



ASEAN INSTITUTIONAL INVESTORS FORUM*

14 June, 2019 | 7:30 – 12:15 hrs.
A505, 5th Floor of Tower A
The Stock Exchange of Thailand

Rationale for ESG Investing



Approaches to ESG Investing



GPF - ESG Integration Framework

- Broad Policies & Practices
- Value/Norms



- ESG-Integrated Investment Manual
- Negative List Guideline
- ESG Voting Policy
- PRI Signatory



- Equity ESG Focused
- 100% ESG in Thai Equity
- Green Bond (EM Debt)
- Global ESG Equity Portfolio

- Investment Analysis & Decision-making Process



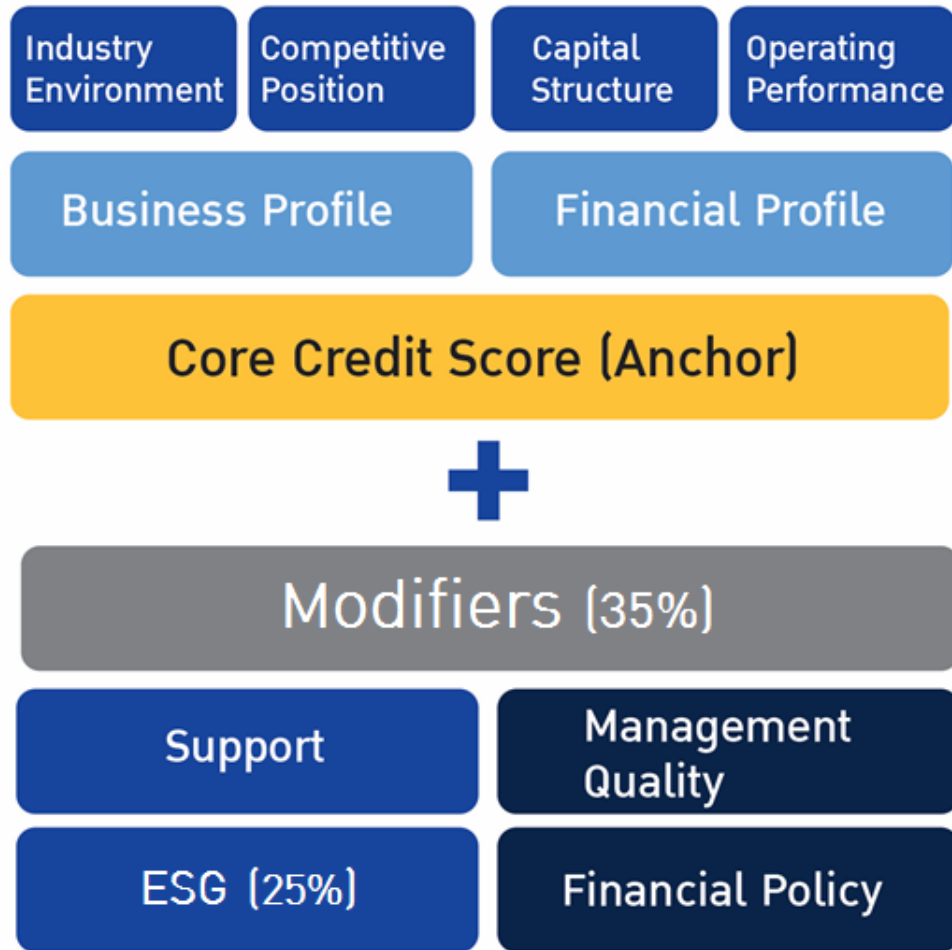
- ESG Due Diligence (Managers & Investees)
- Fixed Income Scoring (Spread) I
- Equity Valuation II
- ESG Benchmark
- External Fund Manager Selection (10% Weight) III

- Active Ownership
- Proxy Voting
- ESG Disclosure



- Active Engagement in ESG Issue
- Proxy Advisors
- Green Buildings

I. ESG in Fixed Income Scoring

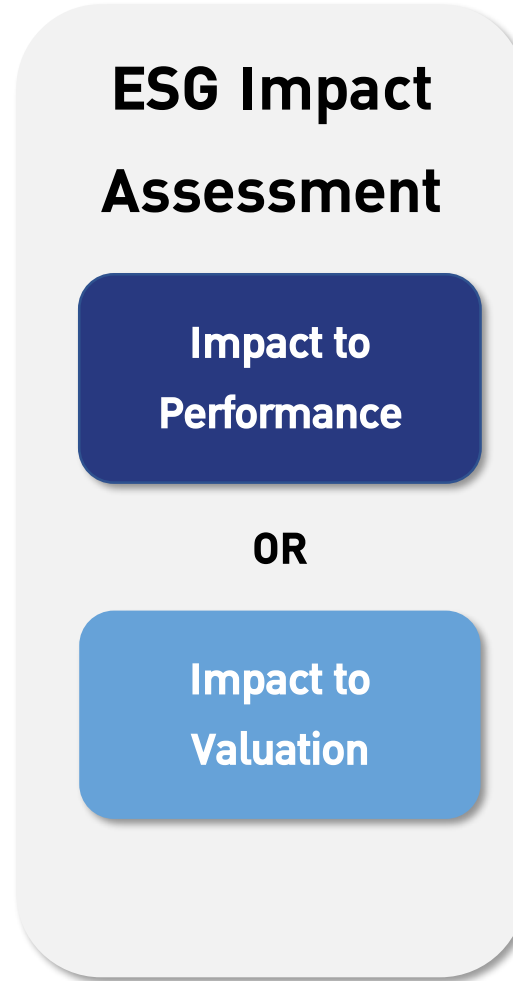
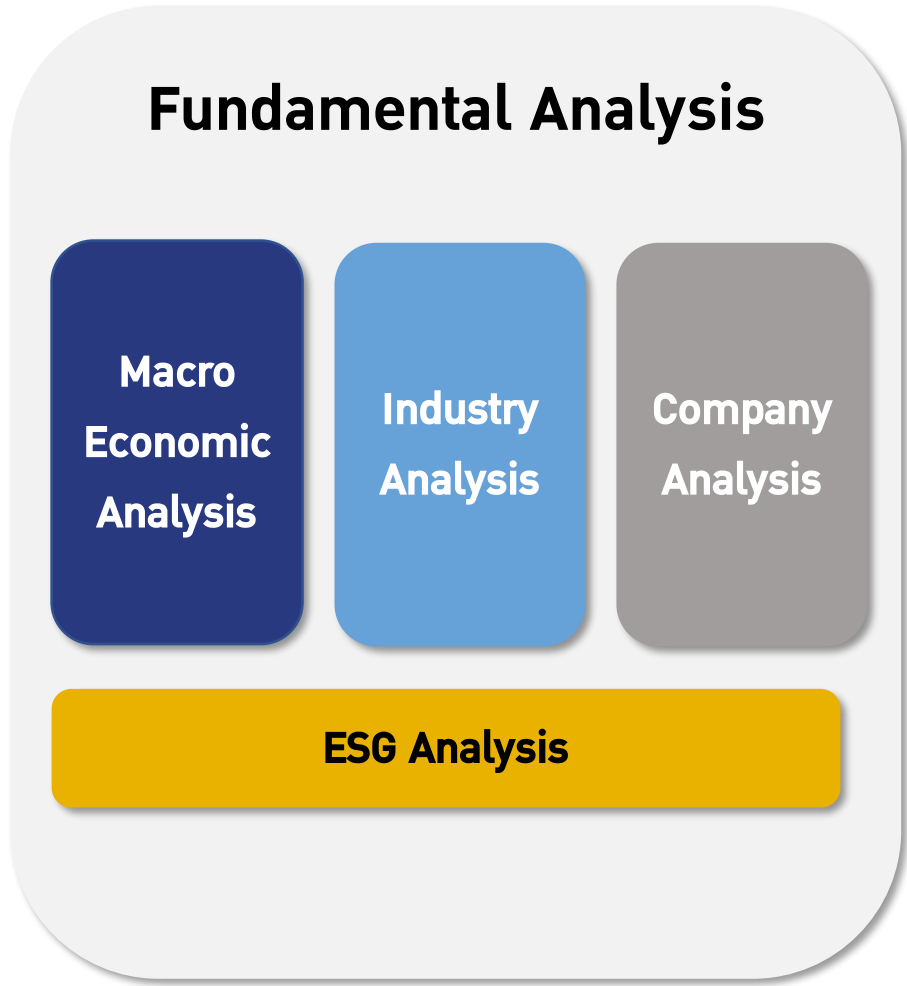


Illustrative Examples

| Rating | Company | Core Credit Score | Modifiers | Total Score |
|--------|-----------|-------------------|-----------|-------------|
| A | Company 1 | 3.30 | 2.65 | 3.07 |
| A+ | Company 2 | 2.76 | 3.45 | 3.00 |
| A | Company 3 | 2.92 | 3.05 | 2.97 |
| A+ | Company 4 | 2.65 | 3.30 | 2.87 |
| A+ | Company 5 | 2.60 | 3.35 | 2.86 |



II. ESG in Equity Valuation



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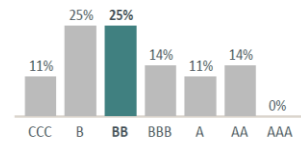
Illustrative Example

| | | |
|----------------|--|------------|
| EARNING REVIEW | | 4Q18 |
| COMPANY: XYZ | | Overweight |

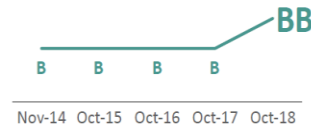
ESG SCORE CARD*

| | WEIGHT | SCORE | QUARTILE |
|-----------------------------|--------------|------------|----------|
| Environment | 64.0% | 4.2 | |
| Toxic Emissions & Waste | 20.0% | 2.2 | •• |
| Carbon Emissions | 16.0% | 6.4 | ••• |
| Water Stress | 16.0% | 5.2 | ••• |
| Opportunities in Clean Tech | 12.0% | 3.4 | •• |
| Social | 20.0% | 1.4 | |
| Chemical Safety | 20.0% | 1.4 | • |
| Governance | 16.0% | 5.0 | |
| Corporate Governance | 16.0% | 5.0 | ••• |

INDUSTRY RATING DISTRIBUTION



ESG RATING HISTORY



| | |
|--|---|
| ESG Materiality: | |
| - Business Ethics, Integrity and Transparency | - All new employees are required to undergo mandatory and other supplementary programs, including ethics, code of conduct, anti-corruption and other required regulatory compliance requirements. |
| - Corporate Governance | - To embed zero corruption, transparent business ethics and conduct, and compliance with the laws, regulations, and corporate governance principles in the organizational culture. |
| - Risk and Crisis Management | - XYZ has carried out Climate Change Risk and Opportunity analyses including risks relating to water, shadow pricing analysis and its implications on business profitability. |

ESG Issues and Comments:

- MSCI has been upgraded XYZ's ESG to "BB" in Nov. 2018 as its revised the CO2 reduction target from 6% to 12%. XYZ also adopted water risk assessment and reduced its water intensity from 6,000 m3/million USD in 2016 to 5,800 m3/million USD in 2017.
- XYZ's exposure to regulatory risks and potential reformulation costs is determined to be high. Based on MSCI report, XYZ commits to integrate environmental or health standards in product design, and development of replacing hazardous constituents with lower toxic materials, but the company does not appear to have a comprehensive strategy and on-going program of phasing-out chemicals of concern.
- XYZ faces high risks of environmental liabilities and compliance costs due to toxic emissions and waste. Though its emission intensities are below the MSCI ACWI Commodity Chemicals sub-industry average, it doesn't have quantitative emission reduction targets unlike its leading peers.

| ESG IMPACT TO PERFORMANCE | | | | |
|---------------------------|--|-------------------------|---------------------|-------------------|
| ESG FACTOR | PERFORMANCE | IMPACT ON VALUE DRIVERS | | |
| Environmental | Recycling operations are becoming an important and growing part of business. | EBITDA increase +5% | | |
| Social | No material issue at the moment. | No adjustment | | |
| Governance | No material issue at the moment. | No adjustment | | |
| ESG IMPACT TO VALUATION | | | | |
| VALUE DRIVER | | WACC | Impact to valuation | Target price (Bt) |
| | EBITDA to improve approx. Bt400mn/year from recycling business | 0% | +0.9% | +0.5 |
| Total | | 7% | | 62.0 |

III. ESG in External Fund Manager Selection

| Factors | Old | New |
|--------------------|-------------|-------------|
| • Business Profile | 10% | 10% |
| • People | 25% | 30% |
| • Process | 40% | 25% |
| • Performance | 20% | 20% |
| • Service | 5% | 5% |
| • ESG | - | 10% |
| | 100% | 100% |

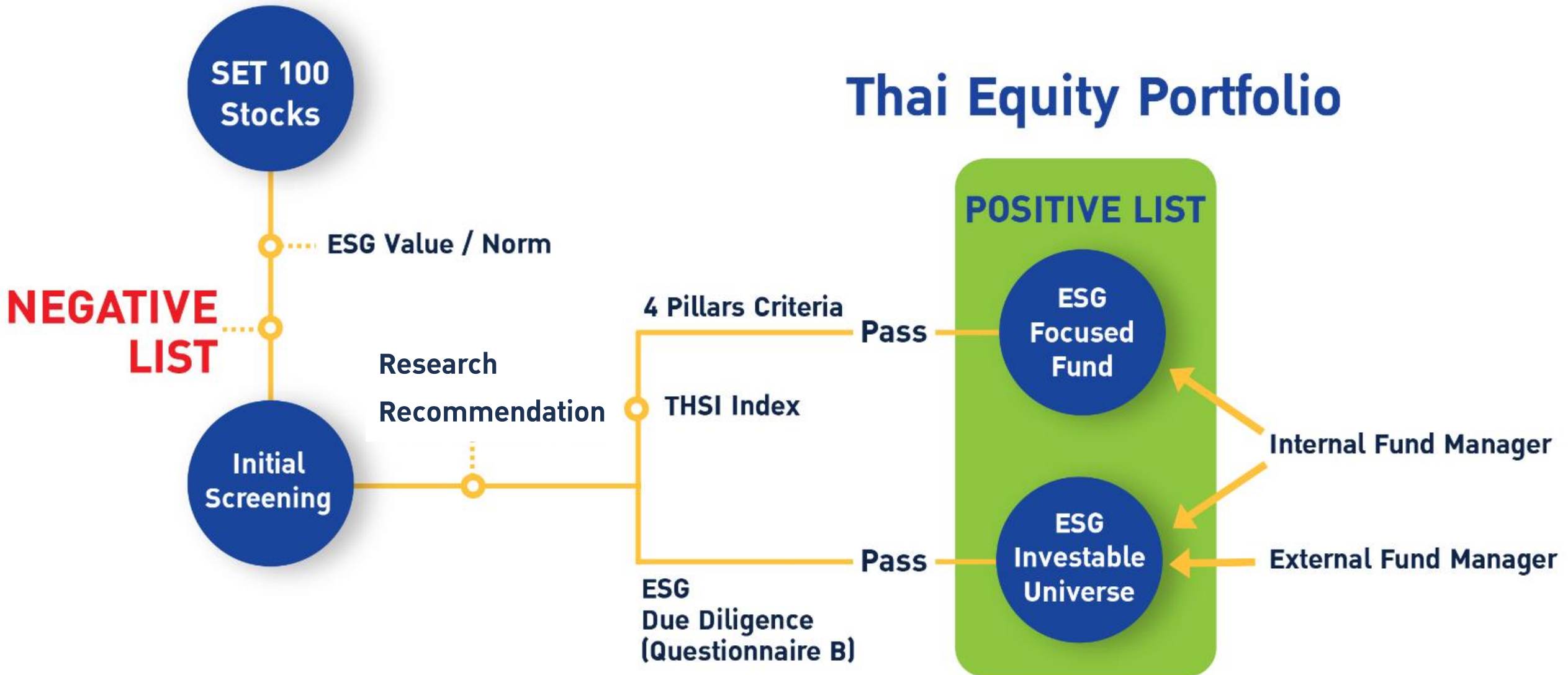
The Next Chapter

1. 100% ESG in Thai Equity

2. Collaborative Engagement

3. Strengthening ESG Ecosystem

1. 100% ESG in Thai Equity



POSITIVE LIST

I. ESG-Focused Portfolio

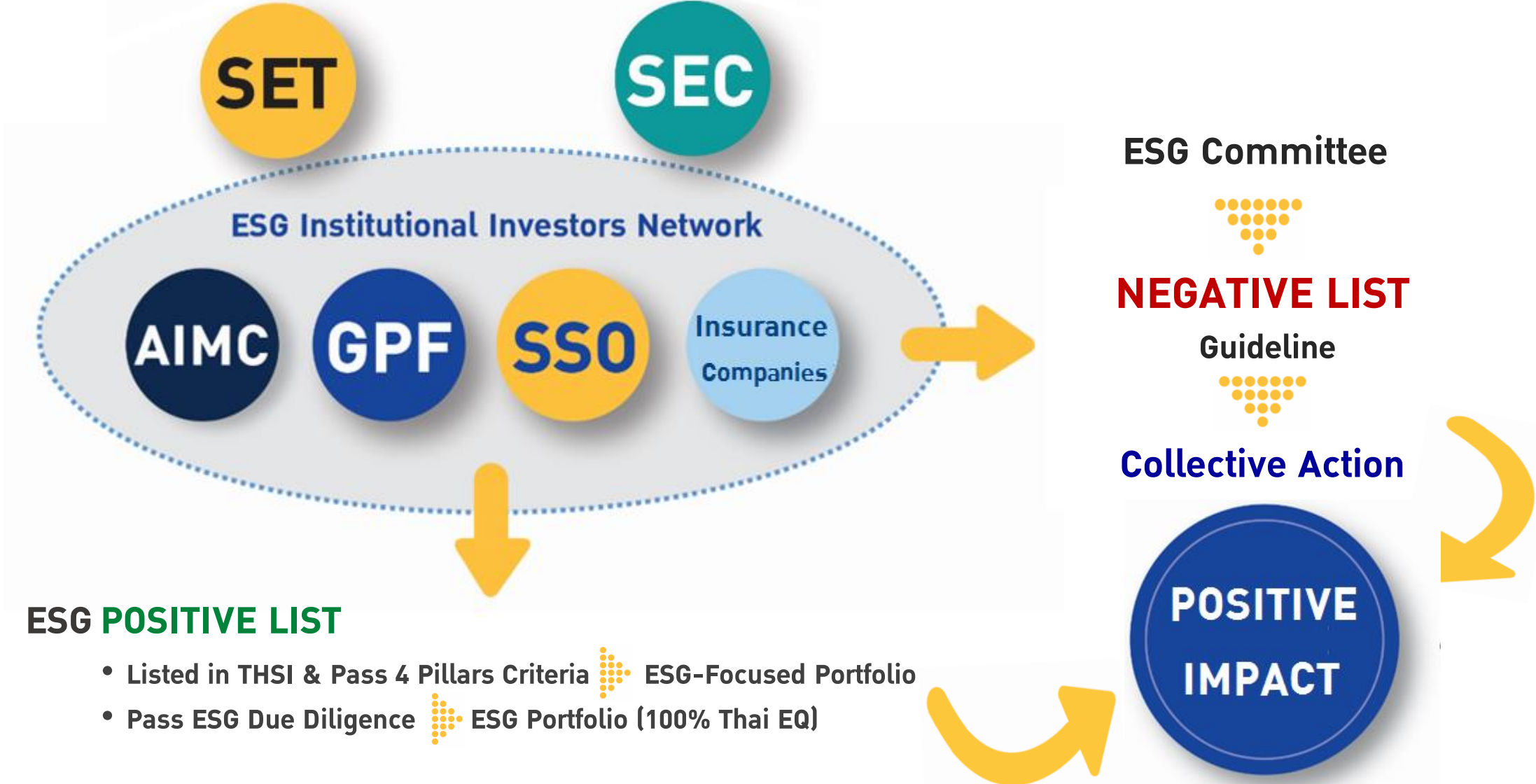
- Listed in THSI
- 4 Pillars Criteria - **PASS**



II. ESG Investable Universe

- ESG Due Diligence - **PASS**

2. Collaborative Engagement



NEGATIVE LIST Guideline

Negative List:

List of companies not to additionally invest.
(Exclusion from investment universe)

No Investment Period:

3 - 6 months.

Universe:

Listed companies in SET index.

Issue of Concern:

- Violation of Securities and Exchange Act.
- Violation of other laws.
- Material ESG problem.
- Inadequate internal control system.
(Materially impact to retail investors)

3. Strengthening ESG Ecosystem

