# Bab VI : IT Policy Compliance

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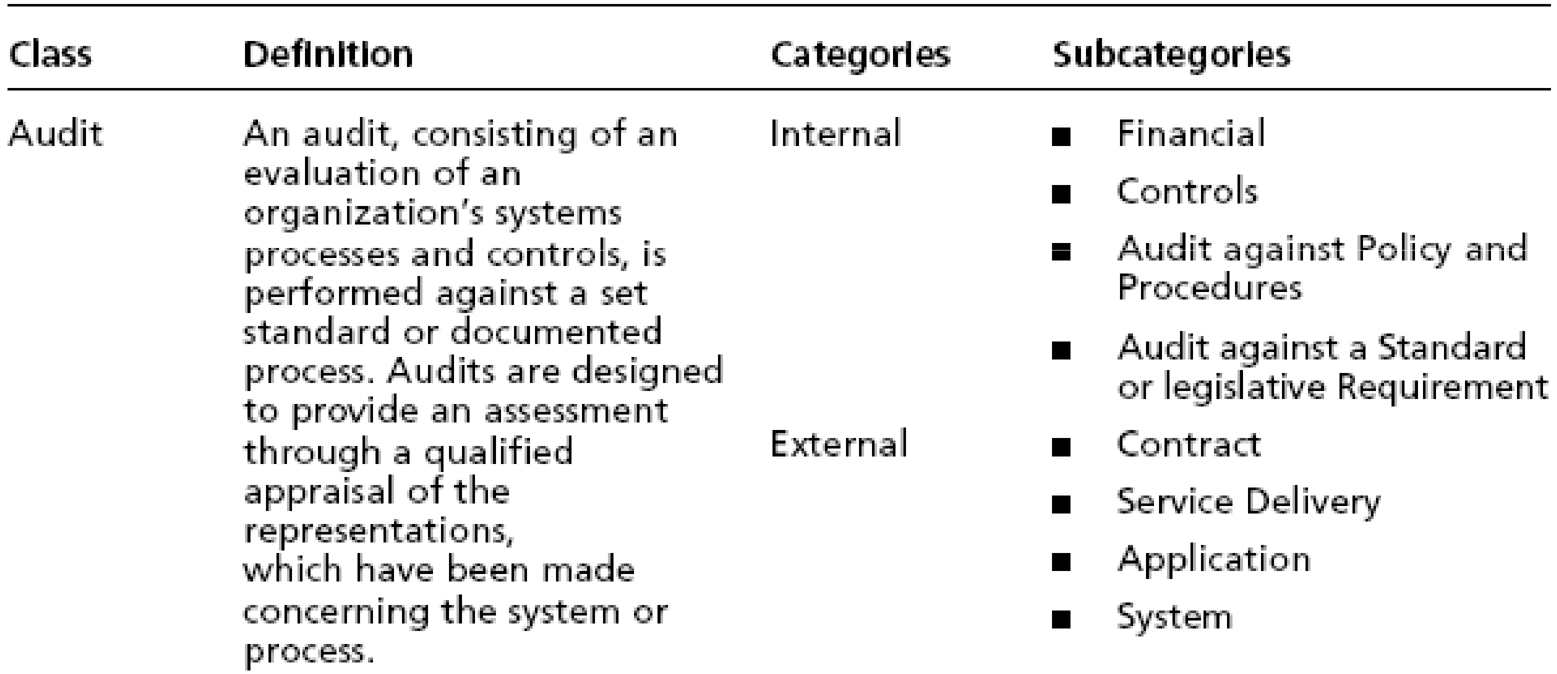
# IT Compliance



| Class | Definition | Categories | Subcategories |
|---|---|---|---|
| Audit | An audit, consisting of an evaluation of an organization's systems processes and controls, is performed against a set standard or documented process. Audits are designed to provide an assessment through a qualified appraisal of the representations, which have been made concerning the system or process. | Internal | ■ Financial<br>■ Controls<br>■ Audit against Policy and Procedures<br>■ Audit against a Standard or legislative Requirement |
| | | External | ■ Contract<br>■ Service Delivery<br>■ Application<br>■ System |

# IT Compliance (2)

Assessment

Numerous “*audits*” are provided without certification, these however are qualified reviews.

Vulnerability Assessment

- Tools Based System Scan
- Vulnerability Analysis

Qualified Review

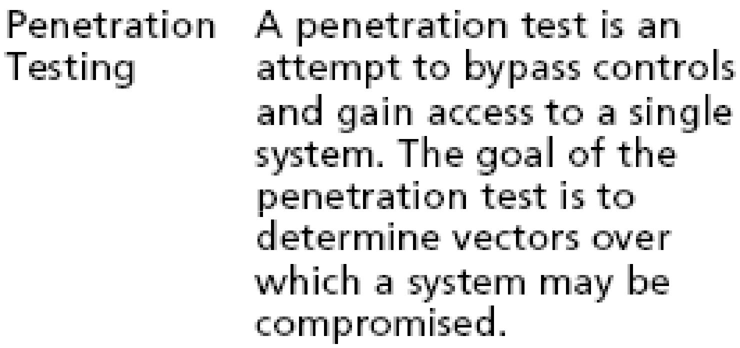
- Ethical Attack
- penetration test

- Gap Analysis
- Controls Assessment
- Threat / Risk Assessment

Inspection

An inspection captures the state of security at a point in time. An inspection is generally used as a part of the audit process to test controls.

# IT Compliance (3)



| | |
|---|---|
| Penetration Testing | A penetration test is an attempt to bypass controls and gain access to a single system. The goal of the penetration test is to determine vectors over which a system may be compromised. |

- Ethical Attack
- Grey Hat Verification
- penetration test

The nature of the testing is such that a failure to uncover any vulnerabilities does not imply that the system is secure

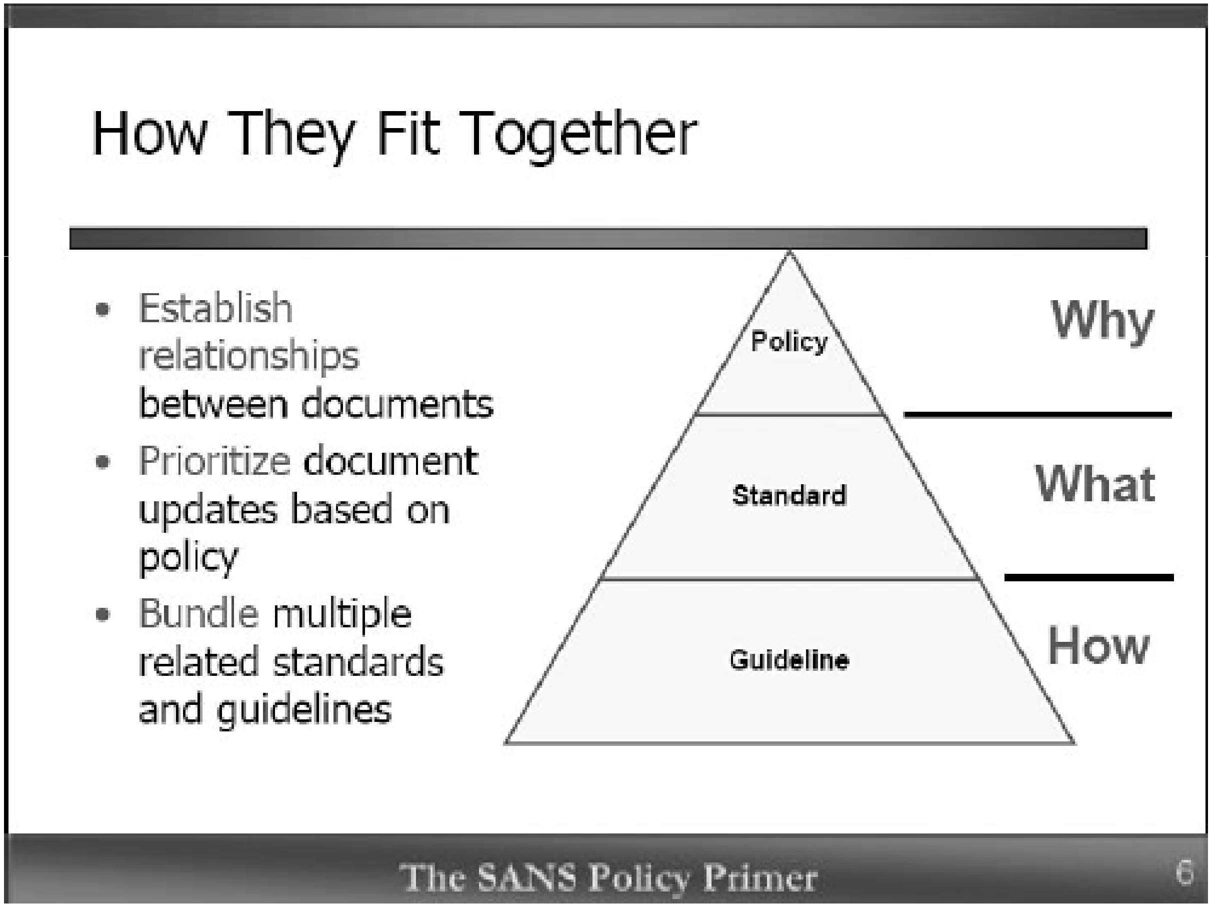
# Policy

- **Policy protects people and information. Without policy the organization is like a ship without a rudder. Most critically, policy is the primary guideline against which an audit is conducted. If the policy and procedures are lacking, the audit will also lack rigor.**
- **SMART methodology consists of the following components:**
  - **S**pecific Detail each component
  - **M**easurable Ensure that your record sizes, times and other relevant material
  - **A**chievable Ensure that you have the resources to achieve your objectives
  - **R**ealistic Report the facts; don't speculate
  - **T**ime-based Both work to time constraints and deadlines and ensure that you recorded all the events as they have occurred on the system.

# IT Policy

- Compliance
- Security
- Standards and Frameworks : CIS, CobIT
- regulations
- related professional associations

# Policy Standard and Guidelines



## How They Fit Together

- Establish relationships between documents
- Prioritize document updates based on policy
- Bundle multiple related standards and guidelines

Policy — Why

Standard — What

Guideline — How

The SANS Policy Primer 6

# Compliance (Kepatuhan)?

- Compliance berarti kepatuhan (Conformity) atau bertindah sesuai standar yang ditetapkan
- Compliance bisa berupa peraturan-peraturan yang membuat suatu perusahaan dapat beroperasi
- Secara praktris compliance diartikan dengan kepatuhan terhadap hukum
- assisting IT management and auditing professionals in meeting compliance requirements.

# IT Policy  Compliance

- ***IT policy compliance is the implementation and management of* information technology in accordance with accepted standards.**
- **The applicability of standards to your organization depends on a variety of factors, including:**
  - The nature of your business.
  - The types of data being processed by your organization.
  - The risks that apply to your environment.

# Standard and Framework

source: http://www.itpolicycompliance.com/resources/standards_and_frameworks_links/

- CIS (Center for Internet Security)
- CobIT
- CVE (Common Vulnerabilities and Exposures)
- Guide to Assessment of IT General Controls Scope based on Risk (GAIT)
- Global Technology Audit Guide (GTAG)
- HIPAA
- ISO 27000 and ISO 27001
- ISO 38500 for IT Corporate Governance
- ITIL
- NERC
- NIST

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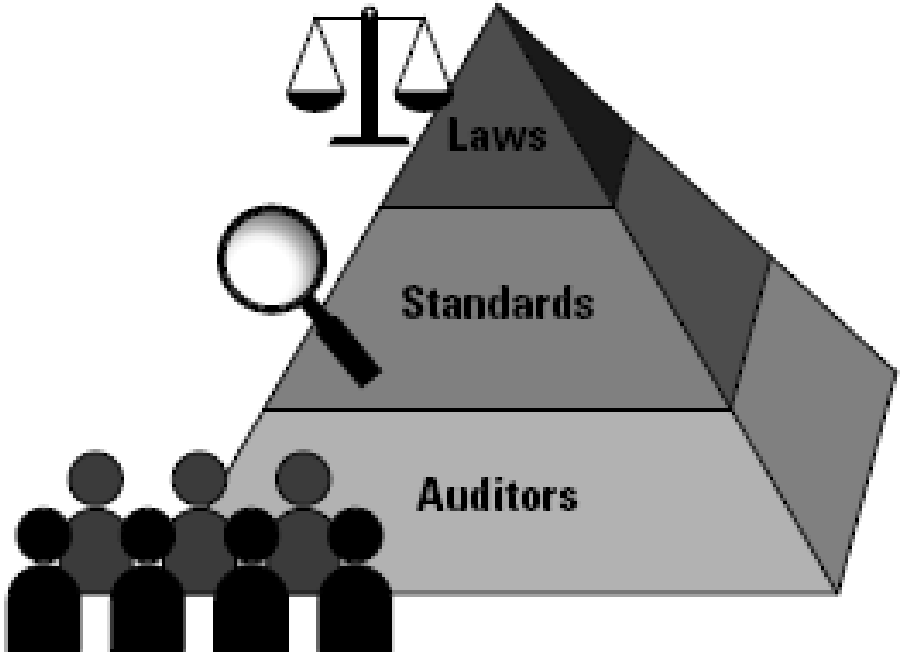
# Benefit of apply IT Policy Compliance

- Monitor a larger range of transactions, controls, and systems than a person could ever assess using a manual process.
- Provide a level of consistency that eliminates the subjectivity of human review.
- Run metrics and reports that ultimately help you manage the quality of both your compliance program and operations overall.

# Ecosystem in IT Policy Compliance

- Organizational strategic objectives.
- User awareness and training.
- High-level policies.
- Procedures and standards.
- Configuration settings.
- Technology controls.
- Ongoing monitoring.
- Business risk assessments.
- Internal and external auditors.

# Regulations vs. Standards vs. Auditors



# example sources of government and industry standards that affect IT policy compliance

- Control Objectives for Information and Related IT (COBIT).
- National Institute of Standards and Technology (NIST) standards.
- International Standards Organization (ISO) 27001.
- Information Technology Infrastructure Library (ITIL).
- Payment Card Industry Data Security Standard (PCI DSS).
- NERC Critical Infrastructure Protection (CIP) standards.
- Federal Financial Institution Examination Council (FFIEC) Information Security Book.
- Security Content Automation Protocol (SCAP).

# Examples of government- and industry-certified auditors responsible for verifying IT policy compliance

- Internal auditors employed by an organization.
- Certified Public Accountants (CPAs).
- Bank auditors, such as those from the Federal Reserve,
- Federal Depository Trust Corporation (FDIC), and Officeof Comptroller of the Currency (OCC).
- Payment Card Industry (PCI) Qualified Security Assessors (QSAs)./

# Making Sense of It All

- What law(s) apply to my company or agency?
- What standards help to guide us toward compliance with those laws?
- What type of audits and assessments are required for compliance?
- What controls do we need in place to meet policyrequirements?
- What evidence do we need to substantiate compliance to auditors?

# examples of areas of responsibility and the related laws that affect IT policy compliance (US)

- Financial reporting and accountability: Sarbanes–Oxley Act of 2002.
- Non-public personal information, including financial information: Gramm – Leach-Bliley Act of 1999 (GBLA).
- Protected health information: Health Insurance Portability and Accountability Act of 1996 (HIPAA).
- Energy regulation and authority of federal agencies such as U.S. Federal Energy Regulatory Commission (FERC) and North American Electric Reliability Corporation (NERC): Energy Policy Act of 2005.
- Personal information breach notification: California SB 1386 and the American Recovery and Reinvestment Act of 2009 (ARRA).
- Government computer security: Federal Information Security Management Act of 2002 (FISMA).
- Personal data: UK Data Protection Act of 1995.

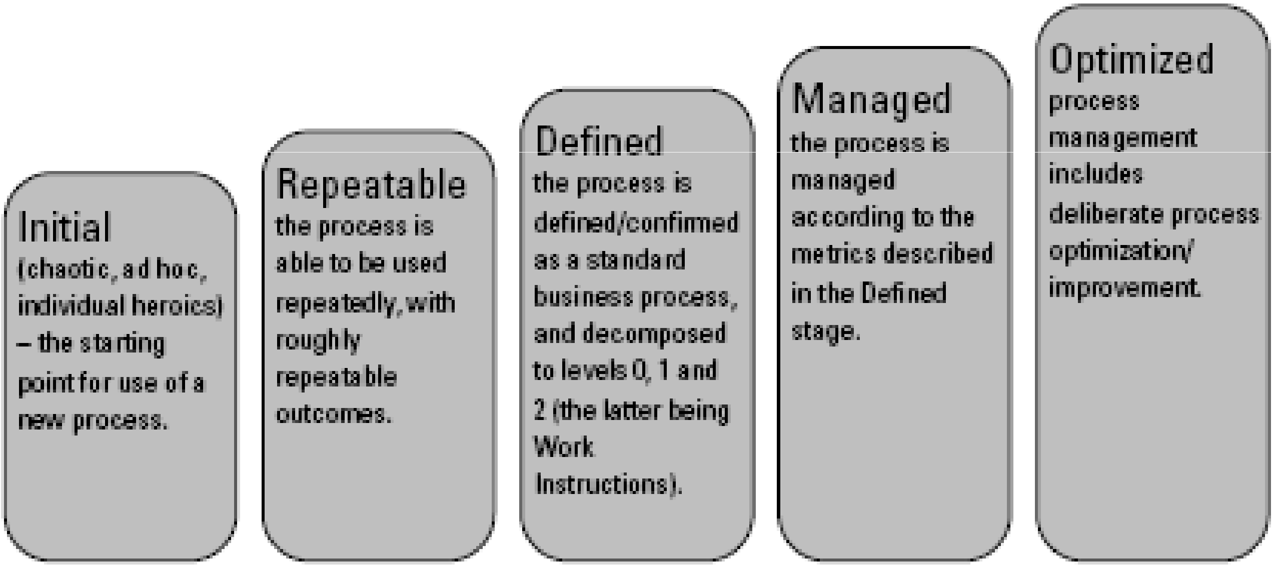
# Step by step making and implementing IT Policy

1. Determine the policy problem : content and environ. aspect
2. Using standar
3. Sensitivity of  policy
4. Ecosystem of policy
5. Implementing strategy

# Audit Risk

- Audit risk = Inherent risk × Control risk × Detection risk
- *Inherent risk means things that are built into the audit* situation and that the auditor doesn't control, such as type of business, type of activity, or other environmental factors.
- *Control risk refers to the likelihood that the control* environment won't detect or prevent an error or misstatement. When the client designs a better control environment, it automatically reduces control and audit risks.
- *Detection risk is the likelihood that an error or misstatement* won't be captured by an auditor's testing. This area of audit risk is the one over which an auditor has the most control.

# Align IT Policy Compliance and Security with the Business



Initial
(chaotic, ad hoc, individual heroics) – the starting point for use of a new process.

Repeatable
the process is able to be used repeatedly, with roughly repeatable outcomes.

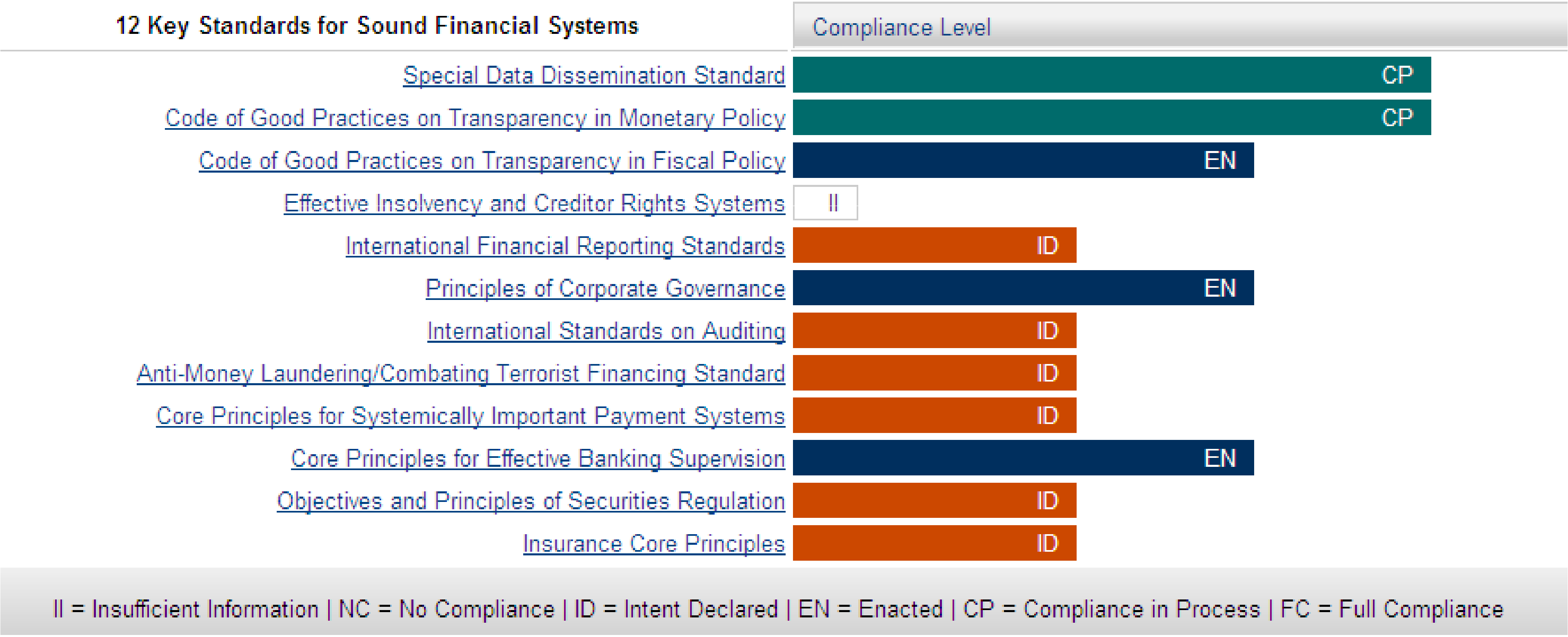
Defined
the process is defined/confirmed as a standard business process, and decomposed to levels 0, 1 and 2 (the latter being Work Instructions).

Managed
the process is managed according to the metrics described in the Defined stage.

Optimized
process management includes deliberate process optimization/ improvement.

**Figure 3-1:** The SEI Common Maturity Model.

# Indonesia 12 Key Standard for financial system



| 12 Key Standards for Sound Financial Systems | Compliance Level |
|---|---|
| Special Data Dissemination Standard | CP |
| Code of Good Practices on Transparency in Monetary Policy | CP |
| Code of Good Practices on Transparency in Fiscal Policy | EN |
| Effective Insolvency and Creditor Rights Systems | II |
| International Financial Reporting Standards | ID |
| Principles of Corporate Governance | EN |
| International Standards on Auditing | ID |
| Anti-Money Laundering/Combating Terrorist Financing Standard | ID |
| Core Principles for Systemically Important Payment Systems | ID |
| Core Principles for Effective Banking Supervision | EN |
| Objectives and Principles of Securities Regulation | ID |
| Insurance Core Principles | ID |

II = Insufficient Information | NC = No Compliance | ID = Intent Declared | EN = Enacted | CP = Compliance in Process | FC = Full Compliance

source: http://estandardsforum.org/indonesia/standards

# Level of Compliance

| | |
|---|---|
| Full Compliance | 10 points |
| Compliance in Progress | 8 points |
| Enacted | 6 points |
| Intent Declared | 3 points |
| No Compliance | 1 points |
| Insufficient Information | 0 points |

# Compliance Factor

| Indicator | Best Practice Benchmark | Points |
|---|---|---|
| 1. Economic Model | Market-based economy | 1 point |
| 2. FOREX Regulations | No Capital Controls | 1/2 point |
| | No Exchange Controls | 1/2 point |
| 3. Foreign Investment Law | Yes, adequate Foreign Investment Law | 1 point |
| 4. Trade Regulation | No Import Regulation | 1/4 point |
| | No Protective Tariffs | 1/4 point |
| | Yes, Export Incentives | 1/4 point |
| | No Export Disincentives | 1/4 point |
| 5. Tax Regime | Creates Incentives for Investment | 1 point |
| 6. Tax Rates | Low / Competitive | 1 point |
| 7. Bankruptcy Indicators/ Property Rights | Established | 1 point |
| 8. International Dispute Settlement | Credible History/Marginal Success | 1 point |
| 9. Political Environment | Positive Commitment to globalism by ruling authority | 1/3 point |
| | Positive Attitude toward utilization of global resources to promote growth | 1/3 point |
| | Positive Commitment to globalism by political opposition | 1/3 point |
| 10. Political Stability | Yes, for foreseeable future | 1 point |
| 11.Corruption | No Concern | 1 point |
| 12. Adherence to global labor standards | Complies | 1 point |