

Eco—i Manual

Chemicals Supplement



European
Commission |

Copyright © United Nations Environment Programme 2017

This publication may be reproduced in whole or in part and in any form for educational or non-profit purposes without special permission from the copyright holder, provided acknowledgement of the source is made. UN Environment would appreciate receiving a copy of any publication that uses this publication as a source.

No use of this publication may be made for resale or for any other commercial purpose whatsoever without prior permission in writing from the United Nations Environment Programme.

Disclaimer

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the United Nations Environment Programme concerning the legal status of any country, territory, city or area or of its authorities, or concerning delimitation of its frontiers or boundaries. Moreover, the views expressed do not necessarily represent the decision or the stated policy of the United Nations Environment Programme, nor does citing of trade names or commercial processes constitute endorsement.

ISBN: 978-92-807-3637-3

UN Environment promotes environmentally sound practices globally and in its own activities. This publication is printed on 100% recycled paper, using vegetable -based inks and other eco-friendly practices. Our distribution policy aims to reduce UN Environment's carbon footprint.

Eco—i Manual

Chemicals Supplement



UN ENVIRONMENT ECONOMY DIVISION

Sustainable Lifestyle, Cities and Industry Branch

1 rue Miollis
Building VII
75015 Paris
Tel: +33 1 44371450
Fax: +33 1 44371474
E-mail: economydivision@unep.org
Internet: www.unep.org



TECHNICAL UNIVERSITY OF DENMARK

**Department of Mechanical Engineering
Engineering Design and Product Development**

Nils Koppels Allé Building 404
DK- 2800 Kgs. Lyngby
Tel (+45) 45 25 19 60
Fax: (+45) 45 25 19 61
E-mail: info@mek.dtu.dk
<http://www.mek.dtu.dk/>

About the UN Environment Economy Division

The UN Environment Economy Division helps governments, local authorities and decision-makers in business and industry to develop and implement policies and practices focusing on sustainable development.

The Division works to promote:

- sustainable consumption and production,
- the efficient use of renewable energy,
- adequate management of chemicals,
- the integration of environmental costs in development policies.

The Office of the Director, located in Paris, coordinates activities through:

- The International Environmental Technology Centre - IETC (Osaka, Shiga), which implements integrated waste, water and disaster management programmes, focusing in particular on Asia.
- Production and Consumption (Paris), which promotes sustainable consumption and production patterns as a contribution to human development through global markets.
- Chemicals (Geneva), which catalyzes global actions to bring about the sound management of chemicals and the improvement of chemical safety worldwide.
- Energy (Paris), which fosters energy and transport policies for sustainable development and encourages investment in renewable energy and energy efficiency.
- OzonAction (Paris), which supports the phase-out of ozone depleting substances in developing countries and countries with economies in transition to ensure implementation of the Montreal Protocol.

- Economics and Trade (Geneva), which helps countries to integrate environmental considerations into economic and trade policies, and works with the finance sector to incorporate sustainable development policies.

UN Environment Economy Division activities focus on raising awareness, improving the transfer of knowledge and information, fostering technological cooperation and partnerships, and implementing international conventions and agreements.

For more information see www.unep.org

Acknowledgements

The sector specific supplement for chemicals value chains, as an integral part of the Eco-innovation Manual, has been commissioned by the United Nations Environment Programme (UN Environment) and is the result of close collaboration with International Support for Sustainable Products and Production (issppro).

Lead author: Sonja Bauer with contributions from Craig Hawthorne and Sanja Uršanić.

Supervision and coordination at UN Environment, Economy Division: Johanna Suikkanen, Liazzat Rabbiosi, Elisa Tonda, Andrea Floudiotis and Katie Tuck.

The working version of sector specific supplement for chemicals value chains was tested during the implementation of the 'Resource Efficiency and Eco-Innovation in Developing and Transition Economies' project by project teams of SIRIM Berhad in Malaysia, Egypt National Cleaner Production Centre in Egypt, Centro Nacional de Producción Más Limpia y Tecnologías Ambientales in Colombia, Council for Scientific and Industrial Research in South Africa and CER/Grupo GEA in Peru. UN Environment is grateful for their committed work in testing and applying the eco-innovation manual's methodology and sector specific supplement with Small and Medium Enterprises for chemicals value chains in their respective countries and for their invaluable feedback from this experience.

UN Environment acknowledges the following people that provided comments to the preparatory work for the conceptual and methodological formulation of the sector specific supplement for chemicals value chains: Adriana Alzate, Sonia Valdivia, Mark Weick, Johan Breukelaar, Brenda Koekkoek, Kevin Munn, Petra Schwager, Anna Hitschler, Adriana Alzate, Marcos Alegre Chang, Rafat Assi,

Gonzalo Gnecco, Carlos Manuel Herrera, Isnazunita Ismai, Xu Yufeng, Ariane Albers, Tatiana Botelho, and Girish Sethi.

In addition, UN Environment acknowledges the valuable contribution made by the following people: Faycal Boureima, Vera Barrantes, Sandra Averous, Kevin Ramirez, Jamie O'Hare, Daniela Pigosso, Karina Boers and Helena Rey.

Special thanks also go to the participants of the Regional validation and training workshops in five global regions of Asia Pacific, Africa, Latin America and the Caribbean, Europe and West Asia. Too numerous to mention, their inputs and provision of comments have also significantly helped to tailor this supplement to the needs of the end user.

UN Environment gratefully acknowledges the funding support of the European Commission to the 'Resource Efficiency and Eco-Innovation in Developing and Transition Economies' project and related activities.

Design activities were led by Mercè Rua and Adrià Garcia i Mateu from Barcelona-based design collective HOLON.

UN Environment gratefully acknowledges the funding support of the European Commission to the Eco-innovation Project and related activities.

Table of contents

ACTIVITIES WITH SUPPLEMENTARY CONTENT	7
PHASE 1 - PREPARE	10
PHASE 2 - SET STRATEGY	56
PHASE 3 - SET BUSINESS MODEL	98
PHASE 4 - BUILD ROADMAP	146
PHASE 5 - IMPLEMENT	158
PHASE 6 - REVIEW	164
GLOSSARY OF KEY TERMS	170
LIST OF FIGURES, TABLES AND INDUSTRY EXAMPLES	172

List of activities with supplementary content

PREPARE

Identify the right market for the eco-innovation services

Evaluate potential markets
PR.1

Build the right team to deliver the service

Build the right internal team
PR.2

Build the right external partnerships
PR.3

**Activities not covered in the supplement are faded*

Understand the value chain sustainability hotspots, opportunities and threats

Identify sustainability hotspots across the value chain
PR.4

Identify the general opportunities and threats across the value chain
PR.5

Develop a concept for a more sustainable value chain

Develop a value chain vision
PR.6

Engage potential clients

Develop a value chain pitch
PR.7

Plan and implement engagement activities
PR.8

Gain approval from senior management to proceed

Pitch the benefits of eco-innovation to the CEO
PR.9

SET STRATEGY

Get ready for the Preliminary Assessment

Plan my data gathering strategy
ST.1

Understand the current business strategy

Interview the CEO
ST.2

Understand the current business model

Capture the current business model
ST.3

Understand the current operational performance

Do a Walk-Through Audit
ST.4

Do a workshop/ interviews with staff
ST.5

Update the sustainability hotspots
ST.6

Analyse the information I have gathered

Do a SWOT analysis
ST.7

Define the company vision and strategic goals of the new business strategy

Develop a vision for the company
ST.8

Define the strategic goals
ST.9

List of activities with supplementary content

SET BUSINESS MODEL

Define the products, markets and selling points of the new business strategy

Generate ideas for new products, markets and selling points
ST.10

Evaluate ideas for new markets, products and selling points
ST.11

Select which ideas for new markets

Get senior management approval for the new business strategy

Do an individual/group review of the business strategy proposal
ST.13

Pitch the new business strategy to the CEO
ST.14

Consider key management issues for implementation

Understand in more detail the performance of the company through an In-Depth Assessment

Update the data gathering strategy
BM.1

Gather additional data on the business model
BM.2

Gather additional data on operational performance
BM.3

Generating ideas at the individual building block level

Generate ideas for the customer segments block
BM.5

Generate marketing ideas for the value proposition block
BM.6

Generate technical ideas for the value proposition block
BM.7

Generate ideas for the revenue streams block
BM.10

Generate ideas for the key resources block
BM.11

Generate ideas for the key activities block
BM.12

Generate ideas for the key partnerships block

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_15626

