



Instructions for the SURF Green ICT Maturity Model

A self scan for Green ICT and Sustainability in the organisation

Author: Albert Hankel
Version: 2.0
Based on: SGIMM English v2.0
Date: 20-04-2015



Table of contents

1	Introduction.....	3
2	How to use the SGIMM	4
2.1	Carrying out the SGIMM self scan	4
2.2	Creating an action plan.....	5
2.3	Composing the assessment team.....	6



1 Introduction

This document describes the SURF Green ICT Maturity Model (SGIMM) and how to use it.

The SGIMM was developed after Dutch higher education institutions indicated a need for more facts and figures on Green ICT and how to use it as well as some form of qualitative performance indicator. SURF created the SGIMM using an earlier maturity model for sourcing as a template to develop a model that allows institutions to do a maturity scan independently, without external auditors. The SGIMM consists of areas where ICT can be used to directly or indirectly minimize CO₂eq emissions. The focus of the model is on energy and material efficiency.

The SGIMM currently consists of 18 + 6 attributes that can be scored with a maturity level. Each attribute is described with a definition as well as a description for the five maturity levels. These attributes are divided in four domains:

- Green ICT in the organisation
- Greening of ICT
- Greening of operations with ICT
- Greening of primary processes with ICT

Even though the SGIMM is developed for higher education, it can be used by other organisations. The model is designed in such a way that the first three domains can be applied in any organisation. The fourth domain (primary processes) can be developed as an addendum per sector, which, for the higher education community, consists of the greening of education and research with ICT. The current version of the maturity model only has a fourth domain for the higher education sector, which is covered by 6 attributes.

This document contains instructions for using the SURF Green ICT Maturity Model to carry out a self scan. Because it is designed to be lightweight, the model is necessarily limited in detail. This allows institutions to scan themselves in a quick, inexpensive and independent manner. The purpose of the model is to emphasize the essential maturity aspects concerning green ICT and it enables organisations to use it:

- To launch an internal dialogue;
- To gain agreement on the status quo; and
- To define actions for improvement.

We recommend that institutions with extensive green ICT experience still looking for further improvement to carry out a formal maturity audit to identify further opportunities.

2 How to use the SGIMM

2.1 Carrying out the SGIMM self scan

The SURF Green ICT Maturity Model gives an impression of the extent to which Green ICT has evolved within the organisation. Similar to other maturity models such as CMMi and eSCM-CI, each attribute can be scored on a maturity level 1 – 5. The combined scores of several people within an organisation can be used to give a general impression of the maturity of Green ICT within the organisation.

The purpose of these scores is not calculating maturity by itself and they should not be used to make a quantitative comparison between organisations. The true added value of this maturity model is when the results of the self-scan are used to improve Green ICT processes. Of course, this still does not guarantee successful Green ICT activities but it is more likely that they will be.

We recommend following these steps to carry out the SGIMM self scan:

1. Someone in the organisation should take the initiative. This could be the CIO or an ICT manager with sustainability in his or her portfolio. This person will be the Assessment Manager (AM). It is important that the AM has the influence and the ability to make sure that the self scan is properly done and that the action plan is implemented.
2. The AM starts with composing an assessment team. This is a group of people who represent the organisation in filling out the maturity model. Their scores are used to get an average maturity score for each attribute. After obtaining the averages, they are discussed during an evaluation session at which also a number of possible actions for improvement are defined. To obtain good results, the right combination of team members is crucial (see section 2.3).
3. The AM organizes a kick-off for the assessment team. During this meeting, the model will be discussed, as well as how to fill out the maturity levels. Finally the whole assessment process is explained. After the meeting the SGIMM spreadsheet is sent to all the participants.
4. All participants individually fill out the spreadsheet and score all the attributes. When everyone has sent their scores back to the AM, he or she will analyse the results and create a summary. This could contain the following analyses:
 - a. Individual scores of all participants on all attributes, visualized as a radar chart per domain.
 - b. Per participant per domain a median score, visualized as a radar chart with the domains on the axes.
 - c. A summarizing radar chart with the median scores of all attributes as well as the minimum and maximum scores.
 - d. As an illustration for similarities or big differences, a histogram per attribute showing the median, minimum and maximum scores.
5. The summary of maturity scores and how it relates to the individual scores are discussed in an evaluation session with the assessment team. Based on this discussion, actions for improvement are defined.
6. After carrying out the action plan or after a certain period of time, the AM can evaluate the obtained results. This is also a good time to use the SGIMM again to gain new maturity scores and formulate new actions for improvement. This creates a cycle for constant improvement of Green ICT in the organisation.

2.2 Creating an action plan

The purpose of the evaluation session is to discuss the individual maturity scores and to generate input for an action plan. When discussing the results, we recommend paying attention to:

- Those attributes on which there is a large degree of consensus within the team. This creates a sense of belonging and sets the stage for further cooperation.
- Those attributes where there is a great difference in scoring amongs the team. If extreme scores occur, it is good to discuss the different point of views. Possibly those differences can be resolved by checking whether they are caused by different use of definitions.

When creating an action plan, the team should start with choosing attributes that need improvement. Here are a number of suggestions to find these attributes:

- Start with quick wins. If there are any attributes that can be easily improved, use those to create a sense of achievement. These provide a good base for follow-ups.
- Take a look at those attributes with very low (average) maturity scores. It is likely that taking steps in the relevant areas will benefit the organisation in general so it is relatively easy to create value.
- Compare your own organisation with others. There are probably examples of peer institutions that are known for exemplary performances in certain attributes. These 'best practices' could be a source of inspiration for your own actions. In addition, the Assessment Manager might collect some best practices beforehand to have some details on how to copy those achievements.
- Create a graph that maps the complexity of actions for improvement against added value. This generates an overview of priorities: pick those actions that have high value and low complexity first. Of course, creating the graph itself could be difficult and laborious.
- Determine the risks for 'doing nothing'. Take a look at those attributes, which pose the greatest risks.

The nature of the agreed upon actions is often dictated by the description of the level of maturity that is to be achieved. If an organisation is in the "ad hoc" stage, i.e. the beginner level, one should work on description and documentation. If an organisation is already at level three one should define measurable KPIs. At the very least, the level five description should give some ideas for improvement.

2.3 Composing the assessment team

It is important to have an assessment team that has the right balance and skills. Each participant should be chosen based on at least one of the following categories:

- Employees who are able to fill out the form for most attributes and motivate their choices.
- Employees who are important for following up on the defined actions, such as heads of departments responsible for carrying out any agreed actions for Green ICT improvement.
- Employees who are necessary for support, such as those that oppose any changes when they were not involved in the decision process.

Regarding the content of the attributes, the SGIMM is relevant for:

- ICT as well as Sustainability policies
- Strategic ICT issues
- Operational ICT issues
- General business operations of the organisation
- (The primary processes and the role of ICT in those – in case of the higher education, these primary processes are education and research)

It should be clear that the Assessment Manager should know the organisation well in order to create a well-balanced assessment team.