

# NORDIC LCA GUIDE FOR INFRASTRUCTURE

## AN OVERVIEW

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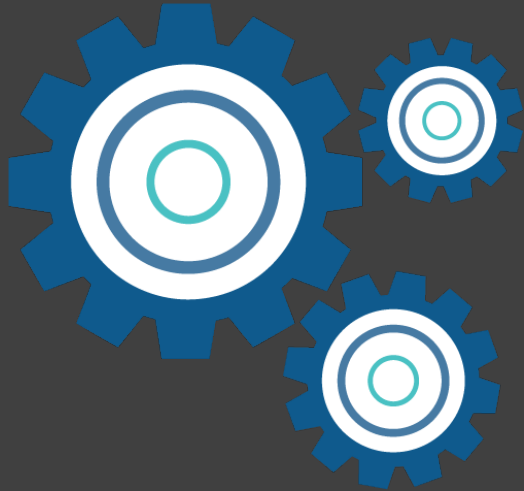




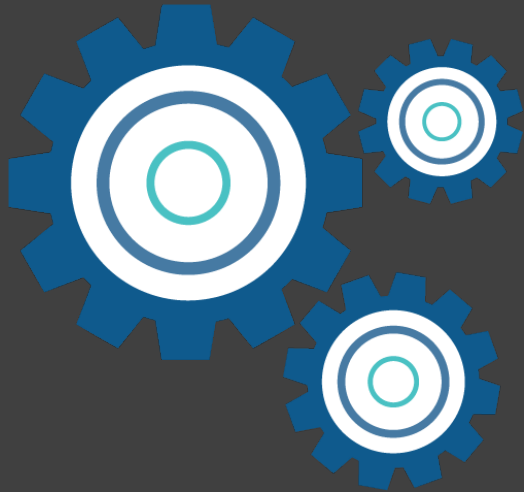
- Joint effort between NPRA, STA and FTIA
- NordLCA project initiated in 2017
- Draft prepared by Norsus during 2018
- Final version by Norsus, Destia and Tyréns – <http://www.nordfou.org/> .



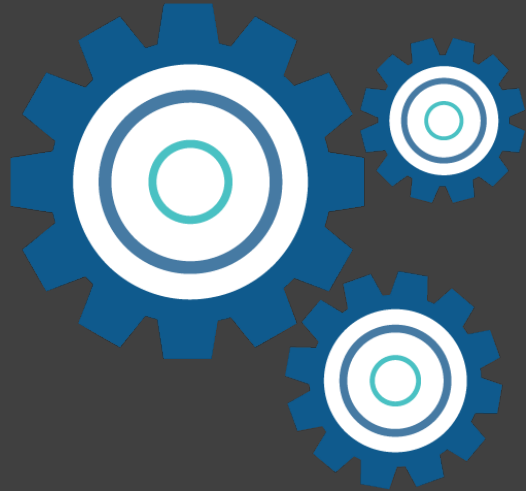
- Provide support for LCA implementation in decision making across planning process stages
- Narrow the room for interpretation in existing standards – provide consistency and comparability



- LCA and EPD methodology
- Applicable standards for LCA and Civil Engineering Works
- Considerations when comparing projects



- Feasibility studies
- Early planning
- Design
- Construction
- Operation & Maintenance



- Goal and Scope
- Product System
- Functional Unit
- System Boundaries
- Data Quality



- Transportation system
- Project
- Element
- Component
- Material



- Based on PCRs for road and rail
- Feasibility & Early planning - One complete project
- Road infrastructure: one km of road (option to use m<sup>2</sup> available).
- Rail infrastructure: one km of railway





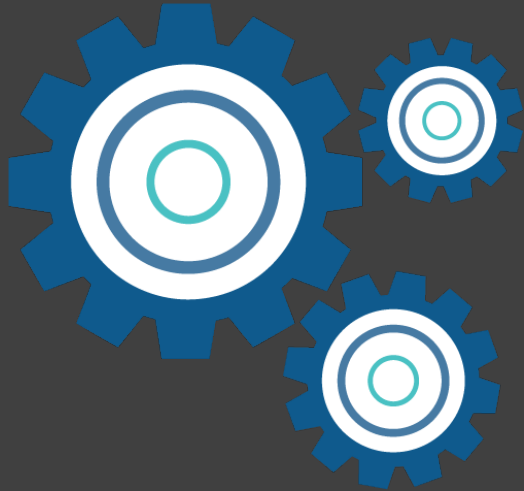
- Specific boundary definition across all planning process stages
- Based on existing standards
- Management of activities requiring specific consideration addressed



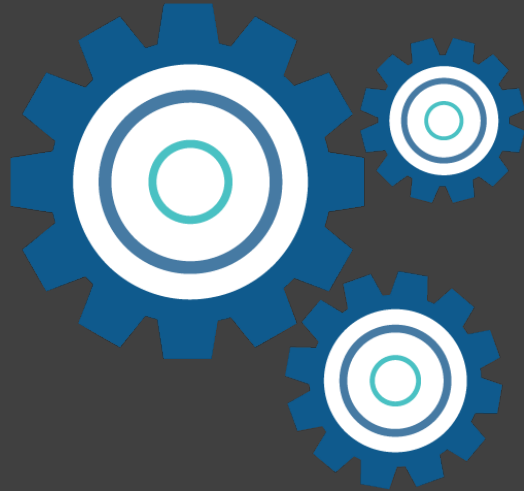
- 60 years suggested
- Longer or shorter assessment period may be defined when supported by the study goal and product system definition



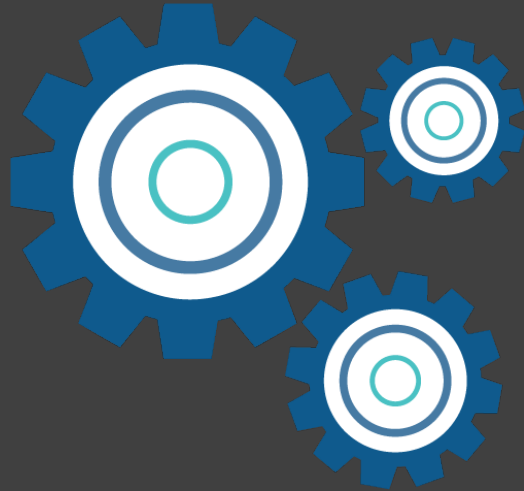
- Progressive scale-up of quality requirements
- Focus on generic vs specific/EPD data
- Assumptions on technology development over study period



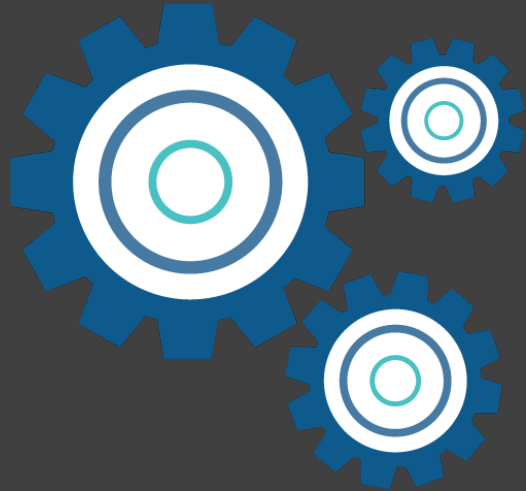
- LCA integration to planning process stages
- Management of study definition aspects for each planning process stage
- Hands-on tool when developing LCA studies for infrastructure in the Nordics



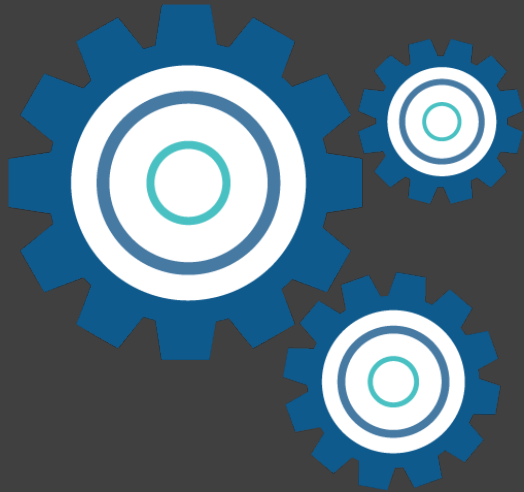
- LCA practitioner & target audience
- LCA tool and database
- Planning process stage
- Goal and scope
- Further recommendations



- Adaptation to country specific infrastructure planning stages
- Refined Goal and Scope
- Harmonisation to commonly used tools



- Environmental Product Declarations in green procurement
- Defining environmental performance goals and metrics



- Considerations on methodology – compliance to standards
- Used LCA tools & databases – compliance to this guide



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