

The **Swedish**
National Advisory Board
for **Impact Investing**

Guiding Principle: How to measure and report on impact

Last updated: 15 December 2021

Introduction

The purpose of this Guiding Principle is to help organisations from all sectors in the impact economy to easily measure and report on impact, and to set a common standard for what is good impact reporting.

This Guiding Principle is based on the results of a collaboration between The Swedish National Advisory Board for Impact Investing, Effektfullt – a non for profit organisation promoting good impact measurement practices - and leading audit and advisory firm PwC in Sweden.

We believe that impact measurement should be relatively easy to understand and to carry out. Good impact measurement practices should not be reserved for only the very specialised or the very resourceful. If we do not have a good, easy and common method for measuring impact, we fear that only a very limited number of actors in the ecosystem will actually implement good practices in this area, leading to low accountability, impact washing and difficulties in basing decisions on impact data and knowledge.

The methodology for measuring impact presented in this Guiding Principle is based on the definition of impact in our Guiding Principle: Definition of Impact, which in turn is based on the Impact Management Projects five dimensions of impact and globally established consensus on how impact should be measured.

Our Guiding Principles are always work in progress. We will continue to refine them as the knowledge and experience in the impact space grow. We welcome feedback from users of the Principles and we actively seek thoughts and suggestions from users.

This Guiding Principle was last updated on December 15th 2021, and represents, in our opinion, the best approach to measuring impact that we know of to date.

We hope you will find it useful in your impact strategies. Please do not hesitate to send feedback, thoughts and questions to our Secretary, Jenny Carenco: jenny@swedishnab.se.

Stockholm, December 15th 2021

The Board of The Swedish National Advisory Board for Impact Investing

Eight steps to measure impact

Step 1	Verify that the intended outcomes fulfil the criteria for impact	<i>Use our Guiding Principle: Definition of Impact</i>
Step 2	Identify the core problem that is being addressed	<i>The core problem is the problem that is immediately addressed where we have a direct, significant impact.</i>
Step 3	Select indicators	<i>Indicators are measurable, non-binary and commonly accepted as representing the core problem.</i>
Step 4	Establish an initial value and a reference scenario	<i>Initial value is the value of the indicator – i.e the size of the problem - at the start of the activity. The reference scenario is the likely development of the indicator value without the activity.</i>
Step 5	Establish an outcomes scenario	<i>This is an estimation of how the indicators will likely evolve as a result of the activity</i>
Step 6	Establish thresholds for sufficient, scale depth and duration of the outcomes	<i>How much do the indicators have to change, for how many and for how long, for the impact to be significant enough?</i>
Step 7	Establish a measurement plan	<i>How will we measure the indicators or collect data, who will do it and when?</i>
Step 8	Measure, evaluate and report	<i>Conduct measuring and data collection, interpret results, report.</i>

<h1>Step 1</h1>	<h2>Verify that the intended outcomes fulfil the criteria for impact</h2>
What is an intended outcome?	<p>The intended outcome is the change you intend to achieve through the activity, project or investment. This can for example be reduced CO2 emissions, reduced food waste, improved health, reduced unemployment, increased access to education or increased access to clean water. Use the Guiding Principle: Definition of Impact, summarized in the table below, to validate that the intended outcomes qualify as impact.</p>

Criteria for impact			
<h3>WHAT</h3>	<p>The problem that is addressed is <i>prioritised</i> for people, society and/ or planet</p>	<p>The activity or investment is delivering <i>outcomes</i> not outputs</p>	<p>The problem addressed can be quantified and outcomes can be <i>measured</i> using relevant indicators</p>
<h3>WHO</h3>	<p>The target group, area or planet experiencing the problem is <i>underserved</i> with regards to the outcomes</p>		
<h3>HOW MUCH</h3>	<p>The outcomes delivered have sufficient <i>scale</i></p>	<p>The outcomes delivered have sufficient <i>depth</i></p>	<p>The outcomes delivered have sufficient <i>duration</i></p>
<h3>CONTRIBUTION</h3>	<p>The outcomes delivered represent a <i>counterfactual</i> improvement, i.e. are better than what would likely have occurred anyway</p>		

Step 2

Identify the core problem that is being addressed

What is a core problem?

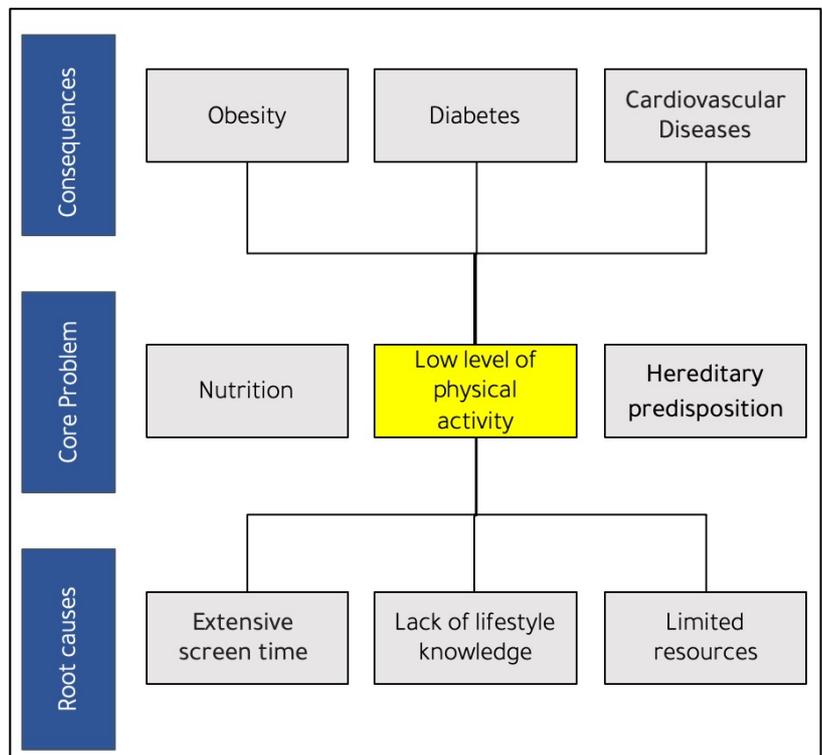
A core problem is the problem that our activity, project or investment immediately addresses and has significant, direct impact on. A core problem can have one or several important consequences, that might be the important problem that we are *really* trying to solve. However, if this bigger problem, is also influenced by factors out of our control, or if measurable reduction of these consequences lie in a distant future, then we can not use indicators of this bigger problem to determine the outcomes and impact we have created.

Examples

When replacing diesel generators by solar energy, the core problem we are solving is CO2 emissions from diesel generators, even if the consequence of these CO2 emissions – global warming – is the consequence we *really* after solving.

If we provide language training for immigrants, the core problem is 'low language proficiency' not unemployment, even if that is the consequence of the low language proficiency that we are *really* after solving. The core problem is not unemployment since this problem is also influenced by other factors than just low language proficiency.

In this example, we provide a service that encourages young people to be more physically active. The core problem is 'low physical activity levels'. The bigger problems, or consequences, that we *really* want to reduce, are diabetes, obesity and cardio-vascular disease, since these are the problems that are causing human suffering and high societal costs. But these problems are not our core problem and we can not measure our impact using f.ex. indicators of diabetes. First, because these diseases are also influenced by other root causes such as nutrition and genetics. Our intervention only has a direct impact on physical activity. . Second, the potential illness will occur in a distant future, making it impossible to measure within a reasonable time frame.



Step 3

Select indicators

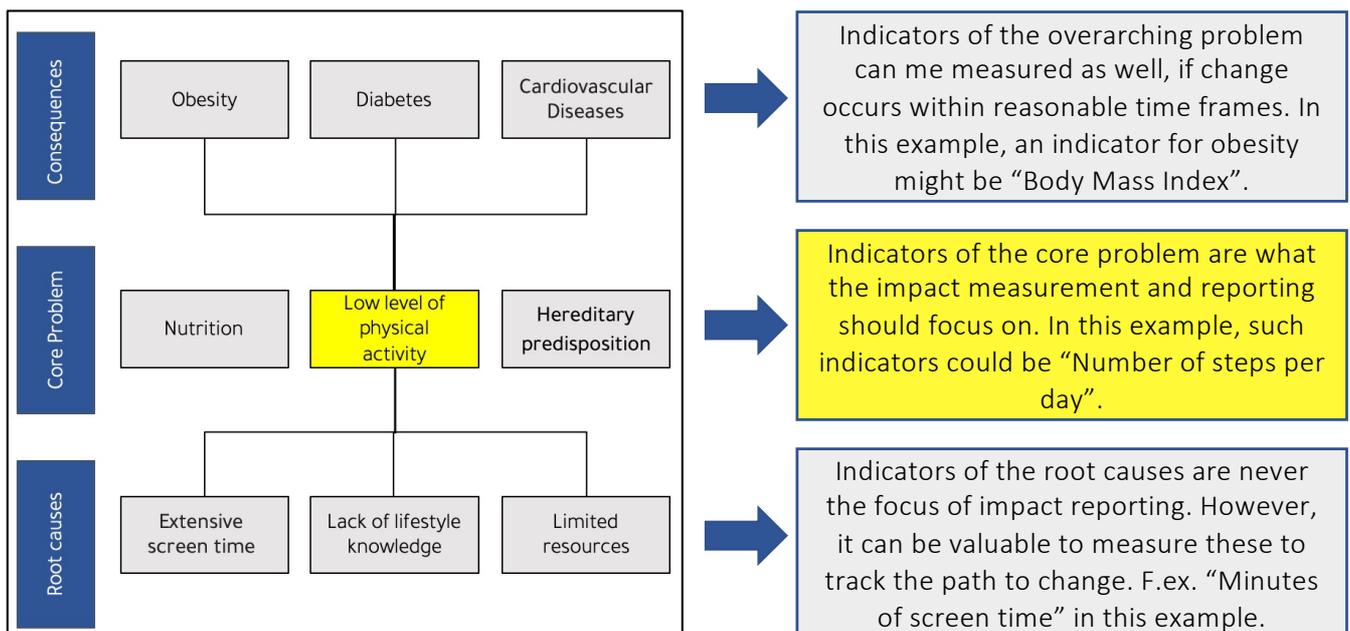
How to select good indicators?

Examine how the problem could best be described in a measurable way. Unemployment can be measured as “Proportion of the target group in at least part-time employment during the period”. Carbon dioxide emissions can be measured as “Kilos of carbon dioxide emitted per unit of time”. Acidification of water can be measured as “PH value in the target stream of water” and the incidence of diabetes can be measured as “Level of long term blood glucose: HbA1C”.

What is a good indicator?

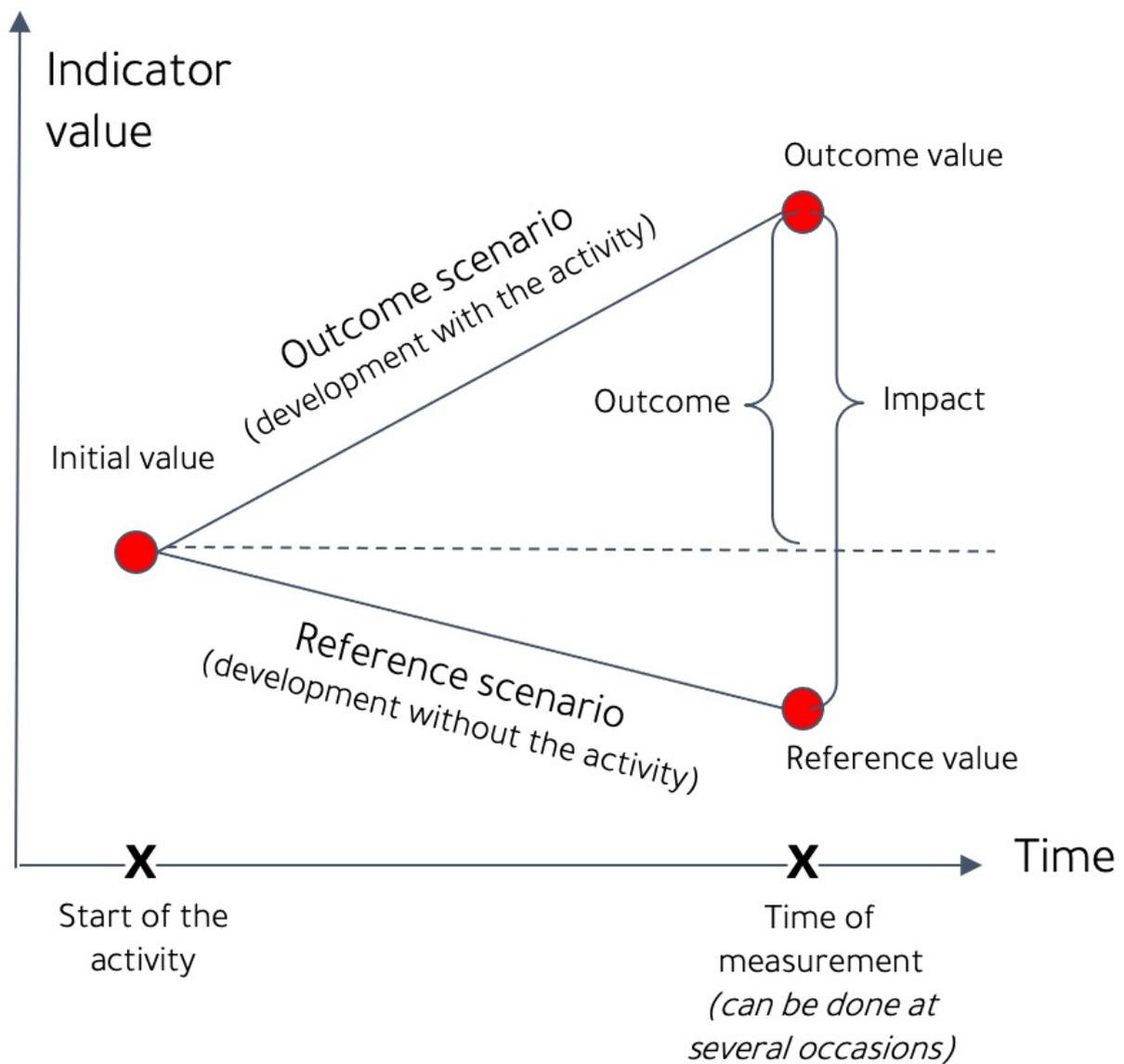
The indicators should:

- be measurable in the short or medium term (if not, the core problem is probably not well defined).
- reflect the development of the core problem in an objectively acceptable way (core problem “Low level of physical activity” - indicator “Number of steps per day”)
- not be binary (“there are...” / “there are not...”), since binary indicators makes it impossible to measure development over time, and do not capture step by step improvements towards a set goal.
- not be mistaken for an intended outcome (“increased...”, “reduced...”). Reduced CO2 emissions is an intended outcome, “Tonnes of carbon dioxide emitted per unit of time” is an indicator.
- be estimated and measured via statistics and available data, medical or chemical measurements, questionnaires, etc.



Introducing the Impact Measurement Model

Explanations on the following page....



Definitions in the Impact Measurement Model

Initial value	The value of the indicator at the start of the activity
Reference scenario	The likely development of the indicator value without the activity
Reference value	The likely value of the indicator without the activity at a certain measurement occasion
Outcome scenario	The likely or true development of the indicator value as a result of the activity
Outcome value	The likely or true value of the indicator as a result of the activity at a certain measurement occasion
Outcome	The difference between the initial value of the indicator and the likely or true outcome value of the indicator at a certain measurement occasion
Impact	The difference between the likely or true outcome value of the indicator and the likely reference value of the indicator at a certain measurement occasion.

Step 4

Establish an initial value and a reference scenario

How to establish an initial value

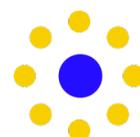
Using statistics, available data, surveys or other measurements, we can determine the initial value of the indicator.

Es an example: research reports might show that young people between 11-13 in a certain target group take approximately 3000 steps per day, that disposable income in the target group is on average 1'100 € per month or that a diesel powered boat emits 4 tonnes of CO2 a year. We can also conduct our own measurements, and f.ex. establish that 80% of inhabitants in a neighbourhood feel unsafe outside after sunset.

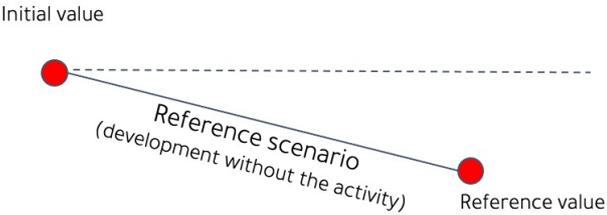
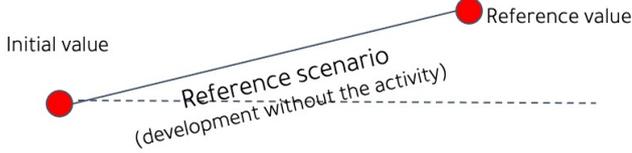
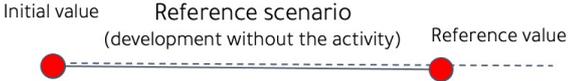
How to establish a reference scenario

A reference scenario is the likely development of an indicator without our activity. The indicator's reference value can be worse than the initial value, if for example people will get sicker over time, or unemployed to a larger extent. The indicator's reference value can also be the same as the initial value, f.ex. the diesel powered boat will likely emit as many tonnes of CO2 every year. Lastly, the indicator's reference value can actually also be *better* than the initial value. This is the case when an improvement would have happened anyway, f.ex. language proficiency probably improves a little within the target group even without our activity, just by them living in the country.

Use objective and evidence based information to establish a reference scenario, interview experts, stakeholders or the target group and make reasonable and verifiable hypothesis. A reference scenario should be a realistic *illustration* of an alternative development, not the establishment of an absolute truth.



Examples of Reference Scenarios

<p>The outcomes would likely have worsened over time</p> <p>This would be the case in many preventive interventions where we want to stop something from happening or getting worse, f.ex. preventing illness, accidents, unemployment or school failures. In these cases, the indicators would likely have developed in a negative way without our activity.</p>	 <p>The diagram illustrates a reference scenario where the outcome worsens over time. It features a red dot on the left labeled 'Initial value' and a red dot on the right labeled 'Reference value'. A solid line connects these two dots, sloping downwards from left to right. This line is labeled 'Reference scenario (development without the activity)'. A horizontal dashed line extends from the 'Initial value' dot to the right, representing the level of the initial value at the later time point.</p>
<p>The outcomes would likely have improved over time</p> <p>In these cases, an improvement would likely have happened even without our activity. This could be the case for certain illnesses, language proficiency or school results, where other interventions likely create some improvement. The aim of our activity in these cases is to create even better outcomes than the reference scenario.</p>	 <p>The diagram illustrates a reference scenario where the outcome improves over time. It features a red dot on the left labeled 'Initial value' and a red dot on the right labeled 'Reference value'. A solid line connects these two dots, sloping upwards from left to right. This line is labeled 'Reference scenario (development without the activity)'. A horizontal dashed line extends from the 'Initial value' dot to the right, representing the level of the initial value at the later time point.</p>
<p>The outcomes would likely have stayed stable over time</p> <p>This is the case for many environmental challenges. We know the CO2 emissions from certain industries, and they will likely stay the same over time if nothing is done. The initial value and the reference value will likely be the same.</p>	 <p>The diagram illustrates a reference scenario where the outcome remains stable over time. It features a red dot on the left labeled 'Initial value' and a red dot on the right labeled 'Reference value'. A solid horizontal line connects these two dots. This line is labeled 'Reference scenario (development without the activity)'. A horizontal dashed line also extends from the 'Initial value' dot to the right, overlapping with the solid line.</p>

Step 5

Establish an outcomes scenario

Estimating an outcomes scenario – modelling the potential outcomes and impact

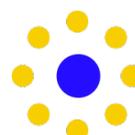
The outcomes scenario is the likely development of the indicators as a result of our activity. We establish an outcomes scenario to *model* the potential impact that the activity, project or investment will have. Making such a model is important in order to validate that we will likely be able to deliver outcomes that have sufficient scale, depth and duration and that the costs of delivering these outcomes are not exceeding the value that is likely created (either in form of savings for society or non-economic values such as reduced suffering or improved environment).

To set an outcomes scenario, we need to make informed hypothesis about the likely results and outcomes of the activity. Such hypothesis should be based on objective data such as historical and documented experience or evidence, scientific reports, interviews with experts or with the target group.

An outcomes scenario should be an illustration of a *likely* development, not the establishment of an absolute truth.

Establishing the actual outcomes values

The estimated outcomes scenario is replaced by the actual outcomes values when measurements are conducted.



Examples of Outcomes Scenarios

<p>Negative outcome, positive impact In this example we work to prevent disease. The initial value is 0, no one has the disease yet. The reference scenario is negative, f.ex. that 30% of the target group would likely have caught a disease in 3 years. If with our intervention only 10% will catch the disease (our outcomes scenario), then our impact is that we will likely prevent disease for 20% of the target group.</p>	
<p>Impact is smaller than outcomes In this example, the indicators would have improved even without our activity, f.ex. through other interventions. Our outcomes are significant, but our impact is only the difference between our outcomes and what would likely have occurred otherwise. F.ex., emissions from the industry is projected to improve by 10% yearly. With our activity they improve by 30% yearly. Our impact is 20% less yearly emissions.</p>	
<p>Impact is bigger than outcomes In this example, the disposable income in the target group is initially low and would continue to worsen over time. If with our activity, disposable income increases above the initial value, then our impact is bigger than our outcomes.</p>	

Step 6

Establish thresholds for sufficient, scale depth and duration of the outcomes

Why do we need to do this?

All positive change is good. But for this change to be considered *impact*, the outcomes have to reach a certain level of significance. These levels are not standard or absolute numbers, but are determined by what levels that are needed to achieve the intended overarching goal. For example, if we work to reduce CO2 emissions, what we *really* want to achieve is a positive impact on global warming. If we achieve a CO2 reduction, but that the reduction only lasts a week (insufficient duration), then we have probably not had any impact on our overarching goal, global warming. If we want to reduce risk of diabetes, by increasing physical activity levels, increasing the number of steps the target group takes from 3000 a day to 3100 a day (insufficient depth) is probably not enough to create a difference on their health. Setting outcomes targets on scale, depth and duration is crucial in order to evaluate the impact created. Determining what is sufficient scale, depth and duration will be subjective in many cases. We suggest that the users of this Guiding Principle are transparent in their assumptions and hypothesis and that the levels of change considered 'enough' are based on common or scientific knowledge.

What is scale?

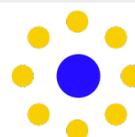
Scale is the share of the target group that experiences the change. If an intervention to prevent illness is offered to 1000 people, and only 2 of these experience any change, then the scale is insufficient for there to be an impact on public health on a group level. If we aim to replace diesel trucks by electric trucks, and we manage to change 10 out of 10'000 potential trucks, then scale is likely insufficient for there to be an impact on industry or target group level.

What is depth?

Depth is how much change that we create on the problem addressed. If our aim is to increase disposable income, then we do so with the purpose that people's life chances will improve. An increase of 10€ a month is likely not enough for there to be an improvement in quality of life or life chances. If we reduce emissions by 0,1% from a certain industry, then that is probably not enough depth to have an impact on that industry's contribution to global warming.

What is duration?

Duration is how long the change has to last for there to be any real impact. An increase in disposable income that lasts a month is not enough for the target group to experience improved life chances. A reduction in emissions that lasts a year, does not create any impact on global warming.



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Examples of target outcome levels across scale, depth and duration

Core problem addressed	Initial indicator value	Target outcome value (depth)	Target scale	Target duration
Low physical activity levels	3'000 steps per day	10'000 steps per day	> 50% of users	> 2 years
CO2 emissions from trucks	220 tonnes per year per truck	0 tonnes per year per truck	> 75% of trucks in the industry	> 5 years
Low professional activity level among youth	Average professional activity rate= 20% (1 day a week)	Average activity rate > 80% (4 days a week)	> 50% of the target group	> 5 years
High food waste from public canteens	50 kilos food waste per year per guest	15 kilos food waste per year per guest	> 60% of targeted canteens	> 3 years
High energy usage in commercial buildings	250 kWh / sqm	180 kWh / sqm	> 50% of targeted commercial buildings	> 5 years
CO2 emissions from residential diesel generators in Africa	300 kilos per generator per year	0 kilos per year by replacing generators with solar cells	> 75% of households	> 5 years
High incidence of type 2 diabetes	Initial value: HbA1c = 42-48 (prediabetic) Reference value HbA1c= >48 (diabetes 2)	Target outcome HbA1c =<40 (non-diabetic)	> 60% of the target group	> 2 years

Step 7

Establish a measurement plan

What is a measurement plan?

A measurement plan includes *HOW* you will measure the indicator or collect data, *WHO* will do the measuring, *WHEN* it should be done and *HOW MUCH* it can cost.

***HOW* to measure or collect data**

Indicators can be measured or collected as external data. Measurement methods include surveys and questionnaires (f.ex. to measure disposable income), medical testing (f.ex. blood sugar levels for diabetes), chemical measurements (f.ex. acidity in lakes). External data can be: unemployment levels, calculated levels of CO2 emissions from a certain means of transport, reported school grades, costs of care, number of patients and levels of sick leave just to give a few examples.

***WHO* should measure or collect data?**

Measurements in our own target group can be done internally. It might always be a good idea to contract an external and independent organisation for surveys and measurements if the cost is reasonable. Data collection is preferably done internally, since the external data collected should be from independent and objective sources. The risk for bias is therefore less. It will often come down to resources such as time and cost.

***WHEN* should measurements take place or data be collected**

The frequency and timing of measurement and data collection depends entirely on what it is that we measure or what kind of data we collect. In some cases, it is important to measure frequently to make sure we reach the intended change. This could be the case for disposable income, health measures or behavioural measures. Other data needs to be collected less frequently. For example, number of electrical trucks in use or social welfare payments.

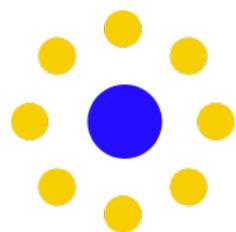
***HOW MUCH* can the measurement or data collection cost**

The rule of thumb is that the cost of measurement and data collection should always be as low as possible, but enough to reach good quality and high impact integrity. It is not reasonable that 50% of the activity's budget should go to measuring the outcomes, nor is it reasonable that the cost of measuring exceeds the value created for the target group or for society. On the other hand, if measuring carries a significant cost, but is the only way to ensure that what we do is working, then it is likely an important part of over all costs of the activity.

Examples of measurement methods and sources of data

Intended outcome	Indicator	Measurement method or data source
Improved physical activity levels	Steps per day	Target group using pedometer to measure steps every day
Reduced CO2 emissions	Tonnes of CO2 emitted	External data on average emissions calculated by expert organisation
Improved income levels	Monthly income	Monthly survey in the target group
Improved school results	School grades	External data from municipality twice a year
Reduced use of anti-depression medication	Units of prescribed medication	External data from public care authority or survey in target group
Reduced use of water in an industrial process	Litres of water used per year	Data from already installed water meters or water consumption on water bills.
Reduced energy usage	kWh / year	External data from energy company or energy usage on electricity bill.

Step 8	Measure and evaluate
Conduct measuring or data collection	Follow the measurement or data collection plan.
Evaluate outcomes across scale, depth and duration	Verify if the outcomes reach targets of scale, depth and duration.
If possible, validate reference scenario / values	The reference scenario was probably established when the potential impact was modelled, i.e. before the activity started. If possible, and if such data exists, verify if the reference scenario turned out to be true. If the difference between the predicted reference scenario and the actual reference scenario (f.ex. we predicted that 50% would be unemployed, but actually, in the target group that did not get access to our activity, unemployment is over 60%) is important, we suggest using the actual reference scenario. If an actual reference scenario can not be established, then the predicted scenario shall be used.
Establish impact by comparing outcomes values to reference values	Compare outcomes values to the predicted or actual reference values and establish the impact.
Report on impact	<p>Report the impact in an easy-to-understand way. Use infographics and illustrations. Explain why the used indicators were selected if it is not evident. Be transparent with all the hypothesis behind reference scenarios and estimations of target scale, depth and duration. Describe where data was collected or how measurements were conducted. Identify and describe potential bias or weaknesses in the measurements. Describe how continuous measuring and data collection will ensure sufficient duration if that can not immediately be established. Encourage input and feedback - continue the learning.</p>



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