for responding to the standards development. Share discussions made in the committees, and manage feedbacks.
	T4-5 Assess/Audit Compliance with Company Standards	<ul style="list-style-type: none"> Carry out assessment of the products on conformity to standards (quantitative/qualitative). Carry out assessment of the divisions on conformity to standards (regular/unscheduled).
Production/Manufacturing/Purchasing	T1-2 Conduct Standardization Environment and Stakeholder Needs Analysis	<ul style="list-style-type: none"> Only the field is different from that of the same job in the category of R&D, while the activities are identical to those thereof.
	T4-1 Develop Standards Application Plans and Impact Analysis	<ul style="list-style-type: none"> Only the field is different from that of the same job in the category of standards/quality, while the activities are identical to those thereof.
	T8-1 Develop Training and Education Plan and Program	<ul style="list-style-type: none"> Only the field is different from that of the same job in the category of standards/quality, while the activities are identical to those thereof.

2.4 (General Tasks for Company) Executive Level (over 25 years)

Division	Sub-task	Details (or examples) of sub-tasks
R&D	T1-1 Set and Implement Company Standardization Strategy	<ul style="list-style-type: none"> Only the field is different from that of the same job in the category of standards/quality, while the activities are identical to those thereof.
	T1-4 Take Actions according to the results of performance analysis (To-be)	<ul style="list-style-type: none"> Based on the results of analysis/diagnosis of standards, establish catch-up plans for departments and make follow-up actions. Share the result of the monitoring and follow-up actions of improvement activities with the quality division, and acquire feedback. Report improvement results to the management, and continue level-up activities.
Standards/Quality	Basic capabilities for fulfilling specified jobs.	<ol style="list-style-type: none"> Knowledge: Capabilities for business and organizational management Skill: Leadership of consulting and motivation Ability: Capabilities for establishing road maps and strategies
	T1-1 Set and Implement Company Standardization Strategy	<ul style="list-style-type: none"> Establish and implement a standards development road map based on the business strategies of the company.
	T1-2 Conduct Standardization Environment and Stakeholder Needs Analysis	<ul style="list-style-type: none"> Provide technical advice for the relevant divisions based on the standards development strategic road map.
	T1-3 Review and Evaluate Performance of Company Standardization Strategy	<ul style="list-style-type: none"> Carry out assessment of the products and the divisions on conformity to standards; analyze the assessment results; establish improvement plans; and make regular reports during management review meetings.
	T1-4 Take Actions according to the results of performance analysis	<ul style="list-style-type: none"> Based on the results of the performance analysis, monitor responsive actions by product/division, and make follow-up actions.
Production/Manufacturing/Purchasing	T1-1 Set and Implement Company Standardization Strategy	<ul style="list-style-type: none"> Only the field is different from that of the same job in the category of standards/quality, while the activities are identical to those thereof.
	T1-4 Take Actions according to the results of performance analysis (To-be)	<ul style="list-style-type: none"> Only the field is different from that of the same job in the category of R&D, while the activities are identical to those thereof.

1. Personal Career Path Story-telling



1.1 (Personal Tasks for Company) Assistant Manager Level (1-7 years)

Division	Detailed Sub-task	Details of Sub-tasks Carried out in Person
R&D	Important turning point	<ul style="list-style-type: none"> I fabricated ASIC in accordance with the specifications of IEC 61158. I analyzed international standards, and the actual operation of the products in comparison with the standards. I planned for and assessed product development based on analysis results.
	T4-4 Monitor Application of Company Standards	<ul style="list-style-type: none"> I monitored product development and changes in accordance with company standards.
	T5-1 Identify and Analyze External Standards required for Company Products	<ul style="list-style-type: none"> I analyzed and applied international standards to export products. I identified the significance of the IEC 61158 series. I analyzed methods for applying standards to products. I applied standard technologies to company products.

1.2 (Personal Tasks for Company) Manager Level (7-15 years)

Division	Detailed Sub-task	Details of Sub-tasks Carried out in Person
R&D	Important turning point	<ul style="list-style-type: none"> I developed technologies based on the megatrends of industrial communications. I developed communications technologies considering real-time property and high availability. I implemented international standardization relating hereto in the IEC. I participated in the meetings of IEC TC65/SC65C/MT9 for the first time (2007) I implemented 12 international standards starting with the acceptance of a PAS specification. I designated as an engineer of the month (2010). I won a minister's award on the World Standards Day (2010).
	T3-2 & T3-4 Provide Inputs to Standards	<ul style="list-style-type: none"> I prepared 12 international standard specifications for industrial communications. I prepared 6 specifications of IEC 61158-3/4/5/6-21 for real-time communications. I prepared 2 specifications of IEC 62439-1, and 62439-7 for high-availability communications. I prepared 2 specifications of IEC 61784-3-17, and 61784-3 CPF 17 for functional-safety communications. I prepared 2 specifications of IEC 61784-5-17, and 61918 Type 21 for cables. I enacted/amended many KS standards to make them conform to international standards of industrial communications. KS C IEC 61158, 62439, and 61784-3 series KS C IEC 61508, 62541-4, 61131-3 series
	T4-1 Develop Standards Application Plans and Impact Analysis	<ul style="list-style-type: none"> I established and implemented a plan for entering into consulting agreement with a university professor specializing in international standards. I established an action plan for making an industrial communications technology of my company an international standard. I developed an international standard of functional-safety communications network for industrial automation. I registered an international standard of high-availability automated communications technology.
	T5-1 Identify and Analyze External Standards required for Company Products	<ul style="list-style-type: none"> I analyzed and applied international standards to export products. I identified the significance of the IEC 61508, 62439, and 61784 series. I analyzed methods for applying standards to products. I applied standard technologies to company products.
	T3-1 & T3-3 Participate in Standards Development Committees	<ul style="list-style-type: none"> I worked as the Korean representative for IEC TC 65. I registered 2 specifications of IEC TC65/SC65C/MT9 for real-time communications (IEC 61158, etc.) I registered 2 specifications of IEC TC65/SC65C/WG15 for high-availability communications (IEC 62439, etc.) I prepared 2 specifications of IEC TC65/SC65C/WG12 for

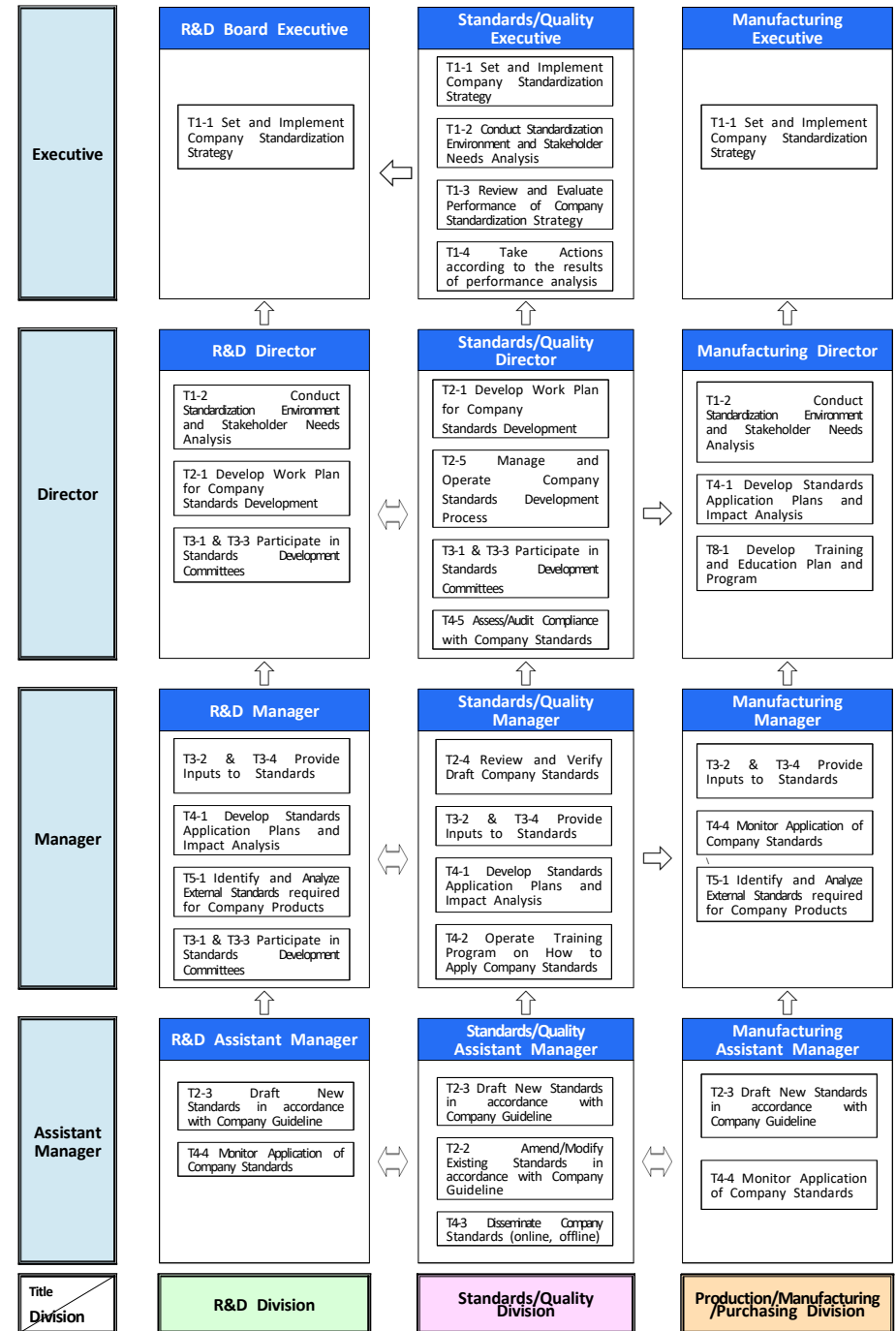
	<p>functional-safety communications (IEC 61784-3, etc.)</p> <ul style="list-style-type: none"> - I prepared 2 specifications of IEC TC65/SC65C/JWG10 for communications cables (IEC 61784-5, etc.) - I presented myself at the general meetings that were held once every 18 months, and hosted a general meeting (2011). - I participated in a number of WGs, and hosted them. ● I worked as a secretary to the Special Committee on IEC TC 65. - I hold 4 meetings per year for reviewing major international standards, and making KS standards conform to them. - I made 6 KS standards conform to IEC TC65/SC65C/MT9 for real-time communications (IEC 61158, etc.) - I made 2 KS standards conform to IEC TC65/SC65C/WG15 for high-availability communications (IEC 62439, etc.) ● I worked as a secretary to the Smart Manufacturing Standard Technology Research Group of the IEC. - I made major standards of smart manufacturing conform to the international standards. - I shared the details of the major technologies with domestic committee members. ● I worked as an advisor to ISO TC 184/SC5. - I reviewed major technologies of ISO.
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1.3 (Personal Tasks for Company) Director Level (15-25 years)

Division	Detailed Sub-task	Details of Sub-tasks Carried out in Person
R&D	Important turning point	<ul style="list-style-type: none"> ● I registered an international standard of IEC 61784-3-17 RAPIENet Safety for functional-safety communications technology (2016). - I made all the KS standards of industrial communications conform to the international standards. ● I won a Best R&D Award from my company (2016). ● I won a presidential award on the World Standards Day (2016). ● I worked as the Korean representative for IEC Smart Manufacturing.
	T2-1 Develop Work Plan for Company Standards Development	<ul style="list-style-type: none"> ● I established a plan for maintaining/expanding 12 technologies of my company as international standards. - I created a standardization basis of inter-operability for smart factories (information and RAPIENet). ● I participated in a multilateral project of the Korean Intellectual Property Office (Ministry of Industry - high-availability communications). - The field of IEC that has the largest patents relating to standards is industrial communications. - I reviewed patent violations for proposing additional standards.
	T3-1 & T3-3 Participate in Standards Development Committees	<ul style="list-style-type: none"> ● I worked as the Korean representative for the Smart Manufacturing Standard Committee under the IEC SMB. - I worked as the Korean representative for IEC SMB/SG8. - I worked as the Korean representative for IEC SMB/SEG7. - I am going to be the Korean representative for IEC SMB/SyC. ● I worked as the Korean representative for IEC TC 65. - I registered 2 specifications of IEC TC65/SC65C/WG12 for functional-safety communications (IEC 61784-3, etc.) - I am preparing IEC TC65/SC65C/MT9 IEC 61158 Ed2.0. - I am going to hold the 2018 general meeting. ● I worked as a secretary to the Special Committee on IEC TC 65. - I hold 4 meetings per year for reviewing major international standards, and making KS standards conform to them. - I made 2 KS standards conform to IEC TC65/SC65C/WG12 for functional-safety communications (IEC 61784-3, etc.) ● I worked as a secretary to the Smart Manufacturing Standard Technology Research Group of the IEC. - I made major standards of smart manufacturing conform to the international standards. - I shared the details of the major technologies with domestic committee members. ● I worked as an advisor to ISO TC 184/SC5. - I reviewed major technologies of ISO.

1.4 (Personal Tasks for Company) Executive Level (over 25 years): Not Applicable

2. Standardization Tasks of Company



2.1 (General Tasks for Company) Assistant Manager Level (1-7 years)

Division	Sub-task	Details (or examples) of sub-tasks
R&D	T2-3 Draft New Standards in accordance with Company Guideline	<ul style="list-style-type: none"> Understand forms for creating company standards drafts. Provide basic contents for creating company standards drafts. Create company standards drafts.
	T4-4 Monitor Application of Company Standards	<ul style="list-style-type: none"> Apply company standards and detailed rules to processes.
Standards/Quality	(Turning Point)	<ul style="list-style-type: none"> It is necessary to objectively recognize field capabilities in the relevant job. <ul style="list-style-type: none"> 3-year performance assessment: Score of "B" or higher, Foreign language: Medium or higher level Participation in standardization-related improvement projects: 1 time/year Training/certificate acquisition for carrying out the relevant job: Compulsory requirements
	T2-2 Amend/Modify Existing Standards in accordance with Company Guideline	<ul style="list-style-type: none"> Carry out field work for amending existing standards in accordance with the core strategies of the pertaining year. <ul style="list-style-type: none"> Performance assessment: Score of "B" or higher in terms of achieving objectives of quantitative deliverables.
	T2-3 Draft New Standards in accordance with Company Guideline	<ul style="list-style-type: none"> Carry out field work of projects relating to company standards for the pertaining year or for the mid/long term. <ul style="list-style-type: none"> Performance assessment: Score of "B" or higher in terms of achieving objectives of quantitative deliverables.
	T4-3 Disseminate Company Standards (online, offline)	<ul style="list-style-type: none"> Hold meetings for sharing enactment/amendment deliverables of company standards with the relevant departments. <ul style="list-style-type: none"> As necessary, monitor effects before/after standards improvement.
Production/Manufacturing/Purchasing	T2-3 Draft New Standards in accordance with Company Guideline	<ul style="list-style-type: none"> Understand forms for creating company standards drafts. Provide basic contents for creating company standards drafts. Create company standards drafts.
	T4-4 Monitor Application of Company Standards	<ul style="list-style-type: none"> Apply company standards and detailed rules to processes.

2.2 (General Tasks for Company) Manager Level (7-15 years)

Division	Sub-task	Details (or examples) of sub-tasks
R&D	T3-2 & T3-4 Provide Inputs to Standards	<ul style="list-style-type: none"> Develop industrial communications technologies, and provide inputs relating to standards.
	T4-1 Develop Standards Application Plans and Impact Analysis	<ul style="list-style-type: none"> Identify and analyze major enactments/amendments of international standards. Establish plans for enacting/amending international standards of industrial communications technologies.
	T5-1 Identify and Analyze External Standards required for Company Products	<ul style="list-style-type: none"> Identify and analyze major enactments/amendments of international standards. Establish product/technical road maps based on the analysis of product impacts.
	T3-1 & T3-3 Participate in Standards Development Committees	<ul style="list-style-type: none"> Participate in domestic committees. <ul style="list-style-type: none"> Smart Manufacturing Standard Technology Research Group Special Committee on IEC TC 65 Special Committee on ISO TC 184 Participate in international committee. <ul style="list-style-type: none"> IEC TC 65

Standards/Quality	(Turning Point)	<ul style="list-style-type: none"> It is necessary to carry out projects for improving standardization and to conduct performance assessment in the relevant job. <ul style="list-style-type: none"> 3-year performance assessment: B average score or higher, Foreign language: Medium or higher level Participation in important standardization-related improvement projects: 2 cases or more (experience in success cases) Training/certificate acquisition for carrying out the relevant job: Compulsory requirements
	T2-4 Review and Verify Draft Company Standards	<ul style="list-style-type: none"> By means of collaboration with external consulting bodies, or analysis of trends in major standardization institutions, review company standards drafts, identify improvement opportunities, and present methods for verifying improvement.
	T3-2 & T3-4 Provide Inputs to National/Domestic Standards	<ul style="list-style-type: none"> Develop and provide inputs for standards development in the relevant field to meet the objectives of the company.
	T4-1 Develop Standards Application Plans and Impact Analysis	<ul style="list-style-type: none"> Establish a plan for applying the deliverables of the projects in the relevant job scope to standards, and carry out field assessment of the effects after improvement.
	T4-2 Operate Training Program on How to Apply Company Standards	<ul style="list-style-type: none"> Provide education/training on how to apply company standards in the relevant field, or provide technical assistance in collaboration with the department in charge of education/training.

2.3 (General Tasks for Company) Director Level (15-25 years)

Division	Sub-task	Details (or examples) of sub-tasks
R&D	T1-2 Conduct Standardization Environment and Stakeholder Needs Analysis	<ul style="list-style-type: none"> Analyze environment and needs of the industrial communications field. <ul style="list-style-type: none"> Collect requirements of major domestic users. Collect requirements of internal product developers.
	T2-1 Develop Work Plan for Company Standards Development	<ul style="list-style-type: none"> Establish plans for participating in major meetings of domestic/international committees. Identify major trends in international standards and technologies. <ul style="list-style-type: none"> Implement and adopt international standards on the SPG viewpoint. Establish a product road map on the SPG viewpoint.
	T3-1 & T3-3 Participate in Standards Development Committees	<ul style="list-style-type: none"> Participate in domestic committees. <ul style="list-style-type: none"> Smart Manufacturing Standard Technology Research Group Special Committee on IEC TC 65 Special Committee on ISO TC 184 Participate in international committee. <ul style="list-style-type: none"> IEC SMB/SEG7, IEC TC 65, IEC TC 57
Standards/Quality	(Turning Point)	<ul style="list-style-type: none"> Participation in important standardization-related improvement projects as the leader, and experience success. <ul style="list-style-type: none"> 3-year performance assessment: Average score of "A" or higher, Foreign language: Excellent Selected as a technical platform master in the relevant field (selected as a member of the core manpower pool). Quantitative outcome of the improvement project in the relevant job: Awards in in-house competition events.
	T2-1 Develop Work Plan for Company Standards Development	<ul style="list-style-type: none"> Establish action plans for developing company standards in accordance with short-term, and mid/long-term strategies of the company.
	T2-5 Manage and Operate Company Standards Development Process	<ul style="list-style-type: none"> By means of analysis of domestic/international technical trends, and collaboration with external consulting bodies based on the strategies of the company, improve, manage and operate processes for developing company standards.

	T3-1 & T3-3 Participate in Standards Development Committees	<ul style="list-style-type: none"> Participate in domestic/international standards development committees for strategic rule-making in the relevant standardization field.
	T4-5 Assess/Audit Compliance with Company Standards	<ul style="list-style-type: none"> Analyze quantitative improvement effects of enactments/amendments of company standards; assess the level of application thereof to the relevant departments; and conduct regular audits.
Production /Manufacturing/ Purchasing	T1-2 Analyze environments of standardization and needs of stakeholders.	<ul style="list-style-type: none"> Further analysis is to be needed.
	T4-1 Establish plans for applying standards, and assess impacts.	<ul style="list-style-type: none"> Further analysis is to be needed.
	T8-1 Develop plans and programs for education/training.	<ul style="list-style-type: none"> Further analysis is to be needed.

2.4 (General Tasks for Company) Executive Level (over 25 years)

Division	Sub-task	Details (or examples) of sub-tasks
R&D	T1-1 Set and Implement Company Standardization Strategy	<ul style="list-style-type: none"> Establish strategies for implementing international standards. <ul style="list-style-type: none"> Review the possibility that a technology of the company may become an international standard. Establish plans for interviewing with chairpersons/secretaries/conveners of international standards institutions. Establish strategies for adopting international standards. <ul style="list-style-type: none"> Review impact of major international standards on products of the company. Reflect the review results to the product development road map on the company's viewpoint.
Standards/ Quality	(Turning Point)	<ul style="list-style-type: none"> Performance assessment on the establishment and implementation of company standardization strategies (on the annual basis) <ul style="list-style-type: none"> Outstanding assessment of results in terms of economic effects, and dissemination of success cases.
	T1-1 Set and Implement Company Standardization Strategy	<ul style="list-style-type: none"> In line with Industry 4.0, and in overall consideration of the market ripple effects, urgency, and influence on the other fields, establish a strategic road map for developing company standards (external consulting for standardization technologies relating to strategic planning projects).
	T1-2 Conduct Standardization Environment and Stakeholder Needs Analysis	<ul style="list-style-type: none"> By means of collaboration with external advanced consulting companies relating to strategic business groups, in establishing a Y+3 strategic road map for company standardization, seek for technical advice on standardization of the relevant field.
	T1-3 Review and Evaluate Performance of Company Standardization Strategy	<ul style="list-style-type: none"> Establish Y+3 internal company standardization strategies; assess quantitative implementation achievement levels of the relevant departments including R&D, quality, and production departments; and report the assessment result during management review meetings. (external consulting for standardization technologies relating to strategic planning projects).
	T1-4 Take Actions according to the results of performance analysis	<ul style="list-style-type: none"> Establish plans for improving the weak points of the relevant departments found during the performance analysis; monitor the progress of improvement by department; and carry out follow-up actions.
Production /Manufacturing/ Purchasing	T1-1 Set and Implement Company Standardization Strategy	<ul style="list-style-type: none"> Further analysis is to be needed.