

國立臺北大學自然資源與環境管理研究所
104 學年度第二學期 『清潔生產與工業生態』

課程進度(09~11)：工業生態學之實作－生命週期評估
Implementation of Industrial Ecology: Life Cycle Assessment

- LIFE CYCLE ASSESSMENT (G&A, Chap.12-14)
 - Product Lifecycle
 - ⇒ From-Cradle-to-Grave; From-Cradle-to-Gate
 - ⇒ From-Gate-to Gate; From-Cradle-to-Cradle
 - The LCA Framework
 - ⇒ Brief History of LCA
 - ⇒ The SETAC Framework and The ISO-14040 Framework
 - LCA Phases
 - ⇒ Goal and Scope Definition
 - ⇒ Life Cycle Inventory Analysis
 - ⇒ Life Cycle Impact Assessment
 - ⇒ Interpretation
 - Boundary Definition
 - Data Acquisition
 - The LCA Impact and Interpretation Stages
 - ⇒ Classification, Characterization, Localization, (Normalization), and Valuation
 - ⇒ Prioritization and Weighting
 - ⇒ Eco-Indicator, Eco-Point, Weighting Schemes...
 - ⇒ Interpretation Analysis
 - Streamlining the LCA Process
 - ⇒ The Assessment Continuum
 - ⇒ Comprehensive LCA vs. Streamlined LCA or Simplified LCA
 - ⇒ Preserving Perspective
 - ⇒ Life Cycle Thinking and Life Cycle Management
- UPDATE OF ISO 14040 SERIES STANDARDS
(http://www.iso.org/iso/home/store/catalogue_tc/catalogue_tc_browse.htm?commid=54854)
 - ISO 14040:2006 and ISO 14044:2006 (14040:1997; 14041:1998; 14042:2000; 14043:2000)
 - ⇒ ISO 14040:2006 Environmental management – Life cycle assessment – Principles and framework
 - ⇒ ISO 14044:2006 Environmental management – Life cycle assessment – Requirements and guidelines
 - ⇒ ISO 14045:2012 Environmental management -- Eco-efficiency assessment of product systems -- Principles, requirements and guidelines
 - ⇒ ISO 14046:2014 Environmental management -- Water footprint -- Principles, requirements and guidelines
 - Technical Specification (TS) and Technical Report
 - ⇒ ISO/TR 14047:2012 Environmental management -- Life cycle assessment -- Illustrative examples on how to apply ISO 14044 to impact assessment situations

- ⇒ ISO/TS 14048:2002 Environmental management -- Life cycle assessment -- Data documentation format
- ⇒ ISO/TR 14049:2012 Environmental management -- Environmental management -- Life cycle assessment -- Illustrative examples on how to apply ISO 14044 to goal and scope definition and inventory analysis
- ⇒ ISO/TS 14071:2014 Environmental management -- Life cycle assessment -- Critical review processes and reviewer competencies: Additional requirements and guidelines to ISO 14044:2006
- ⇒ ISO/TS 14072:2014 Environmental management -- Life cycle assessment -- Requirements and guidelines for organizational life cycle assessment
- Other 14040 Series Standards under Development
 - ⇒ ISO/AWI TR 14073 Environmental management -- Water footprint -- Illustrative examples on how to apply ISO 14046

NWIP: New Work Item Proposal (新業務項目提案)

PWI: Preliminary Work Item (予備業務項目)

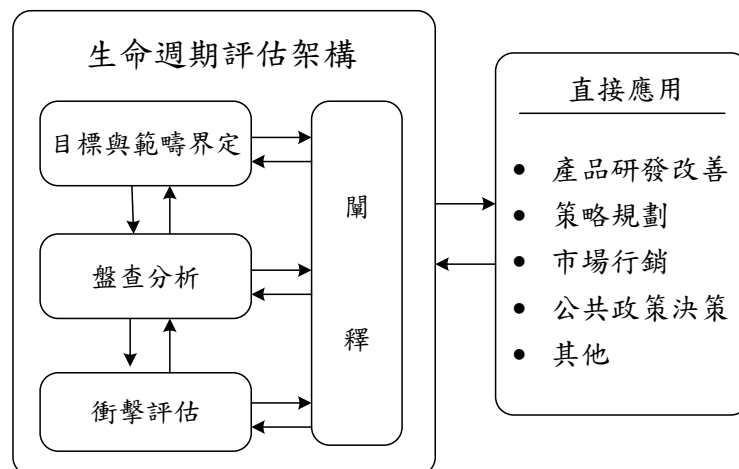
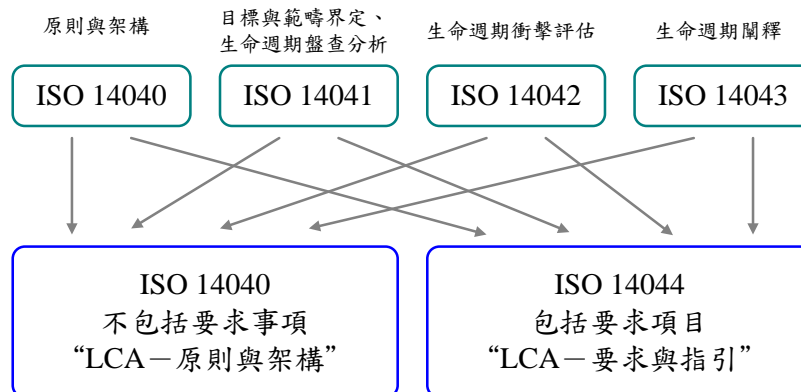
AWI: Approved Working Item (承認済み業務項目)

WD: Working Draft (作業文書)

CD: Committee Draft (委員會原案)

DIS: Draft International Standard (國際規格案)

FDIS: Final Draft International Standard (最終國際規格案)



(Further Supplemental Materials to be Provided)