2023 Industrial Ecology Project Grant Proposal

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1.   Project title

A platform for sustainability literacy & research dissemination.

2.   Project description

Global change demands urgent action. Much of the required information and data does not leave science's ivory tower, or only reaches policy makers. But there is a growing interest in the general public, particularly among younger folks, to better understand what kinds of transformations are needed and how these conclusions are drawn. In particular, many are interested in learning, among others, how footprints are calculated, how material flows are analysed, and what societal transformations are required – but not through a degree. Industrial ecology provides a rich toolbox of methods and myriad insights whose accessibility to the general public has been, with few exceptions, limited so far; open access papers and data are not the issue, but rather the lack of entry-level information. The central idea of the present proposal is therefore to open this box for everyone who wants to learn more while at the same time providing researchers an alternative opportunity to disseminate their own research. This could be realised through a blend of online encyclopaedia, MOOC, and research blog, potentially in a form similar to a Jupyter Book, that provides community-edited material for various experience levels, e.g. beginner (general public), novice (students), professional, where selected sections might be even commercialised. This aligns well with a recent call for an industrial ecology introductory lecture series (https://is4ie.org/announcements/1393).

We envisage such a platform as a place where: a) people from various educational backgrounds can find everything necessary for understanding our socio-economic metabolism, methods for analysing it, and pathways to a better future; b) a space for continuous learning, updated consistently with new research insights; and c) where sustainability researchers find another medium for their research dissemination. So far, only few notable exceptions are available that provide learning material on sustainability research online, such as those listed at https://is4ie.org/resources/educational or the Life Cycle Initiative's training material. Most of these resources, however, are either directed only at students enrolled in relevant degrees, are only focused on specific aspects of industrial ecology, or are visually and programmatically not compelling.

For this proposal, we take inspiration from these existing efforts in the ISIE space, as well as well-established learning platforms like Khan Academy, novel tech solutions such as Jupyter Books (not notebooks!), and efforts in other disciplines such as the climate impacts encyclopaedia ISIpedia hosted by PIK or the nutrition encyclopaedia Examine.

While the proposal is defined across all ISIE sections, the Student Chapter Board (contact person: Maximilian Koslowski; maximilian.koslowski@ntnu.no or students@is4ie.org) is willing to take charge of this effort initially. Preferably, though, a new board or working group ought to be established.

3.   How would this benefit industrial ecology?

   i.   Increased visibility,
   ii.   Driving change among the general public through improved environmental literacy (a matter dear to many ISIE members),
   iii. An alternative form of research dissemination (where particularly early-stage researchers can practice their communication skills, in the form of texts of even videos).

Additionally, if selected sections of such a platform (or the access for a specific user group) were to be commercialised, it would represent an additional source of income for the ISIE.

4.   Budget?

Up to EUR 2500.

5.   Budget breakdown?

The entire budget would be spent on setting up the online platform structure (via the IT company that manages and maintains the ISIE website). Contributions from ISIE members are not intended to be remunerated.