

Golf Environment Organization - M&E Public System Report

Version 2- August 2017

Scope and Boundaries of the M&E System

- The scope of the Monitoring and Evaluation System is currently performance monitoring directly linked to the scope of the GEO Standard, which is an international standard currently focused on sustainability actions and outcomes at the golf courses Worldwide, across six areas: Nature, Water, Energy, Supply Chain, Pollution Control, Community.
- Currently monitoring focuses on reach indicators such as:
 - Number of courses enrolled and those active, number of courses certified and recertified, geographic location, etc.
- M&E also includes level 1 [case studies](#) on practical activities and outcomes of actions at individual golf facility level (e.g. integrated pest management programmes, water capture, pesticide application reduction, recycling, community programmes, etc.).
- A key challenge has been how the data collected in the original (version 3) OnCourse® programme can be used and analysed to enable full implementation of GEO's monitoring and evaluation framework (see [Appendix 1: GEO's Critical Pathways to Impact diagram](#)).
- During 2016 GEO started an ambitious upgrade of the OnCourse® programme. OnCourse® v4 (OCv4) is more robust, ensure more consistency in data captured (less qualitative data and text inputs); to increase uptake of the programme, make it more relevant and easier for golf facilities to report consistently on their actions, and enable a broader range of monitoring and evaluation.
- Future upgrades aim to allow new data sets (e.g. regional climatic conditions, carbon calculators, irrigation tools) to be electronically aligned to data inputted by golf facilities and the GEO Verifiers, to enable automated cross-checking of data. The new system will allow the issues defined in the M&E framework to be evaluated in more depth and assumed causal pathways to be tested more robustly. GEO and the industry stakeholders will be able to move from level 1 evaluation to more in-depth and wider scope level 2 and 3 analyses (see [Appendix 2: Golf and sustainability impacts KPIs](#)).
- During the final quarter of 2016, various stakeholders from within and outside golf inputted on the content of the new programme through structured surveys, semi-structured interviews, and open comment on the content of the new platform, to ensure:
 - Standard -> criteria -> questions and data requested -> auditor check/additional data

would best reflect the sustainability needs of the golf industry and stakeholders going forward and create a strong foundation for impact evaluation and reporting, using reliable and consistent data. This will enable reporting on a golf facility level, regionally, issue-led (e.g. carbon or water), country or industry-wide basis, in the future. It also encompassed analysis of other reporting requirements and systems – such as the SDGs, GRI and alignment with ISEAL common core indicators. At this time, this work is still evolving.

- A significant upgrade of OnCourse has been available since February and is launching formally in October 2017. When there is a critical mass of golf facilities in a country using the system, level 2 Country Reports will start to be produced. The sample set for this is 30% of golf facilities using OnCourse in a country.
- In 2018 a revision of the standard for Golf Facilities Management will take place through stakeholder outreach. An important part of this will be input on the metrics used by GEO and the industry to measure impact, intended and unintended effects of the programmes.

Defining the Intended Change

- GEO's vision is 'for golf facilities to maximize their environmental and social contributions for a positive net impact.' see [Appendix 1: GEO's Critical Pathways to Impact diagram](#) GEO's strategies to achieve this is through support, guidance, advocacy and the GEO OnCourse® programme available to support improvements in golf facility's operations worldwide and that can lead to third party certification (GEO Certified®).
- GEO and industry stakeholders have framed a practical agenda of intended sustainability impacts for golf, the 'Sustainable Golf Agenda' of intended change:
 - **Conserve and enhance biodiversity** – through protecting landscape ecosystems
 - **Conserve and protect water** and watersheds, and increase water recycling.
 - **Minimise climate change** – through greater energy efficiency and increase in renewable energy sources.
 - **Responsible supply chains:** including local purchasing policies and improved waste management streams.
 - **Enhance environmental quality** through pollution control measures
 - **Community integration** to generate diverse socio-economic value for the community
- The 'Sustainable Golf Agenda' aligns directly with the Standard for golf facilities, and measured and monitored in the OnCourse® programme. Previously it was across the six sections and now has been mapped to three sections: Nature; Resources and Communities – with a total of nine sub-sections to better ensure strength of data and reporting capabilities across golf's impact areas.

Performance Monitoring

- Performance monitoring is currently focused on relevancy and demand of the OnCourse® programme: registrations, active users, geography, facility type, certification and recertification
- Unintended effects of the standard are monitored and recorded by GEO Certification Ltd. and the GEO Auditor network, and included in the monthly reports to the GEO Senior Management Team. One hypothesised example would be that the Standard sets a minimum bar, and thus golf facilities may become complacent and don't try to innovate or be as ambitious as they could be. This document will be updated as there are any regular significant examples of unintended impacts identified.

Additional influencing factors include climate shocks impacting resilience and government policy impacting operations of facilities and their supply chains.

- Positive unintended results are incorporated into the theory once their causal pathway has been investigated and can be contributed to the standard implementation
- Some case studies have been developed through level 1 analysis of the OnCourse® certification (and if available) re-certification data; improvements in club facility activities and approaches across the six areas, and the impacts they have.
http://www.golfenvironment.org/get_involved/real_results
- For current and future level 1, 2 and 3 performance and outcome indicators, please see [Appendix 2: Golf and sustainability impacts KPIs](#).

Outcome and impact evaluation

- As stated previously, evaluations are currently at [club level](#) and Level 1 analysis of OnCourse® data and semi-structured interviews to [develop case studies](#).
- The updated version of OnCourse® has been developed to enable a wider variety of reporting and impact evaluations, for example:

- Club level, regional and countrywide analysis of impact of GEO programmes.
- Topic related impact assessments through the integration of new tools and apps – e.g. Carbon impacts, Water (sources, volume-reduction, protection), Community impacts (golfer wellbeing – hours in nature, calories burned; community giving; inclusion programmes), Pesticide reduction (% organic use; increase in IPM practices, active ingredient tracking).
- Future development of impacts reporting. Once the database has been populated to contain representative samples of reliable data, level 2 and 3 studies will be commissioned. Discussions are underway in specific countries to define and identify funding and partners for such studies.
- November 2017 – a postgraduate study is starting analysing "**The Environmental Sustainability of Golf Courses: Quantifying and Analyzing the Performance of Golf Course Systems**" is starting at the University of Wisconsin.
- For current and future level 1, 2 and 3 performance and outcome indicators, please **see Appendix 2: Golf and sustainability impacts KPIs**

Improving the Effectiveness of the M&E system

- The M&E system is undergoing on-going improvement, in line with the updated OnCourse® programme and in consultation with technical stakeholders across golf, science and sustainability industries.
- Monitoring of OnCourse® activity occurs on a monthly basis, is distributed to all staff and is used by top management and the Board in consultation with the Advisory Council and other stakeholders if required, to inform changes to GEO programmes to increase uptake and impact.
- Further work and refinement will be take place in 2018 in line with the Standard Revision process.

Opportunities for engagement

- There is currently no formal procedure as such for stakeholder engagement in the design and revision of the M&E system; this work is currently being undertaken internally, with outreach to specific groups when required. Some of the stakeholders who have been involved in updating the current system in the past year include:
 - R&A, IGF, USGA – golf's governing bodies
 - Asian, European and American Turfgrass specialists (e.g. STERF, Asian Turfgrass Centre)
 - Sustainability Consultants and Universities, NGOs (e.g. Birdlife, Buglife, WWF, AWS).
 - Members of the Advisory Council and Expert Working Group (New Developments)
- During 2018 further opportunities to input on the M&E indicators and protocols will occur through the standard and metrics revision programme.
- Any interested party can contact us to get involved through the website link in the impacts area of GEO's website.

Roles and Responsibilities

Different functions and aspects of the M&E system are undertaken across the team, with the total time spent by each staff member estimated to amount to at least one Full-time employee.

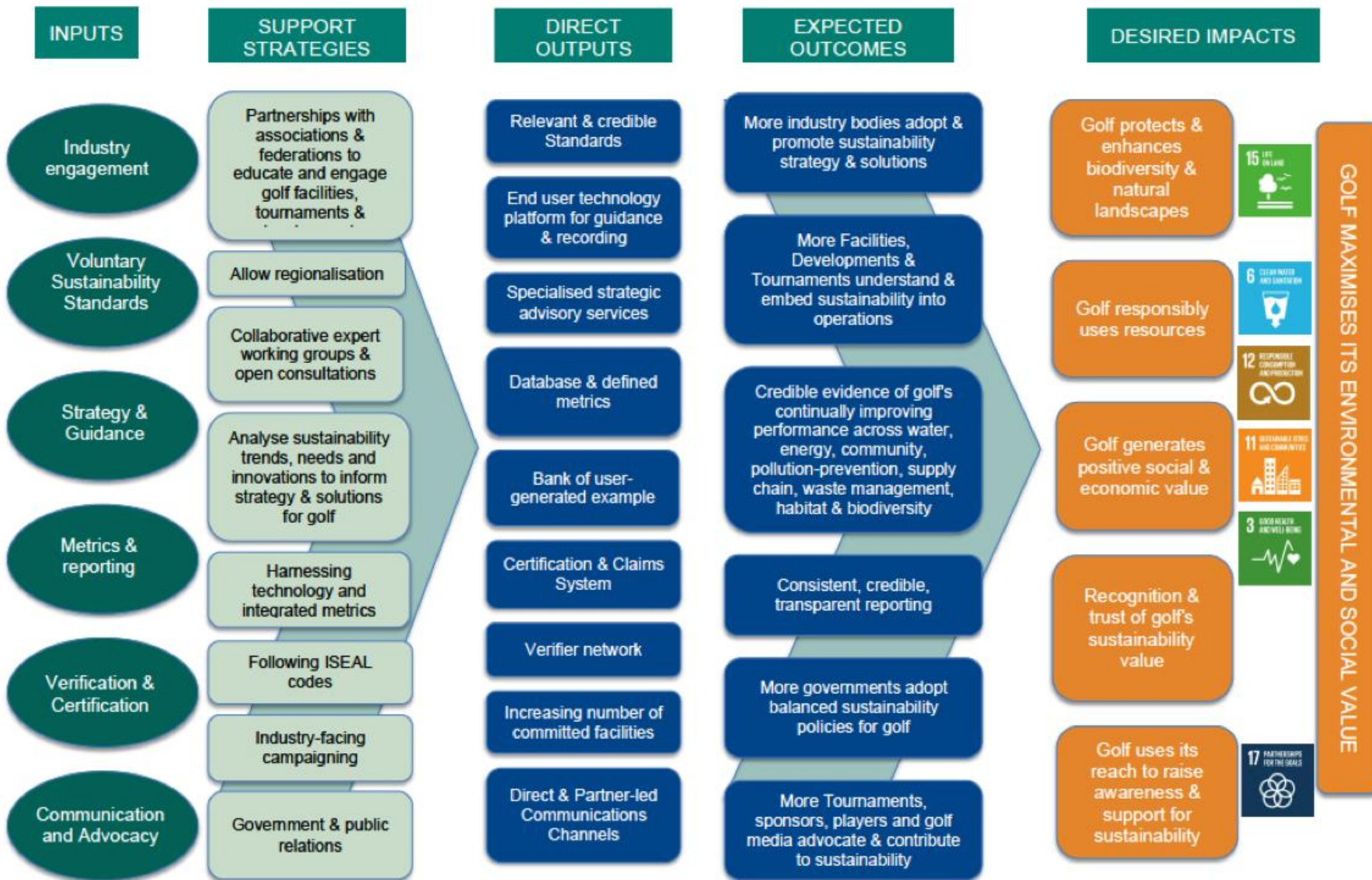
- **Kelli Jerome – Managing Director** oversees the Monitoring and Evaluation Programme at GEO.
- **Michael Bekken – Project Scientist** is responsible for the development of programme tools, further integration of monitoring, evaluating and reporting capacity, a collaborative effort to set consistent and modern sustainability metrics for the golf industry, and development of carbon calculations for golf.
- **Mona Karraoui – Credibility Manager**, has a strategic role in developing and communicating the M&E activities in line with ISEAL codes, industry best practices and in line with her role as Project Manager for the updated version of OnCourse®.
- **Richard Allison - Project Manager, GEO Certified®** (for subsidiary GEO Certification Ltd.), reviews the applications for GEO Certified®, ensures data integrity, works with the independent verifier

network, and also monitors **trends amongst facility reports.**

We have also been working with Alan Johnston at Embarq Consultants to define and plan outcomes, indicators and objectives for the Community pillar – looking at the social value of golf. Additionally GEO is working with the Gold Standard Foundation to develop a credible Carbon compensation programme, an aspect of which is developing indicators and measurement protocols in this area for the golf industry.

For further information and enquiries, please contact Mona Karraoui at mona@golfenvironment.org.

Appendix 1: GEO's Critical Pathways to Impact diagram



**GOLF ENVIRONMENT ORGANIZATION: GOLF AND SUSTAINABILITY
MONITORING AND EVALUATION OF IMPACTS: KEY PERFORMANCE INDICATORS**

GEO's Monitoring and Impact evaluation follows the ISEAL recommended way of looking at levels of impact analysis:

