

## The key to security trade administration in companies

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- I. Introduction of Toray
- II. Important issues for the basis of security trade administration (personal opinion)
- III. Examples of Toray initiatives
  - 1. Risk visualization
  - 2. Access improvement
  - 3. The importance of double-check



February 28, 2018  
Security Trade Administration Dept.  
Toray Industries, Inc.

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### I. Introduction of Toray

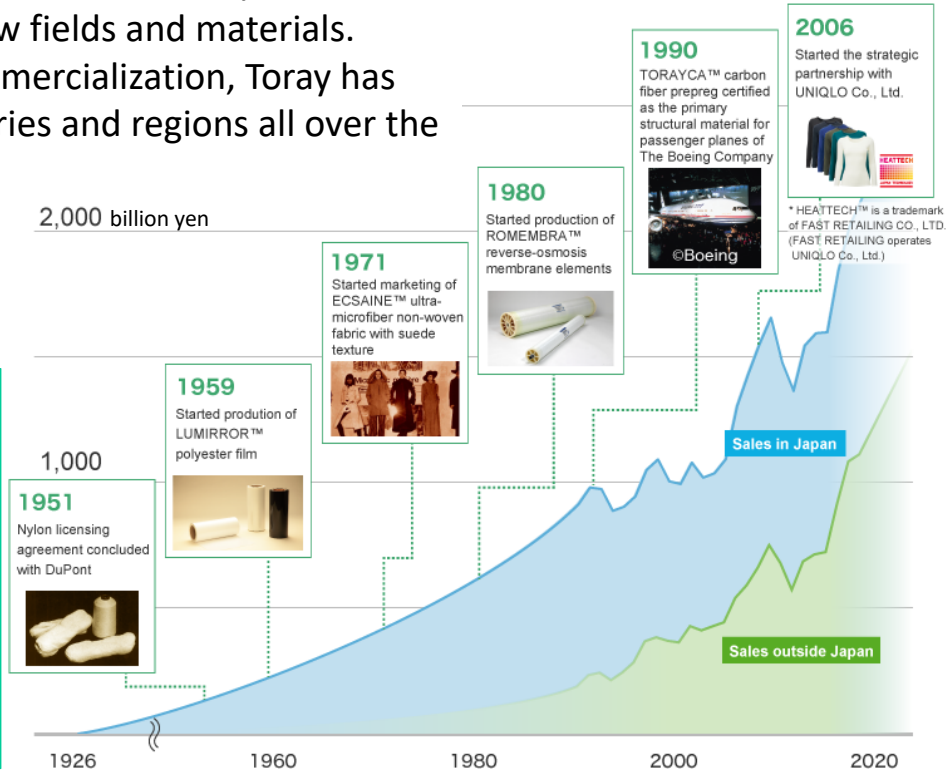
# I. Introduction of Toray

## 1. Toray's History, Sales Trend, and Major Events

Toray, as a member of the basic materials industry, has exerted great effort to develop new fields and materials. Through continuous R&D and commercialization, Toray has expanded its business to 26 countries and regions all over the world, including Japan.

### Corporate Data (as of March 31, 2017)

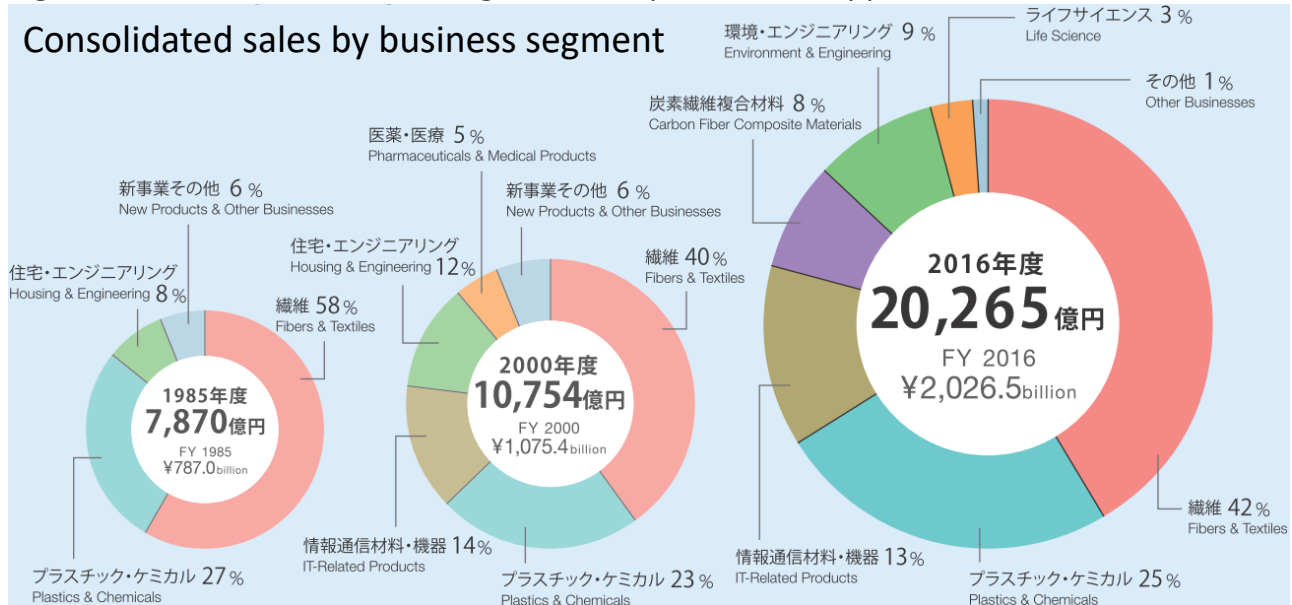
- Corporate Name: Toray Industries, Inc.
- Established: January 1926
- Paid-in Capital: ¥147,873,030,771
- Toray Group Companies (Consolidated Companies): 255 companies; 99 Japanese, 156 overseas
- Number of Employees Toray: 7,220, Total : 46,248



# I. Introduction of Toray

## 2. Business Activities

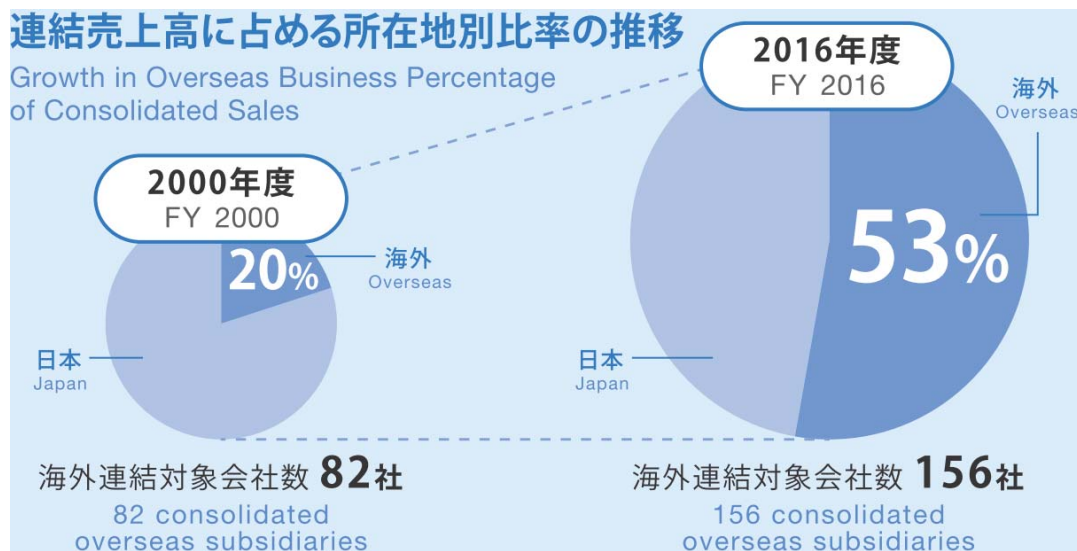
Toray Industries was founded as a manufacturer of the chemical fiber rayon, as reflected in the company's original name, Toyo Rayon. After the Second World War, the company began to manufacture additional resins and films and other synthetic fibers. In addition, while maintaining our competitiveness in raw materials, we continuously reinforced our basic research capabilities to develop new materials; promoted the commercialization of high value-added products, in part through the fusion of basic technologies; and exploited new applications and markets.



# I. Introduction of Toray

## 3. Global Presence of the Toray Group

The Toray Group began manufacturing outside Japan earlier than other Japanese enterprises. Our overseas production activities began in 1963 with the establishment of Thai Toray Textile Mills PLC in Thailand. In the 1960s and 1970s, we expanded to Southeast Asia; in the 1980s, to Europe; and in the 1990s, to the Republic of Korea and China, establishing production plants first for fibers and later for non-fiber films, carbon fiber, and other products. Today we are strengthening the organic coordination between these overseas production plants and our domestic plants, and the global operations that connect these plants can be considered one of Toray's strengths.



# I. Introduction of Toray

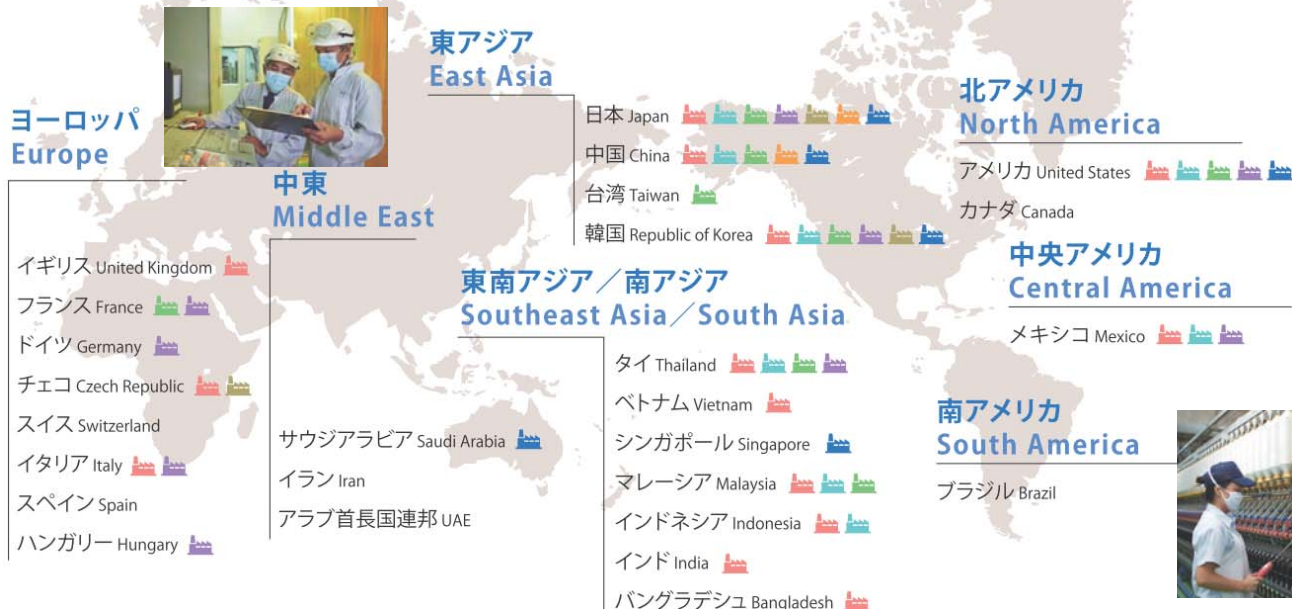
## 4. Global Presence of the Toray Group

The Toray Group does business in 26 countries and regions, including Japan.



マークはおもな生産拠点です Factory symbol indicates major production facility

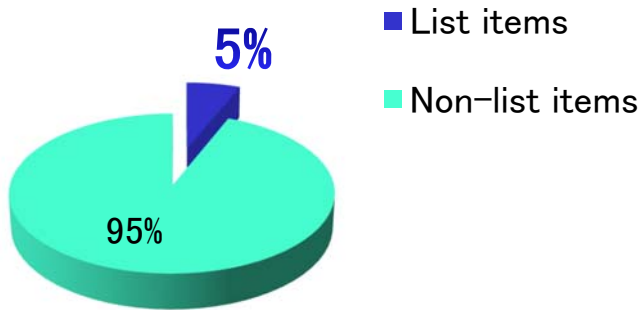
- 繊維 Fibers and Textiles
- 樹脂・ケミカル Resins and Chemicals
- フィルム Films
- 炭素繊維複合材料 Carbon Fiber Composite Materials
- 電子情報材料 Electronic and Information Materials
- 医薬・医療 Pharmaceuticals and Medical Products
- 水処理・環境 Water treatment and Environment



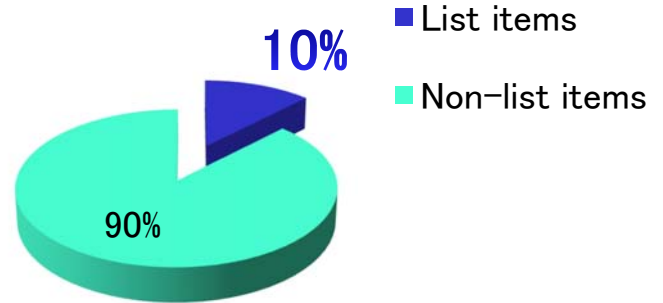
## I. Introduction of Toray

### 5. Percentage of list-regulated items (all of Toray, 2016)

#### As proportion of sales



#### As proportion of exports



## I. Introduction of Toray

### 6. Toray Group main list-regulated items

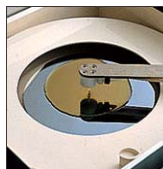
#### Water treatment equipment 【AG】



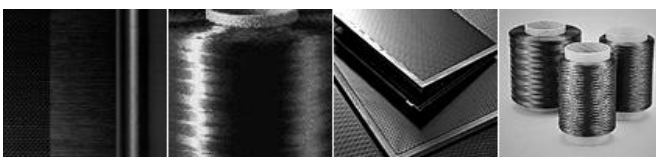
Ultrafiltration, microfiltration hollow fiber membrane module "Trefil" used for various bacteria and turbidity applications

#### Semiconductor related materials 【WA】

Protective films for various semiconductors and electronic parts, polyimide coating agents used for interlayer insulating films, photosensitive "photonics", non photosensitive "semico fine"



#### Carbon fiber · composite material 【NSG, MTCR, WA】



We are the world's largest manufacturer of PAN-based carbon fiber "Torayca" used in various fields from the primary structural parts of aircraft to automotive applications, general industrial applications such as various reinforcing materials, to sports applications such as fishing rod and golf club shafts.

#### Manufacturing equipment of our products

Some of the manufacturing equipment of our products fall under the list regulation. We are exporting to overseas manufacturing bases. (We do not sell outside Toray G.)

#### Carbon fiber related 【MTCR】

- Baking equipment
- Prepreg manufacturing equipment

#### Resin · Film related 【MTCR】

- Twin screw extruder

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## II. Important issues for the basis of security trade administration (personal opinion)

- ### II. What is important for the basis of security trade administration (personal opinion)
1. Security trade administration is a top management priority

The Toray Group recognizes the absolute importance of compliance with laws, regulations, and social norms. Top management takes a clear position on corporate ethics and legal compliance in the execution of their own duties and guides the entire Group's approach to compliance. (Quote: Toray Group CSR Report)



**"We observe laws and social norms."**  
That is the top priority of management and security trade administration is one of our most important themes.

II. What is important for the basis of security trade administration (Personal Opinion)

2. Why do top management actively engage in security trade administration?

Expanding profits is an important theme of corporate management



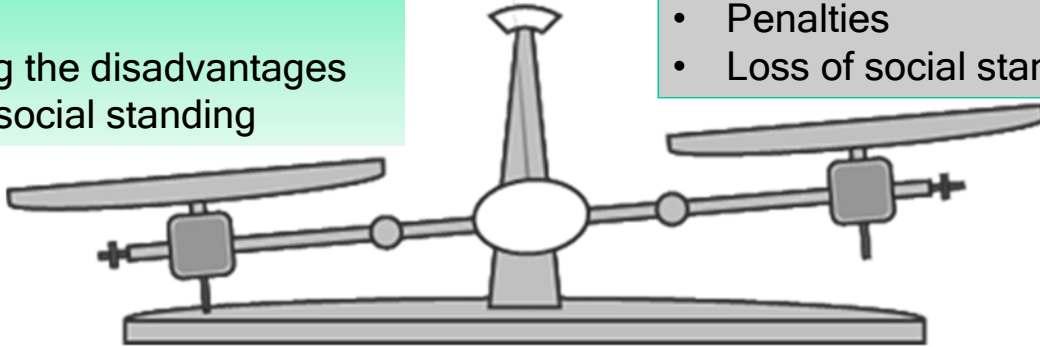
Actively engage in enjoying the benefits

Benefits:

- Avoiding the disadvantages
- Rise in social standing

Disadvantages:

- Penalties
- Loss of social standing



II. What is important for the basis of security trade administration (Personal Opinion)

3. Examples where execution is not simple

Disadvantages:

- Penalties
- Loss of social standing

occur infrequently, generally speaking

Therefore,

Benefits:

- Avoiding the disadvantages
- Rise in social standing

are hard to come by



Presence of cognitive bias

Trying not to think of the worst case.

Underestimating the possibility of catastrophic events that rarely occur.



## II. What is important for the basis of security trade administration (Personal Opinion)

### 4. What is most important to improve effects

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**Leadership is required to reform the consciousness**

“Prepare for the million-to-one (risk),  
put in concrete measures!”

## II. What is important for the basis of security trade administration (Personal Opinion)

### 5. Demonstrate ‘leadership’

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It is important for the top management to appeal  
the importance of security trade administration.



**BUT**

It is not enough to express commitment alone.

It is necessary to demonstrate leadership that can transmit concrete and timely instructions based on accurate current situation analysis.

For example, merely saying “let's grow sales” or “let's grow profits” is not management.

An appropriate status analysis (environment recognition, analysis of company's strengths and weaknesses) and instructions based on concrete management plan must be conducted.

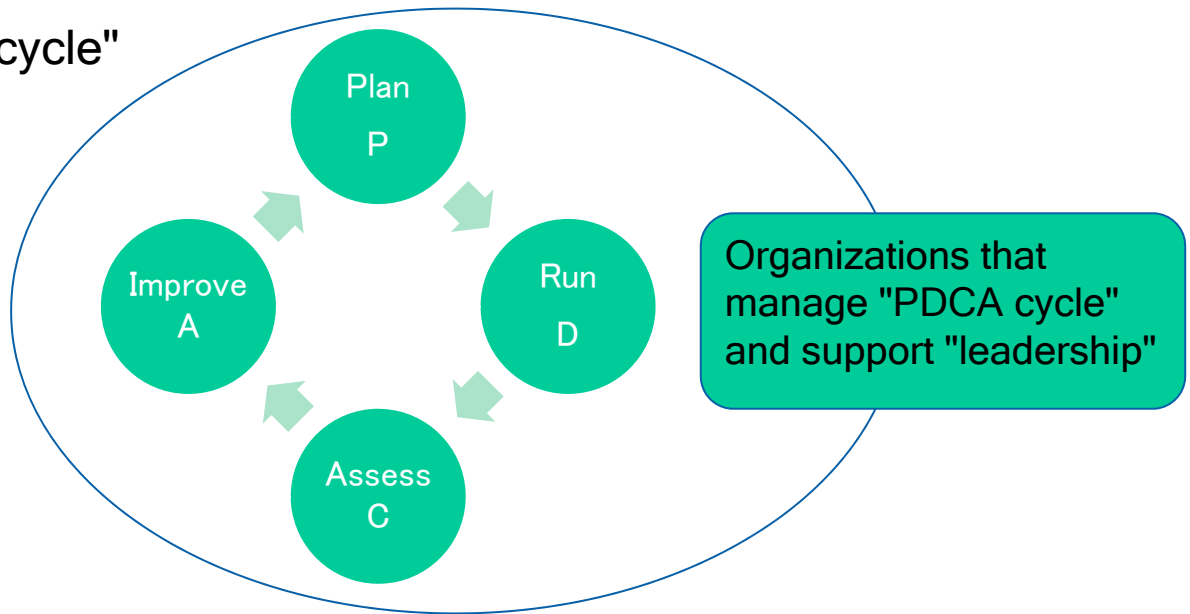
## II. What is important for the basis of security trade administration (Personal Opinion)

### 5. Demonstrate 'leadership'

The same approach as management is necessary for security trade administration.

- Reducing risk is one of important management tasks.
- Recognize (assume) the risk (for the company) and visualize it.

#### "PDCA cycle"



## II. What is important for the basis of security trade administration (Personal Opinion)

### 6. Efforts needed to support "leadership"

Report information necessary for demonstrating leadership to the chief executive of security trade administration openly and without delay.

- ① Regularly report on the trends of revision of laws and the state of implementation of security trade administration (problems to be improved, actual results etc. grasped from various examinations etc).
- ② Conduct audits to extract business procedures to be improved, the responsibility system of the department, the problem of the practical knowledge level of the individual, etc., formulate an improvement plan, execute it, evaluate it, and report the details of improvement guidance.
- ③ Quickly grasp the cases of incident (violation of laws) and near-misses, drill down on essential causes, plan effective preventive recurrence prevention measures, and follow up the implementation situation.



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## III. Examples of Toray Initiatives 1: Risk visualization

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#### 1. Visualization of “risks from violations”

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##### (1) Periodic audit

Auditing standards and audit procedure manuals are established and made public, and the focus of each audit encourages site management

##### ■ Document audit

Thanks to document audit, we grasp the situation of security trade administration of all our headquarters (departments) and domestic affiliated companies which export.

##### ■ Site audits

◆ Based on the results of the document audit, we confirm the hearing and evidences to the departments selected by the company-wide secretariat and domestic affiliated companies in accordance with the "Security Trade Administration Auditing Standards".

◆ For on-site audits, necessary checks such as confirmation of the execution situation of guidance items from past field surveillance, daily internal application etc., and follow-up of measures to prevent recurrence of incidents, are carried out jointly.

## 1. Visualization of "risks from violations"

### (2) Reporting system on incidents, near-incidents

Regarding incidents in security trade administration (actual violation and suspected violation of laws and regulations which require report to METI), and near-incidents (cases that did not result in an incident) in order to grasp the risk occurrence at an early stage and to take appropriate actions, we have developed a special reporting system that requires prompt reporting.

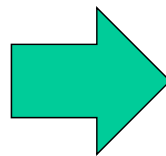
- ◆ December 2007 Trial of reporting system
  - ◆ May 2008 Full-scale enforcement, including affiliated companies.
  - ◆ June 2011 Review based on the guidance of METI
- ① When aware of an incident (violation of laws) or a near-incident, submit a flash report without taking time to verify.
  - ② Add the manager responsible for security trade administration to the address of the report so that you can grasp the situation from the time of the discovery.
  - ③ Regarding incidents (violation of laws and regulations) and near-incidents, we will follow up continuously and thoroughly by document audits and on-site audits, taking measures to prevent recurrence.

## 2. Assumption and sharing of "risks subject to fraud procurement"

### (1) Assumptions of backgrounds targeted for fraudulent procurement

#### List regulated items and advanced materials that make money

Carefully confirm before selling points such as "what kind of use is intended", "whether it is really a consumer or not", and "whether there are concerns about the consumer"



A consumer appears who cannot purchase from an authorized supply chain

**It is inevitable to assume "a strong demand to purchase by any means, without caring where the money comes from, seeking procurement by any route"**

### III. Examples of Toray Initiatives 1: Risk visualization

## 2. Assumption and sharing of "risk of fraudulent procurement"

### (2) Hypothetical list-controlled goods and advanced materials cases

1. Case targeted for fraudulent procurement	List-restricted items and state-of-the-art materials, due to their superior performance, targeted as being at risk of fraud procurement aimed at development of weapons of mass destruction (nuclear weapons, biological and chemical weapons, missiles) and modernization of armaments (performance improvement, cost reduction)
2. Case of supply to improper usage / destination	Since there is a list-controlled goods "black market (including B2B sites on the Internet)" where diverted goods, stolen goods, waste, etc. is traded for high prices, there is a possibility that the consumer may exchange diverted goods for cash or may find their way onto the "black market" from a bankrupt consumer's inventory. Also, because the existence of such a "black market" requires that consumers' inventory management and production control be lax, there is a risk of inducing employee pilfering and theft by outside persons.
3. Case of domestic consumption impossible, illegal export	Due to the high demand overseas, there is a danger that Japanese brokers may acquire on the premise of consumption in Japan but then make illegal export without permission.

### III. Examples of Toray Initiatives 2: Access improvement

## 1. What is the "hurdle"?

### (1) Examples of companies that lack resources

#### Expected behavior by companies

- Strive to acquire necessary legal knowledge.
- Decide who is responsible and develop management system.
- Formulate CP, manual, and forms.
- Implement appropriate management on a daily basis.

#### <Pressure on companies>

- Comply with the laws on security trade administration.
- Penalties imposed for violations.
- CP enacted and guidance to improve the management system.

#### Examples of companies that lack resources

- Lack of leadership
- Lack of outstanding management staff
- Lack of support tools
- Lack understanding of laws & ordinances

## 1. What is the "hurdle"?

### Case studied by on-site audit

- I have basic knowledge but I cannot organize what I should start with at my company and cannot materialize it. I have no confidence.
- It should be addressed non-judgmentally, but I am not used to it, there are many cases, and the judgment is abandoned.
- We created our own version with reference to the model CP and model manual, but we do not manage based on the manual because we do not know the meaning of the management procedure.
- We are doing business based on our own unofficial, simplified procedure manual.
- I received requests from customers and issued a non-applicable certificate. I presumed it to be non-pertinent, and it seemed the stakeholders had no problem, so I issued it. I have not left a record and did not double check.

**What is becoming a hurdle ⇒ We need efforts to improve access**

### III. Examples of Toray Initiatives 2: Access improvement

## 2. What is necessary to improve access?

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### Requirements for "access improvement" recognized by on-site audit

- Tools required
  - ⇒ To promote corporate efforts, easily understandable specific laws and guidance must be developed.
  
- Training (practice) required
  - ⇒ It is difficult to develop a manner of management according to an actual situation of the company, so training is necessary.
  
- Hands-on improvement needs guidance
  - ⇒ Since we cannot properly self-diagnose the management situation of our company, we cannot improve autonomously. External support is necessary.

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### III. Examples of Toray Initiatives 3: The importance of double check

### III. Examples of Toray Initiatives 3: The importance of double-check

#### 1. It is difficult to make "double check" function.

##### Case studied by on-site audit

- The person who carries out the double check does not have the knowledge necessary for practical use and cannot understand the contents declared by the applicant. Or, since it cannot be evaluated properly, he/she checks only that there is nothing missing.
- If you look at it you can see immediately that "misprint" and "inconsistency between declared items" are overlooked.
- The applicant does not describe or attach the necessary information for the judgment of the double check executor.
- Double check practitioners are not confident about their practical knowledge, and, even if there is doubt, they do not examine the applicant's declaration contents.

### III. Examples of Toray Initiatives 3: The importance of double-check

#### 2. Measures to make "double check" function

##### Toray basic principle to make "double check" function

- The applicant and the administrator to check clarify what to keep in mind, formulate the necessary educational program, and conduct training.

It is an appropriate judgment, whoever verifies it, and it is important that it be clearly written down in order to not give different results.

- ① Is the object of the judgment clear?
  - ② Is it clear what kind of information & evidence it is based on?
  - ③ Are declared facts consistent with evidence?
  - ④ Is the judgment reason concretely described in an easy-to-understand manner?
  - ⑤ Is the judgment result clear? Is it appropriate?
- We upgrade the educational program based on cases gathered by screening and on-site audits and make sure that "double check" always works.

**It is important to create a reproducible record (verifiable record), whoever sees it and however it is judged.**



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Thank you for your attention.

I will be pleased if we have helped in the spread of security trade administration in your company in any way.

**'TORAY'**  
**Innovation by Chemistry**