

IMPACT SHEET • SWITCH-ASIA PROJECT
**GREENING OF THE THAI AUTO AND AUTOMOTIVE PARTS
INDUSTRY**

**Promoting SCP to the supply chains
in the Thai automotive sector**



The project helped 78 SMEs achieved Green Industry Mark certification and increased access to green finance



The Challenge

Small and medium-sized enterprises (SMEs) in the fast-growing Thai automotive industry face many limitations regarding more sustainable production. Challenges include outdated production processes and technologies and a labour force lacking commitment to resource efficiency; limited access to financial services and a lack of green networks/supply chains; and a lack of show cases and policy support to promote greener production in the sectors. Specifically, the Thai automotive industry addresses issues where previous showcases utilising SCP tools in other sectors were not sufficiently compelling; loans from the SME Bank were not significantly more attractive than other offerings; and the “Green Industry Mark” labelling initiative by the Ministry of Industry lacking incentives to persuade SMEs to join. The “first car policy” and the 2 million-target ensured that SMEs had a high order volume in 2012.

Objective

The specific objectives were:

- To improve productivity and the environmental performance of Thai auto and automotive parts production;
- To enhance networks, businesses, and financial services for the greening of the Thai auto and automotive parts industry;
- To disseminate good practice and promote the development and implementation of related policy and economic instruments.

Activities / Strategy



Improving SMEs’ Productivity and Environmental Performance

The project implemented existing eco-efficiency tools and improvement measures through management training sessions and consultation services tailored to individual SMEs. These activities were directly linked with the Green Industry Mark initiative, and helped 500 SMEs to expand and intensify co-operation with service providers.



Creating SME-specific Financial Support Packages

SMEs often require access to financial services for larger SCP measures, so the project collaborated to extend existing financial services of the SME bank, e.g. a “Productivity Improvement Loan.” The idea was to adapt these services to better meet the needs of targeted SMEs, which, together with training and advisory services increased the overall credibility of SMEs.



Strengthening SCP-related Services and Networking

The project increased the consultancy capacities of existing service providers, specific to the needs of Tier 2 and 3 suppliers—both on technical, management and financial issues. It supported the SMEs within their networks in order to initiate or expand existing green supply chain efforts.

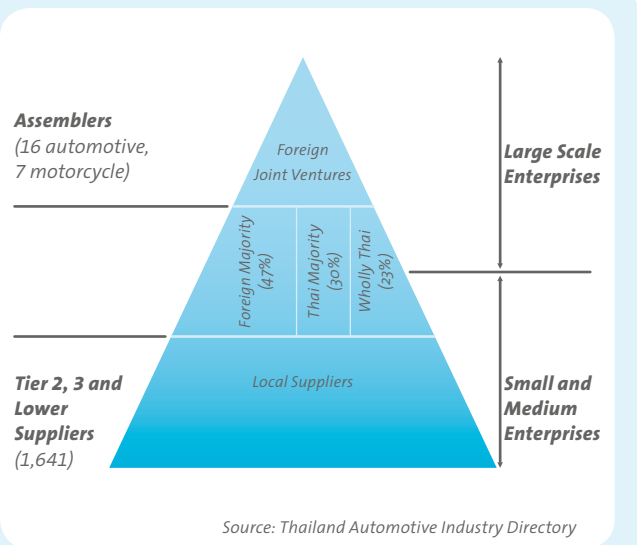


Developing Showcases and Policy Recommendations

The project disseminated good practise examples to the target groups and within the whole sector. It also organised forums for policy recommendations serving as input to the EU SWITCH-Asia Policy Support Component in Thailand. The project also shared lessons learned with other countries via the SWITCH-Asia Network Facility.

TARGET GROUPS

- 3 000 related companies in Thailand, of which more than 90% are SMEs
- The direct target groups of the project were 500 SMEs in Tier 2 and 3 organised either in supply chains, related associations, product clusters or industrial areas in six provinces.
- Industries covered included tyres, safety glass, lights, engines, batteries, input shafts and crank shafts. Despite the diversity, basic production processes are similar, such as stamping, forging, casting or machining.



Scaling-up Strategy

In addition to policy support, such as economic incentives, the replication and outreach strategies of the project were directly related to creating or expanding the markets for green auto and automotive parts.



Forming Service Hubs and Multipliers

The project adapted and implemented proven eco-efficiency tools and services, as well as providing training for trainers and consultants. It connected these providers with existing service structures, for example those of institutions and authorities.



Establishing Supply Chains and Creating New Markets

The project engaged multinational and Tier 1 companies to create green supply chains. Based on a pilot supply chain, further outreach to the entire sectors were undertaken. In order to further convince enterprises and local supply chains, the project facilitated in increasing the visibility/number of international buyers. The project initiated matchmaking events to increase the market opportunities for SMEs, e.g. for those who sought to align some of their products with higher standards and norms.



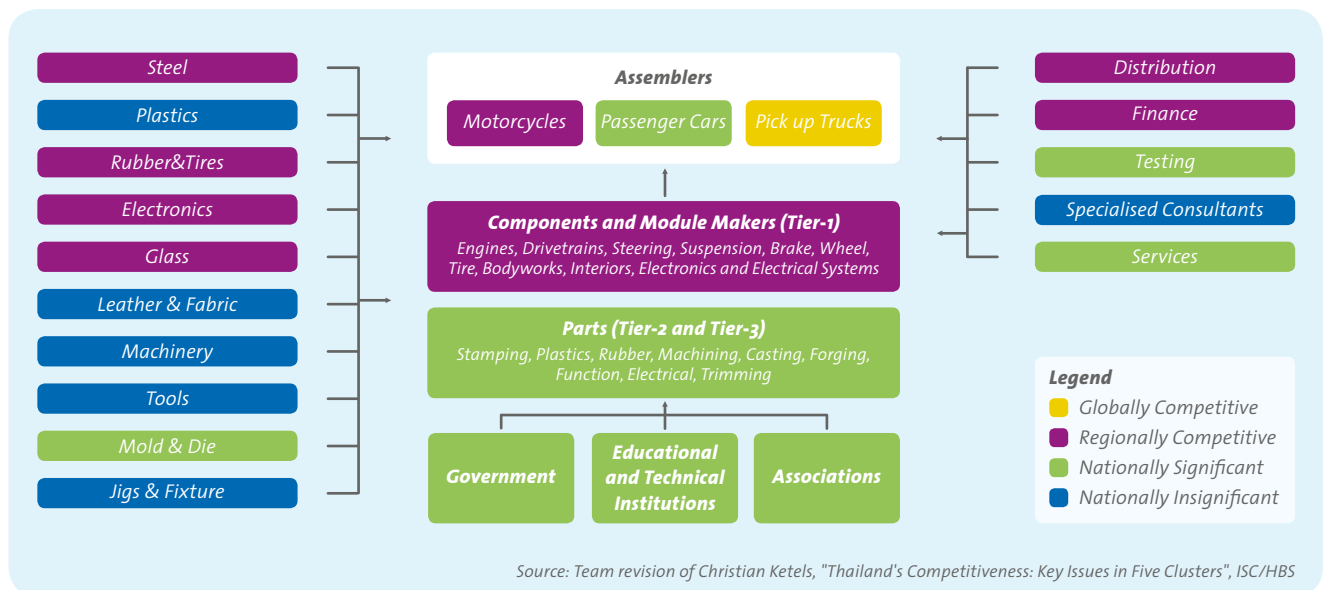
Promoting Green Public Procurement

The project facilitated the inclusion of automotive parts in the list of green public procurement (GPP) and expanded the purchasing volume of automotive parts already on the GPP list. The project also cooperated with another project on this issue.



Stimulating Green Loans

As environmental issues became more relevant to the Thai banking industry, sustainability issue climbed higher on the agenda. The project supported banks to become more selective about their loans, thus benefitting responsible enterprises.



Results



SMEs Achieved Green Industry Mark Qualification

44 trainers/consultants were trained and provided consultation on resource and energy efficiency to 502 SMEs in the Thai automotive sector. Over 1 000 measures were proposed and 590 measures implemented successfully. 29 SMEs were trained on ISO 14001 and ISO 26000 as well the Green Industry Mark of the Thai Ministry of Industry. After implementation, 78 SMEs were qualified for the Green Industry Mark at Level 2-3.



Increased Access to Green Finance

Two financial packages were tailored by the SME Bank (Productivity Improvement Loan) and Kasikorn Bank (Energy Saving Guarantee Programme) for SMEs adopting SCP measures. To complement this, 112 bank officers were trained on resource and energy efficiency principles, and the project provided consultation to 52 SMEs in accessing to financial packages, not only offers from commercial banks, but also the ESCO service and subsidy programme of the government, e.g. the 80/20 subsidy programme of the Ministry of Energy. An agreement with a Tier-1 company, Calsonic, was established on greening the supply chains, resulting in 96 suppliers being restructured and 40 potential suppliers participating, while Calsonic received support from the EU SWITCH-Asia Policy Support Component in Thailand to obtain Green Industry Mark Level 5.



Currently, manufacture cost, including loss and waste if pertinent, added to a profit margin, equals the sale price. The question is who pays for this loss and waste. If we pay, it means our profits decrease. If the customer pays, it means the sales price goes up. Consequently, we need to find ways to eliminate loss and waste occurring in manufacturing process.

Following support from this project, I have reduced the use of raw materials in my factory by 25 tonnes per year, resulting in a cost reduction of around 2 million Baht per year. In this way, we could well increase our competitiveness in the future.

*Mr. Kamol Chutipongnavin,
Kamol Manufacturing Factory*



The perception of SMEs was that environmental and energy management was a costly and complicated process. However, the successful case studies made them realise that industrial development could be implemented in parallel with environmental and energy conservation. Most measures were quick-win solutions requiring low investment, allowing SMEs to improve their productivity performance, while reduce production cost. All this not only reduces costs and increases revenues, but also ensures business sustainability in the future.

*Ms. Wilasinee Poonuchaphai,
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Good Practice in SCP Promoted on National and Regional Platforms









Tools developed within the project were promoted towards other sectors, e.g. food, tourism. 452 good practices were documented and 350 cases analysed for publication in a handbook. One thousand copies of the handbook were distributed to SMEs through the Thailand Automotive Institute and vocational schools. The lessons learned were exchanged on both regional and national platforms, e.g. SWITCH-Asia Network Facility, ASEAN+3 Leadership Programme for SCP, UN-Winter School for SCP, Thai Auto Summit Conference, and FTI Annual Conference.



Created an Enabling Policy Environment for Green Auto Industries

Workshops enabled the drafting of policy recommendation papers covering the three main relevant policies, Thai Automotive Industry Master, Thai Green Industry Mark, and the 20-Year Energy Efficiency Plan. The recommendations concerned principally incentive mechanisms, criteria for soft loan applications (e.g. improving the process of standard approval, enhancing the capability of auditors, increasing the benefits for qualified factories), and regulations (e.g. broadening excise taxes to cover pollutant emissions from vehicles).

Impact in Numbers

<p>Economic Impact</p> 	<ul style="list-style-type: none"> Achieved monetary saving of EUR 7.9 million Created additional business opportunities for SMEs by: <ul style="list-style-type: none"> improving Thai suppliers' production performance as they implemented resource and energy measures to meet the Green Procurement criteria set by Tier 1 companies and car makers, such as 40 suppliers within Calsonic company's supply chain; reducing production costs by using resource and energy more efficiently, which in turn created higher profit; increasing interest from car makers like BMW and Audi that wished to source from Thai local suppliers which has increased their performance. Increased the supply chain's efficiency by encouraging SMEs to make resource plans and calculations when employing new measures. Some SMEs in Tier 1 and 2 established an award or incentive system for their workers who successfully implemented the measures. 	<p>Target Group Engagement</p> 	<ul style="list-style-type: none"> Engaged 502 SMEs in project activities and organised three outreach activities Involved 22 stakeholders: <ul style="list-style-type: none"> International Car Makers e.g. TOYOTA, BMW, Audi, Mercedes Benz, VW, Isuzu. They contributed by sharing knowledge and good practice to SMEs during a study trip as well as sourcing potential Thai suppliers. Industrial associations e.g. Thai Auto Parts Manufacturers Association (TAPMA), Thai Sub-contracting Association, Thai Automotive Association, Glass Association, Rubber Association, Iron and Steel Association. They were engaged in pursuing member participation in the project training course. Financial institutions e.g. SME Bank, Kasikorn Bank, Bangkok Bank, ESCO association. They were involved to facilitate training on the application of financial loan/packages Government agencies e.g. Ministry of Industry, Ministry of Energy. They contributed in improving the process of Green Industry Mark application, and access to ESCO service and 80-20 subsidy programme. The Automotive Institute embedded Loss Reduction Process (LRP) into their training service to improve the quality of local trainers.
<p>Environmental Impact</p> 	<ul style="list-style-type: none"> Achieved total water use saving of 118 230 m³/year, representing an average saving of 51% and total solid waste saving of 2 161 tonnes/year, representing an average saving of 49%. Reduced environmental risks by implementing SCP measures, such as good housekeeping, recycle and reuse, and reduction in use of raw materials/inputs. Reduced greenhouse gases (GHG) through implementation of SCP measures, soil contamination through reduced solid waste, and wastewater disposal. 	<p>Policy Development</p> 	<ul style="list-style-type: none"> Organised four policy events / dialogues with policymakers. The project contributed in three policies regulating the automotive sector, and resource and energy efficiency: <ul style="list-style-type: none"> Thai Automotive Industry Master Plan; Thai Green Industry Mark; 20 Year-Energy Efficiency Plan. The major policy recommendations focused on: <ul style="list-style-type: none"> Incentive mechanisms, e.g. improving processes and criteria for soft loans, subsidies, tax exemptions; Improving standard infrastructure, e.g. simplifying the certification procedure and reducing the processing time for applications, enhancing the capacity of auditors, considering supply chain greening initiatives such as green procurement guidelines; Law and regulation, e.g. broadening excise taxes to cover pollutant emissions from vehicles, setting up a sub-committee to ensure coordination between policies in different ministries. The Ministry of Industry has adopted the recommendation on improving the process of standard application, such as improving rewards and incentives for the Green Industry Mark (GIM) programme, improving the process of a GIM application. This encouraged SMEs to implement SCP practice.
<p>Social Impact</p> 	<ul style="list-style-type: none"> Achieved 35% reduction in work-related accidents through the implementation of health and safety risk reduction measures introduced in SMEs, such as less exposure to dust, safer chemical handling, less noise, reduced risks of metal scrap related injuries, reduced overwork due to clearer work instructions, etc. 	<p>Europe-Asia Cooperation</p> 	<ul style="list-style-type: none"> Six events were held with European and Asian participants. Four EU-Asia study tours were organised. This included a study trip to Germany to gain knowledge of SCP good practice in German car production, as well as matchmaking between German buyers and Thai SMEs. Two new EU-Asia partnerships were initiated. Attended international events, e.g. SWITCH-Asia networking meetings, SCP Leadership Programme for SCP, the 11th Asia Pacific Roundtable for Sustainable Consumption and Production (APRSCP), and UN Winter School for SCP. Contributed to SCP knowledge exchange in automotive supply chain management including tools, showcases and success factors.
<p>Climate Benefits</p> 	<ul style="list-style-type: none"> Achieved total energy saving of 114 433 082 GJ per year or an average saving of 27%. Reduced GHG emissions of 16 413 tonnes CO₂ equivalent per year SCP measures implemented to increase energy efficiency include technology modification and change of materials/product inputs. Measures carried out to enhance business awareness on climate change risks: <ul style="list-style-type: none"> Information workshop to provide general information on climate change and its impact; Training courses where SMEs visualised the potential impact of lowered energy consumption. In the trainings the SMEs learned to calculate GHG emission reduction brought by a reduced energy consumption (electricity, natural gas); Demonstration of green procurement guidelines of brand car makers (e.g. BMW, Audi, TOYOTA) that require GHG emission reduction. This made SME suppliers aware of the importance of climate change to their business. 	<p>Green Finance</p> 	<ul style="list-style-type: none"> 376 SMEs invested in measure implementation with a total one-off investment of EUR 2 million. 1 SME benefitted from better access to finance. Total amount of Green Finance leveraged for SMEs: EUR 623 000. Training and workshops were conducted to target SMEs as well as to identify the gap/obstacles of accessing green financial packages. The project facilitated matching funds and improve the access to ESCO service. The project used existing green financial products and subsidy programmes, e.g. Productivity Improvement Loans from the SME Bank, Energy Guarantee Saving Programme from the Kasikorn Bank, and 80-20 Subsidy Programme from the Ministry of Energy.



Legend

- Eligible countries for the SWITCH-Asia Programme
- Non-eligible Asian countries for the SWITCH-Asia Programme

Project implementation area

- City
- Region
- Country

The boundaries shown on this map do not imply on the part of the European Union any judgment on the legal status of any territory or the endorsement or acceptance of such boundaries.

OBJECTIVES

The project aimed to improve the sustainable production of SMEs in the Thai auto and automotive parts supply chains.

DURATION



PROJECT TOTAL BUDGET

EUR 2 020 000
(EU contribution: 80%)

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