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MarketMakers

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CATALYST FOR CHANGE

MAKING MARKETS WORK FOR THE NEW GENERATION IN
BOSNIA AND HERZEGOVINA

MARKETMAKERS OUTCOME HARVESTING REPORT

HELVETAS
BOSNIA AND HERZEGOVINA

kolektiv

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1 Introduction

This report is part of an Outcome Harvesting process implemented by three Market Systems Development (MSD) projects in the Western Balkan of the Swiss Agency for Development and Cooperation (SDC) and implemented by HELVETAS Swiss Intercooperation (Helvetas) with its partners.

One of the projects assessed was the MarketMakers project in Bosnia and Herzegovina (B&H), which is implemented by Helvetas together with Kolektiv / posao.ba. Besides MarketMakers, the Enhancing Youth Employment (EYE) project in Kosovo, and the RisiAlbania project in Albania were part of the Outcome Harvesting process.

To make the exercise manageable, Helvetas decided to focus the outcome harvest on one sector. After consultation with all three projects, it was decided to focus on the Information and Communications Technology (ICT) sector. While for the other two projects this also includes the work on Business Process Outsourcing (BPO), MarketMakers focused the outcome harvest exclusively on outcomes in Information Technology (IT). The main reasons for the choice of the ICT sector were that ICT is a sector all three projects work on and were confident that they have results to show.

The Outcome Harvesting process was designed and implemented by Marcus Jenal (Mesopartner) and Steff Deprez (Voices that Count), in close collaboration with the Helvetas Eastern Europe Unit and the three project teams.

This part of the report is specifically sharing the process, results and conclusions for the MarketMakers project. It is made up of five parts. The project and some background on the selected sector are presented in the context section below. The following part briefly describes the methodology and process used (a more thorough description of the methodology can be found in a separate report). Section four presents some of the patterns that could be found when analysing the collected Outcomes. Section five presents the narrative that was created by combining the outcomes, presenting an overview of the changes in the sector affected by the project. It also presents how the project contributed to these changes and a critical assessment of whether the changes would have happened also without the project. Finally, section six presents some conclusions specific for the MarketMakers project.

Besides this report and its equivalent for the other two projects, two more reports are part of the outputs of this Outcome Harvesting process: a report presenting the background and giving a detailed description of the methodology, and a report synthesising the findings over the three projects and presenting the insights from the sensemaking event where all three projects came together. In addition, a number of blog posts were published, discussing different aspects of the Outcome Harvesting process.

2 Context

2.1 The MarketMakers project

The MarketMakers Bosnia and Herzegovina project is a youth employment project and part of the Economy and Employment domain of the Swiss Cooperation Strategy for Bosnia and Herzegovina.

MarketMakers was initiated in October 2012 with an inception phase that lasted until April 2013. The first phase was implemented between May 2013 and May 2017. The second phase started in June 2017 and is planned until May 2021. Both the first and the current second phase have been implemented by a consortium consisting of Helvetas and Kolektiv / posao.ba.

The development goal of MarketMakers Phase II is that young women and men are integrated into and profit from the labour market through their realisation of additional decent employment and self-employment opportunities. MarketMakers focuses its work on four sectors (or Market Development Initiatives – MDI – as they are called in the project): Information Technology (IT), food, tourism, and Business Process Outsourcing (BPO). In order to achieve its goal, it follows two distinct routes. For route 1, it aims to generate additional employment and for route 2 it aims for individuals to invest in self-employment and other new ventures.

2.2 The IT sector in Bosnia and Herzegovina

There has been a constant growth in the number of employees in the IT sector in the past years – over 20% annually in the three years leading up to 2019. According to the MarketMakers 2018 Annual Report, around 4,000 people were employed at that time in the industry in B&H, spread across approximately 500 organisations. The majority of employees are younger than 35 years old (est. 60%). Somewhere in the region of 150 software engineers are educated per year, which is far too few to fulfil industry needs. Yet, research conducted by MarketMakers in summer 2017 indicates a high level of interest among youth to be trained or retrained in IT, and anecdotally, a high demand for guidance on how to enter the sector.

Therefore, MarketMakers' current strategy in the IT sector is focused on reducing the skills gaps and structural imbalances with regards to the provision of skilled labour for the IT sector. Furthermore, the project is tackling information asymmetries, improving the availability of information to all youth, secondary and tertiary-level students and graduates on the career options that exist in the IT sector in B&H, specifically how to get into the sector. The project also invests in creating domestic demand for IT services, to diversify the industry and make it more resilient. For example, the IT Careers Portal the project supports offers young people comprehensive insight into the most current industry skills demands and available opportunities for further learning and self-improvement. Complementary to the IT Careers Portal, MarketMakers together with its co-facilitator EDA Banja Luka and in cooperation with the Alliance of IT companies in B&H (BIT Alliance) is working with a number of actors to pilot different financing options for IT trainings. The goal is to reduce the financial barriers for young people wishing to train or retrain in IT and develop industry-demanded IT skills.

During the Outcome Harvesting process, the MarketMakers team has identified a number of changes that build on interventions of the project in Phase I. In that phase, one of the main focus areas of the project was the systemic constraint of sectoral collaboration of IT sector actors, particularly in the Sarajevo region. MarketMakers thereby worked with two main partners. HUB387, who provided physical co-location and the formal and informal start-up mentorship and BIT Alliance. Both HUB387 companies and the BIT Alliance, have, among other things, pioneered responses to national skills shortages through the HUB Academy and BIT Camp demonstrating the skills needs of the industry.

3 Methodology

3.1 Objectives, focus and scope

The objectives of the Outcome Harvesting process were to help the projects teams **learn and improve** what they do; **document evidence** that shows that the projects' interventions have achieved observable results; and contribute to **learning in the practice of market systems development** by disseminating the results and experiences of the study. A further objective was to **test the efficacy of outcome harvesting** in complementing the projects' internal monitoring and results measurement (MRM) system to capture rich but hard-to-measure and unanticipated changes in complex and dynamic contexts.

The study attempted to answer the following research questions:

1. Have the projects influenced thinking, attitudes, behaviours, 'mood', and the way things are assessed, planned and done in the targeted systems?

2. How have the projects contributed to these changes?

A third research question, how the projects influenced the way people look at gender relations and at people from minority ethnic groups and their participation in the workforce, was not assessed on a country-level and the results will thus not be presented in this report. The discussion on gender and social inclusion is shared in the separately available synthesis report.

The level of interest for the study are the systems that the projects have influenced, rather than the level of end beneficiaries. Of interest to the study are predominantly structural changes in the market system.

As one of the main aims of the study is to help the projects learn and improve what they do, the focus was on current interventions, rather than on impacts generated by closed interventions from the first phase. Nevertheless, some changes that are important for the current phase of the project but happened during the last phase were still captured. The study thereby looks at change as it actually happened in the system rather than to try to find changes that the projects thought *should* happen. Changes that are found are then linked back – if possible – to project interventions. The findings also do not say anything about the things the project attempted that did not work out, which would be interesting and important insights indeed. But it would require a different methodology to collect and this was not subject of this process.

Based on the objectives, the research questions and the defined scope and focus of the process, Outcome Harvesting was selected as a fitting methodology because it is able to generate a rich picture of what changes have happened and at the same time engages all team members in the process, taking them on a learning journey about their own work.

3.2 Description of the methodology

Outcome Harvesting is a method that enables evaluators or projects to identify, formulate, verify, and make sense of outcomes of their initiatives. Outcome Harvesting does not measure progress towards predetermined outcomes or objectives, but rather collects evidence of what has been achieved, and works backward to determine whether and how the project or intervention contributed to the change. Essentially, the aim of the process is to collect (harvest) as many Outcomes (i.e. observable and significant changes in the context) as possible and assess the contribution of the project to these Outcomes. The types of Outcomes and the patterns they reveal does not only contribute to providing evidence that the projects were effective, but also provides important insights for the projects to learn and adapt looking forward.

A more detailed description of the methodology can be found in the separately available background and methodology report. In the following, we describe the concrete steps of the process to assess the outcomes of the MarketMakers project.

3.3 Description of the process

The process was kicked off with a workshop on 11 and 12 October 2019 with the project team, representatives of the consortium member Kolektiv, and two representatives of the co-facilitator EDA. In the workshop, the participants were introduced to the Outcome Harvesting methodology. Then, various exercises were used to elicit an initial collection of outcomes. A template was used by the participants to not only describe the outcome, but also add additional information like how the project contributed to the outcome, the level of contribution (on a scale of 0 to 5, with 0 being no contribution at all and 5 meaning that the change would not have happened without the project), and the significance of the change (for a detailed description of the template see the main methodology document). These tags could later be used to assess whether there are specific patterns in the outcomes, such as for example the relationship between the type of change and the type of contribution by the project. During the initial workshop, the participants were also asked to string together the initial list of outcomes to a coherent narrative of how change happened in the sector (see Figure 1). This narrative was later refined by the consultants and the project team.
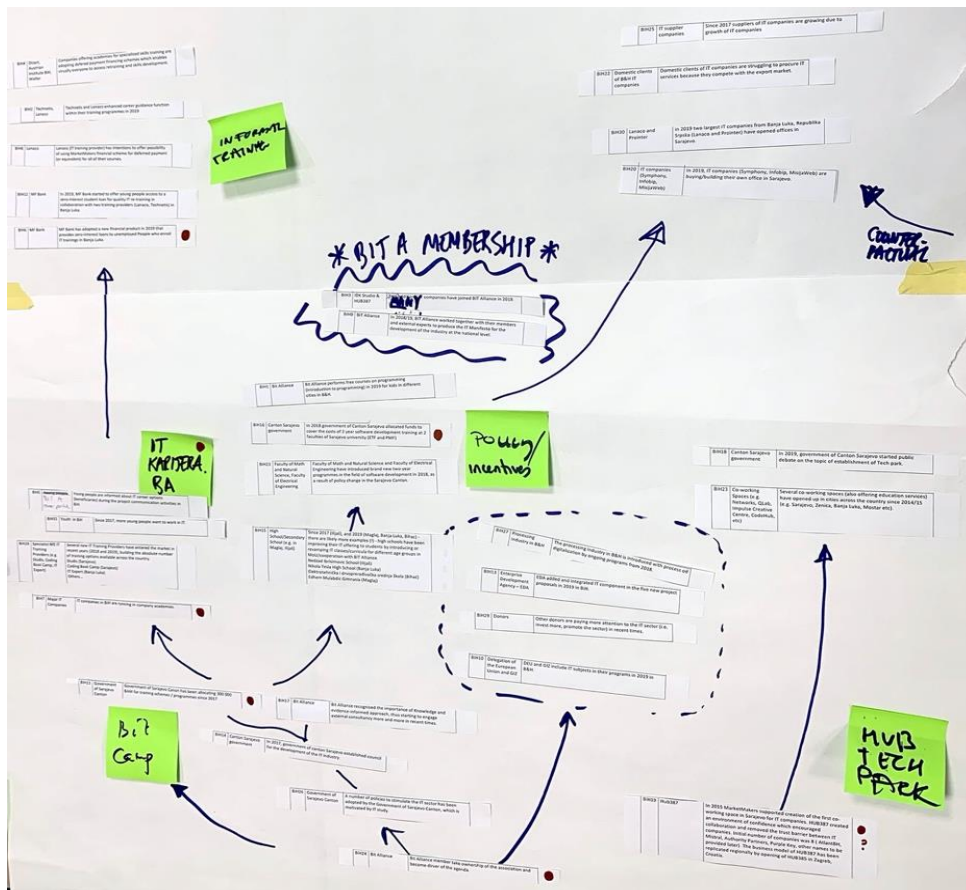
Figure 1: one of the ways the team of MarketMakers logically linked the collected outcomes, which would later lead to the MarketMakers outcome narrative.

On 14 October, the consultants met four key informants to verify the collected outcomes and potentially add more outcomes to the list. The following people were interviewed (the fourth person preferred not to be named in the report):

- **Haris Palalija** – Operations Manager, BIT Alliance
- **Azra Sarić** – Chief Culture Officer, Mistral
- **Nermana Ajanović** – Head of Projects Department, Kolektiv / posao.ba

After the kick-off workshop, the project team was complementing the outcomes, reviewing the formulations and also adding missing information.

On 19 and 20 November, a second workshop was held, in which the MarketMakers project team further refined the outcome formulations and tags. In particular, during this workshop, the team added missing outcomes, revised the significance ratings given to the outcomes, assessed the types of change, decided whether the changes were systemic, and further verified the project's contribution to the change. The teams also reviewed the outcome narrative.

In order to verify and improve the credibility of the changes, these draft narratives were sent to a number of critical friends of the project. These are people independent of the project but knowledgeable about the sector and the contributions of the project:

- **Haris Palalija** – Operations Manager, BIT Alliance
- **Jovana Musić** – Managing Director, HUB387 / ACADEMY387 / NEST71
- **Pavle Miovčić** – Researcher and Moderator, EDA
- **Goran Jovanović** – Senior Advisor and Researcher, EDA
- And one person that preferred not to be named

The critical friends made some technical comments on some of the aspects in the narrative, which are reflected in the narrative in Section 5 below, but in general stated that the overall narrative was a realistic reflection of reality. They did not find any aspect of it needs to be objected to.

Finally, a third workshop was organised with all three projects and representatives of additional projects implemented by Helvetas from 20-22 January 2020. This sensemaking workshop focused on extracting learning in the teams but also on peer-to-peer learning between the teams. An important element of the final workshop was for the teams to develop an alternative version of the outcome narrative, in which they tried to imagine how the situation would have looked like if the project had not been there – we termed this the counterfactual narrative. A list of participants of the first two workshops and of the MarketMakers delegation for the third workshop can be found in Annex 2.

4 Outcome patterns

This section of the report presents the outcome patterns providing an insight on the general nature of the outcomes harvested by the project team and partners. During the outcome harvest, the team also harvested some changes to which the project did not contribute but which are relevant for the long-term goal of the project and could influence the next cycle of interventions. These changes are not be taken into account in the patterns below but described in Section 4.1.5.

4.1 Overview of the changes

A total of **14 outcomes** were harvested by MarketMakers and their partners in Bosnia-Herzegovina. The majority of those outcomes were observed in the first year of the second phase of the project and as well as in 2019 (Figure 2). It is likely that the outcomes observed in 2017 are still effects of interventions of the first phase, whereas the outcomes observed in 2019 are outcomes of phase 2 interventions.
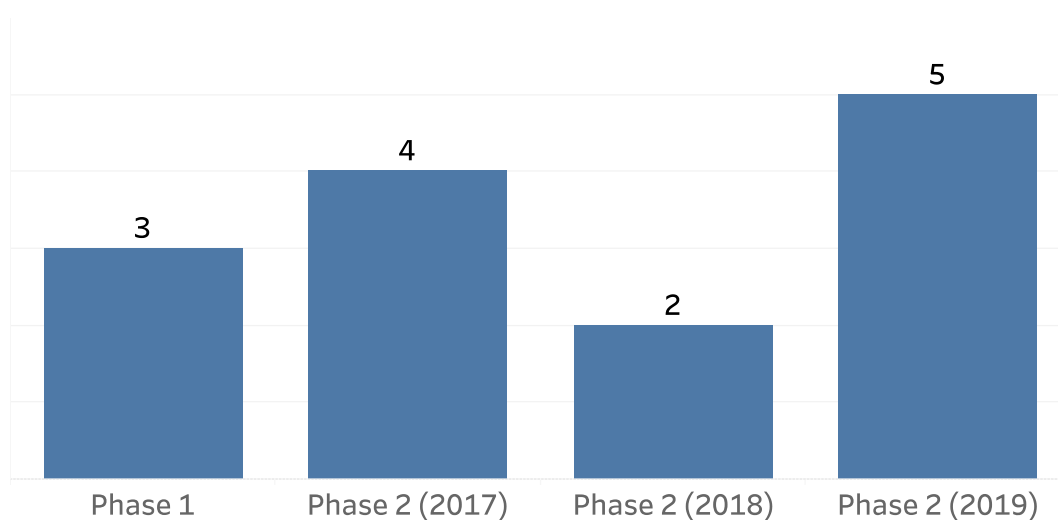
Figure 2: Number of outcomes harvested per year in which they happened from the end of phase 1 onwards

4.1.1 Actors who changed their behaviour

By definition, each outcome focuses on the behaviour change of an actor or a small group of actors. In B&H, outcomes were harvested from 7 different types of actors. Figure 3 shows that the project mainly achieved outcomes at the level of *Associations / Alliances*, *Government* actors and *non-formal education* actors.

Specifically, these were:
- Associations: *BIT Alliance*
- Government actors: *Government of Sarajevo Canton*
- Non-formal education actors: *Lanaco, Technetis, Lilium, DVC Major, Specialist NfE IT Training Providers (e.g. Studis, Coding Boot Camp, IT Expert) and other IT Companies*

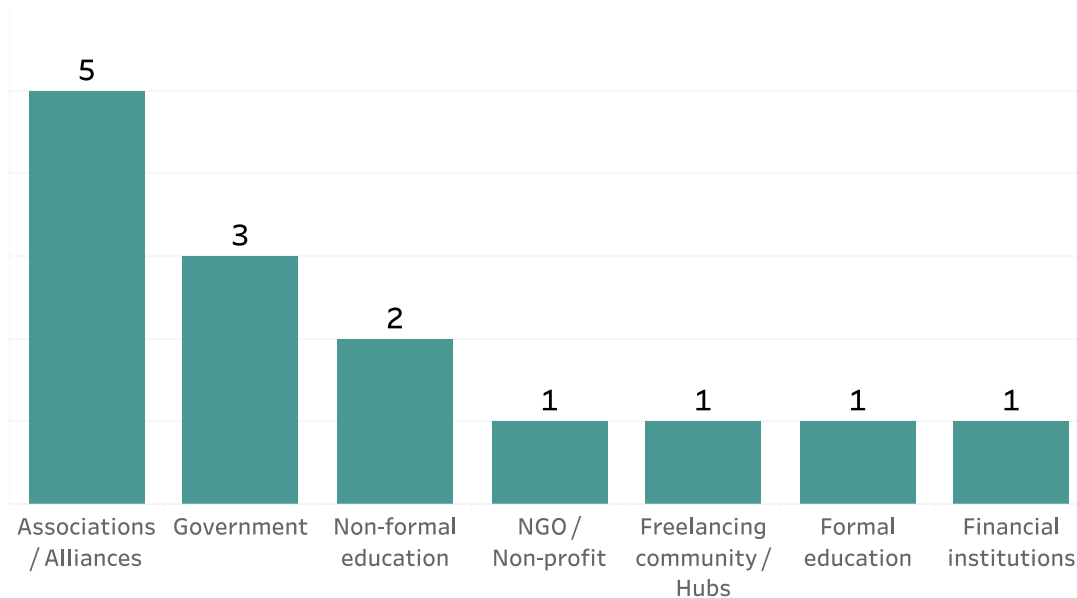*Figure 3: Total number of outcomes for each type of actor*

4.1.2 How the outcomes aligned with the project's objectives

The project achieved mainly outcomes related to skills development and partly to job creation with only one outcome tagged as change in job matching (Figure 5[1]). The project team rated the harvested outcomes according to their significance in achieving the project's objectives. The outcomes related to skills development are also assessed as the most significant (Figure 5).

This is interesting because MarketMakers is the only project of the three assessed that has its objectives not spread across these three dimensions but, according to its logframe, is tasked to work on job creation. The focus of harvested outcomes on skills development shows that this is a critical need in the IT sector in B&H and the project needs to shift its focus in order to achieve its objective of job creation.
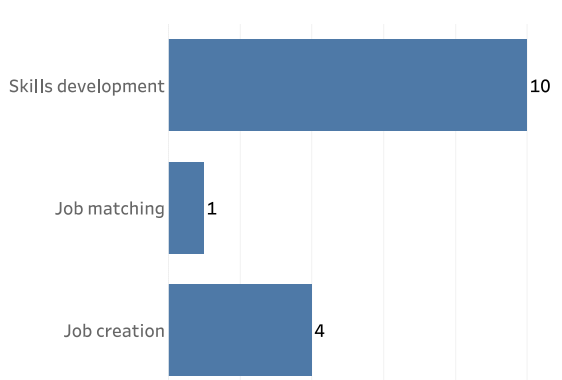

Figure 5: Number of outcomes per outcome area

Figure 4: Significance of outcomes per outcome dimension

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[1] Note that one outcome could be contributing change in more than one domain. Therefore, the sum of the outcomes in the three dimensions is higher than the total number of outcomes harvested.

4.1.3 Types of change and their significance

The outcomes were grouped by the project team into different types of change (Figure 7). In the case of MarketMakers, most outcomes achieved are related to **changes in practices, behaviour and actions** (9[2]*Greška! Nije pronađen izvor reference.*) and **collaboration or coordination among actors** (6).
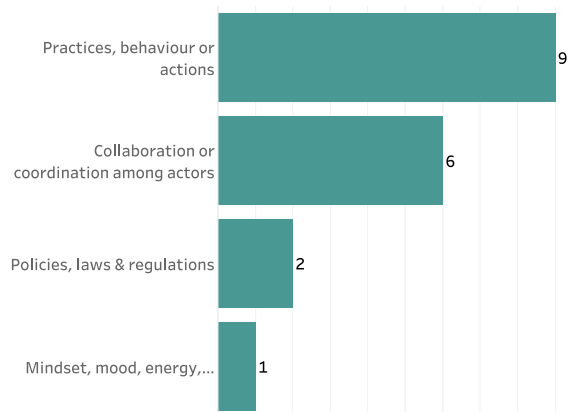

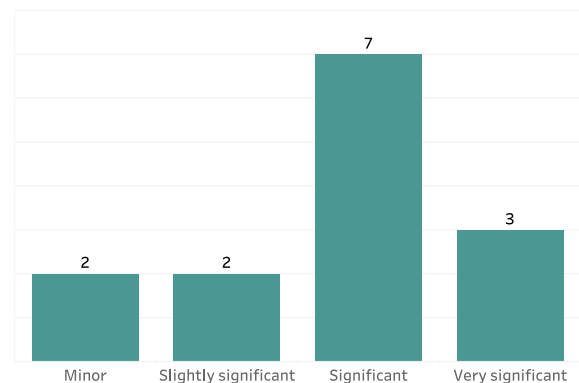Figure 7 Type of changes reflected in the outcomes

Figure 6: Significance rating of the outcomes

The project team also rated the harvested outcomes according to their significance (Figure 7). The specific question the significance rating intents to answer is how important each outcome is with regards to the objectives that the project wants to achieve. The rating was done on a cardinal scale comprising of 'minor', 'slightly significant', 'significant' and 'very significant'.

There are three changes that are indicated as **very significant** (Figure 7) in view of the long-term goal of the project:

Since 2014/2015, **IT companies, including Api Lab, Mistral and Lanaco**, have been running in-company academies. Api Lab trains ca. 150 people annually, Mistral ca. 20 people annually (so far 73 finished since academy started), Lanaco ca. 20 people per year. [BIH07[3]] – Categorised as change in **practice, behaviour and actions** of the actors.

Since 2017, **BIT Alliance members** have become the drivers of the agenda and took ownership of the association. In 2018/19, BIT Alliance worked together with their members and external experts to produce the IT Manifesto for the development of the industry at the national level (https://bit-alliance.ba/itmanifesto/). [BIH09] – Categorised as change in **collaboration or coordination among actors**.

Since 2017, **the Government of Sarajevo Canon** has been allocating 300 000 BAM for informal training schemes within IT companies. The Government of Sarajevo Canton has also through its ministries allocated 280.000 KM to fund scholarships for students of the two 2-year short programmes at Faculty of Math and Natural Science and Faculty of Electrical Engineering. [BIH11] – Categorised as change in **policies, laws or regulations**.

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[2] Note that one outcome could be reflecting two types of change. Therefore, the sum of the three categories of types of change is higher than the total number of outcomes harvested.

[3] All outcomes were numbered and wherever the outcomes or extracts of the outcomes are mentioned, the number is mentioned to ensure traceability. BIH stands for Bosnia and Herzegovina in order to separate these outcomes from the outcomes of the other two projects in the other countries.

The changes rated as **significant** in **practice, behaviour and actions** are

Since Aug 2017 **Bit Alliance** has been providing free courses on programming (introduction to programming) for kids in different cities in B&H. About 100+ students have received free training to offer the courses to kids. 1100 kids have gone through the training to date. [BIH01]

Since December 2018, the **IT career portal of BIT Alliance** has been informing young people about IT career options in BiH and guides youth on how to become part of the IT sector. By August 2019 it has attracted 28,900+ unique visitors and 800 registered users. It has influenced 40% of unemployed (surveyed) users to start retraining or upskilling in IT (https://itkarijera.ba/). [BIH05]

Since 2019, The **Enterprise Development Agency (EDA)** for the first time started adding and integrating IT components in five new project proposals it developed in BiH. [BIH13]

In 2018, the **Faculty of Math and Natural Science and the Faculty of Electrical Engineering** have each introduced a brand new two-year programme in the field of software development, as a result of policy change in the Sarajevo Canton. In 2019 Faculty of Math and Natural Science had 80 students enrolled and the Faculty of Engineering 50. [BIH21]

The changes rated as **significant** in **collaboration or coordination among actors** are

Starting off with six members (AtlantBH, Green River Media, PING, Authority Partners, Symphony and ZIRA, **BIT Alliance** reached 60 members by September 2019 (some of them are Academy387 and IDK studio). [BIH03]

In 2019, the **Government of Canton Sarajevo** started public debate on the topic of establishing a Tech Park. IT companies and NGOs were invited by the government of Sarajevo Canton to discuss the building of such a Park. However, no clear action plan or follow up plan is publicly available. For now, talks are being held with some IT companies that could be potential users of space of tech park. [BIH18] – This outcome is also characterised as change in **practice, behaviour and actions** and as change in **mindset, mood and energy**.

In 2014/2015, **BIT Alliance** created an environment of confidence, which encourages joint action and removes the trust barriers among IT companies. [BIH19]

4.1.4 Unexpected changes

The project team had to decide whether the outcomes harvested were expected (part of their plan) or unexpected (they happened even though they were not explicitly planned for). MarketMakers harvested four unexpected changes**:**

In 2017, the **Government of Sarajevo Canton** established a council for the development of the IT industry. [BIH14]

MarketMaker's contribution to this change: *This resulted from publishing a comprehensive study that provides evidence-informed recommendations to the government. MarketMakers specifically targeted the cantonal government that is capable and able to implement changes in a quick and efficient manner. MarketMakers also created a wide coalition of partners, including cantonal development agency SERDA to further advocate for government action.*

Since August 2017 **Bit Alliance** has been providing free courses on programming (introduction to programming) for kids in different cities in B&H. About 100+ students have received free training to offer the courses to kids. 1100 kids have gone through the training to date. [BIH01]

MarketMaker's contribution to this change: *BIT Camp was an initiative of BIT Alliance, which was established with MarketMaker's support. MarketMaker also contributed to BIT Camp together with other donors.*

Since 2014/2015, **IT companies, including Api Lab, Mistral and Lanaco,** have been running in-company academies. Api Lab trains ca. 150 people annually, Mistral ca. 20 people annually (so far 73 finished since academy started), Lanaco ca. 20 people per year. [BIH07]

MarketMaker's contribution to this change: *BIT Camp was an initiative of BIT Alliance, which was established with MarketMaker's support. MarketMaker also contributed to BIT Camp together with other donors.*

Since 2017, **BIT Alliance members** have become the drivers of the agenda and took ownership of the association. In 2018/19, BIT Alliance worked together with their members and external experts to produce the IT Manifesto for the development of the industry at the national level (<https://bit-alliance.ba/itmanifesto/>). [BIH09]

MarketMaker's contribution to this change: *This is a result of MarketMakers' support to the set-up and professionalisation of BIT Alliance*

4.1.5 Important further changes in the context

During the outcome harvesting process, the MarketMakers team also identified a number of important changes in contexts that the project had not contributed to or could not establish a contribution link to. These changes were monitoring as trends that could positively or negatively impact the project's work.

Since 2019, the Delegation of the EU, UNDP and GIZ have been including IT subjects in their programs in B&H. [BIH10]

Since 2017, **Nedzad Ibrisimovic School (Ilijaš) and Nikola Tesla High School (Banja Luka), Elektrotehnička i drvoprerađivačka srednja škola (Bihać) and Edhem Mulabdic Gimnasia (Maglaj)** improved their IT offering to students by introducing or revamping IT classes/curricula for different age groups in cooperation with BIT Alliance. [BIH15]

In 2017 **Infobip** has opened a brand-new campus (17,000 square meters). In 2019, they were also in direct conversations with the Government committing to buy office space in the tech park which will be built in the near future in Sarajevo. [BIH20]

Domestic companies are struggling to procure IT services because they compete with the export market. [BIH22]

Since 2018, several **new IT Training Providers** have entered the market in recent years increasing the absolute number of training options available across the country, such as Studis (Sarajevo), Coding Boot Camp (Sarajevo) and IT Expert (Banja Luka). In 2019, the **Delegation of the EU, UNDP and GIZ** include IT subjects in their programs in B&H. [BIH28]

In 2019 **two largest IT companies from Banja Luka, Republika Srpska (Lanaco and Prointer)** have opened offices in Sarajevo. [BIH30]

Since 2017, more **young people** want to work in IT. [BIH31]

In order to cover their need for more skills, **IT companies** are hiring more women and they are also actively encouraging girls and women to enter the sector. An average of 30% of the employees of IT companies are women in BIH, which is in line the global average. [BIH33]

4.2 The contribution of MarketMakers

For each outcome, a statement was developed by the project team describing the concrete interventions of MarketMakers that contributed to the described changes. Figure 9 presents an overview of the type of contributions for the harvested outcomes. MarketMakers invested most in *facilitating dialogue, building coalitions or collaboration among actors, co-developing business models and research, studies and making data available* to achieve the harvested outcomes.
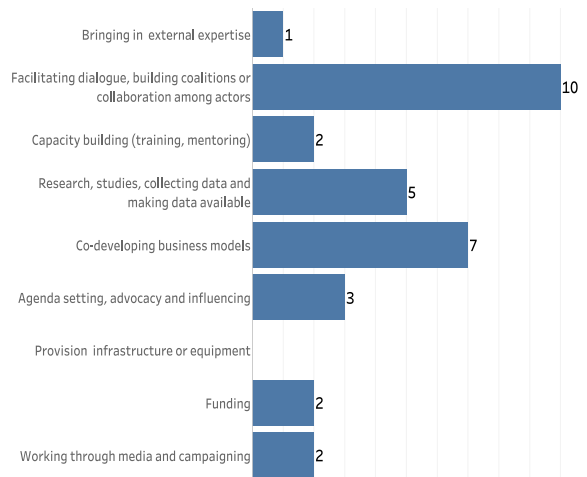
Figure 9: Type of contribution to harvested outcomes
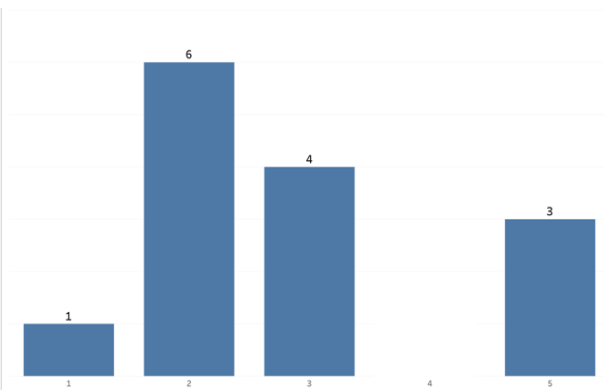
Figure 8: Contribution rating harvested outcomes

(1= very little contribution by MarketMakers; 5=the change only happened because of MarketMakers' intervention)

In addition, the teams also scored the project's contribution on a scale of 1 to 5 with 1 meaning very little contribution and 5 meaning that the change would not have happened without the project's support. The distribution of the outcomes according to this rating is shown in Figure 9. The pattern seen shows that the project team is clear that many changes might still have happened without the project (ratings of 1 to 3) but they might have looked differently or happened at a later stage. No outcomes were rates as 4. Three changes were rated as 5, they would clearly not have happened without the project.

If we focus on those changes that only happened because of the contribution of MarketMakers (Figure 9, score 5), we observe a mix of almost all types of contributions (Figure 10).

Figure 10: Type of contribution to harvested outcomes rated with a project contribution of 5

The outcomes rated with a project contribution of 5 and the corresponding project contributions are:

From 2019, Technetis, Lanaco, DVC/HUBL and Lilium enhanced the career guidance function within certain training programmes by providing contacts for potential internship or job opportunities for students after they successfully finish the course. [BIH02]

MarketMaker's contribution to this change: *MarketMakers developed the idea. In the case of Lanaco and Technetis, EDA helped to find the positions in companies, Lilium and DVC do it themselves.*

Since December 2018, the IT career portal of BIT Alliance has been informing young people about IT career options in BiH and guides youth on how to become part of the IT sector. By August 2019 it has attracted 28,900+ unique visitors and 800 registered users. It has influenced 40% of unemployed (surveyed) users to start retraining or upskilling in IT (https://itkarijera.ba/) [BIH05]

MarketMaker's contribution to this change: *The MarketMakers project initiated the IT Career portal development and assisted BIT Alliance through a partnership agreement to structure portal building and making it sustainable. Furthermore, MarketMakers contributed in content development and marketing of the portal.*

In 2019, MF Bank has adopted a new financial product that provides zero-interest loans to unemployed people who enrol in IT trainings with two training providers (Lanaco, Technetis) in Banja Luka. [BIH06]

MarketMaker's contribution to this change: *This financial product for financing of the IT trainings was created by MarketMakers, based on a market analysis. To make it possible for the bank to adopt the product, MarketMakers created a guarantee fund, thus lowering risk for the bank.*

5 Outcome narrative

5.1 How to read this section

This section of the report presents the narrative of change that was derived from the outcomes collected during the Outcome Harvesting process. It strings together the individual outcomes in a coherent way to make the effects of the project on the IT sector easily accessible for the reader.

The section is structured as follows. The overall structure is given by the themes that the narrative is covering, namely: changes in sector representation, legislation and political buy-in; changes in training provision; changes in career guidance and job matching; and changes in private sector growth and diversification.

Each of these sub-sections is further structured into three parts.

- **A description of the changes.** This part describes the changes without mentioning the support of the project. The text is taken from the outcome statements but adapted so it is more easily readable. Wherever the team assessed the change to be significant or very significant, the reason for this is also reflected in the text. In order to be able to refer back to the original outcome and link to the relevant contribution (see next bullet point), the relevant outcome number is mentioned in square brackets. All numbers start with BIH for Bosnia and Herzegovina to separate them from the outcomes of the other projects.
- **A description of how MarketMakers contributed to these changes.** This part describes the contributions by the project to the mentioned changes, drawing on the outcome contribution statements, the reviews by external 'critical friends' as well as the counterfactual narratives that were developed during the sensemaking workshop (if the text is drawing from the counterfactual narratives, this is indicated with phrases like "according to the MarketMakers team"). In this part, the outcome numbers are repeated to make it clear how the project contributed to specific outcomes. In addition, for each outcome, an 'r-value' is given. The r-value reflects the self-assessed contribution rating by the project with 0 meaning no contribution by the project and 5 meaning that the change would not have happened without project support (see the methodology part for more information).

A table with all the outcomes, the contribution and significance ratings and statements as well as the relevant list of evidence is presented in Annex 1.

5.2 Changes in sector coordination and public support

5.2.1 Description of the changes

The story of MarketMakers' work in the IT sector is closely linked to the journey of the Bosnian and Herzegovinian Association of IT companies (BIT Alliance). Starting off with six members in 2014, BIT Alliance reached 60 members in September 2019. This growth is quite significant because the more IT companies are members of BIT Alliance, the better and more effectively they can advocate for improved conditions for the sector. [BIH03] While initially driven by the project, since 2017 BIT Alliance members have become the drivers of the organisation's agenda, taking ownership of the association. In 2018/19, BIT Alliance worked together with their members and external experts to produce the IT Manifesto for the development of the industry at the national level[4]. This is very significant as the IT Manifesto is the first comprehensive set of demands articulated by the IT industry to government of what key stakeholders can do to support IT industry growth. It is also highly related to improvement of education which can increase employability of youth and the number of youth in IT, including women. [BIH09]

Today, BIT Alliance is involved in various activities. Since Aug 2017 BIT Alliance has been providing free courses on programming (introduction to programming) for children aged 13-17 in different cities in B&H. More than 100 students have received free training in order to offer the courses to children. About 1100 kids have gone through the training to date. This is a significant change since trainings like these can enhance the long-term supply of people entering an IT career. The more trainings like these are implemented the more awareness raising is done among youth about IT and this should result in more youth choosing IT as a career. However, the time before these potential young people get to an age for employment is rather long. [BIH01] Since December 2018, the IT career portal of BIT Alliance[5] has been informing young people about IT career options in B&H and guides youth on how to become part of the IT sector. By August 2019 it has attracted almost 29,000 unique visitors and 800 registered users. It has influenced 40% of unemployed users to start retraining or upskilling in IT. Having such a platform is a significant change in the B&H context as it increases the interest of and information for young people about IT careers and, hence, can influence the supply of people in IT. [BIH05]

Indeed, a trend that can be observed since about 2017 is that more young people want to work in IT [BIH31]. While the reason for this is difficult to pin down, it could be linked to BIT Alliance's continuous efforts to promote and demystify the industry through increased media appearances and programmes in schools and universities. Also, the mentioned IT Career Portal strengthened the promotion of the industry among young people.

Cooperation in the IT sector among different actors is working well and has a positive effect. Since 2014/2015 BIT Alliance has created an environment of confidence, which encourages joint action and removes the trust barriers among IT companies, which is a significant change, contributing to a healthy sector with growth potential. [BIH19] In this context, the concept of co-working spaces has seen growing popularity. Between 2014 and 2019, nine co-working spaces (also offering education services) have opened up in cities across the country (e.g. Sarajevo, Zenica, Banja Luka, Mostar etc). [BIH23]

The IT sector is also gaining support from the public sector, in particular from the Government of Sarajevo Canton. In 2017, the Government of Sarajevo Canton established a council for the development of the IT industry. [BIH14] Furthermore, since 2017, the Government of Sarajevo Canon has been allocating 300 000 BAM for informal training schemes within IT companies. The Government of Sarajevo Canton has also, through its ministries, allocated 280.000 KM to fund scholarships for students of two 2-year short programmes at Faculty of Math and Natural Science and Faculty of Electrical Engineering. This is very significant as it enabled private IT companies and IT training providers to expand the supply of skilled IT professionals, thus enabling further growth of IT companies. [BIH11] In 2019, the government of Canton Sarajevo also started a public debate on the establishment of a Tech Park. IT companies and NGOs were invited by the government of Canton Sarajevo to discuss.

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[4] https://bit-alliance.ba/itmanifesto/

[5] https://itkarijera.ba/

However, no clear action plan or follow up plan is publicly available to date. For now, talks are being held with some IT companies that could be potential users of space of tech park. This is potentially significant as it will allow IT companies to grow and collaborate further. [BIH18]

There are a number of trends that show that the IT sector in B&H is very vibrant. IT companies are building new office buildings that are attractive working places for their staff. For example, in 2017 the company Infobip opened a brand-new campus of 17,000 square meters. In 2019, they were also in direct conversations with the Government committing to buy office space in the tech park which will be built in the near future in Sarajevo. [BiH20] International donors like the Delegation of the EU, UNDP and GIZ started adding IT-related programmes in B&H in 2019. [BIH10] As a reaction, since 2019, the local development agency EDA started adding and integrating IT components in five new project proposals it developed in B&H. [BIH13] According to representatives from EDA who were asked to be critical friends for the project, EDA is trying with their new project proposals to create links between IT firms and firms from traditional manufacturing sectors, as, according to their research, collaboration between these sectors is not sufficiently explored but could overcome current challenges facing traditional sectors in the fields of innovation, strengthening pre- and post-production capacities, digitalisation, etc. As a result of their efforts, EDA has had more contact with IT companies, and secured additional support from public institutions and organisations operating in the IT field e.g. the Ministry for Scientific and Technological Development, Higher Education and Information Society of the Republic Srpska, and Innovation Centre Banja Luka covering a range of topics, such as digitalisation, smart cities / solutions.

5.2.2 How MarketMakers contributed to these changes

In the period when MarketMakers launched its initiative to support the establishment and technically support the articulation of BIT Alliance, companies almost did not have any collaborative relationships among themselves. Moreover, the practice of poaching talents from each other resulted in an antagonistic and non-collaborative climate within the industry. Hence, one of the most important contributions to many of these changes is that MarketMakers supported the establishment of the BIT Alliance during the project's first phase. In that sense, the project triggered changes that are now independently developed and implemented by BIT Alliance, including the Alliance's ability to attract new members. [BIH03, r=2] Also MarketMakers' contribution to the IT Manifesto can be seen in this way. [BIH09, r=2]

In the opinion of the project team, despite a non-collaborative environment initially, it would be expected for companies to start collaborating at some point even without support of the project: the inflationary pressures on wages, induced by under-supply of IT professionals and harsh competition between companies for people would undermine the growth potential of the companies and therefore the team believes they would act once a critical point had been reached. However, MarketMakers' intervention likely accelerated the cooperation between companies and put that collaboration into sustainable and growable shape in the form of BIT Alliance. An alternative outcome would have been a more segmented industry - whose growth is slowed-down/undermined by competition for labour force and lack of cooperation – even leading to a more rudimental IT ecosystem.

In addition to supporting the establishment of BIT Alliance, MarketMakers also promoted informal education during the first phase by supporting the 6 months long IT training programme "BIT CAMP" of the BIT Alliance. [BIH01, r=2] More recently, MarketMakers directly initiated the development of the IT Career portal and assisted BIT Alliance through a partnership agreement to structure the portal and making it financially sustainable. Furthermore, MarketMakers contributed in content development for and marketing of the portal. [BIH05, r=5] The contribution of MarketMakers to the trend that more young people want to work in IT can, however, not be discerned. [BIH31, r=0]

MarketMakers contributed to the well-working coordination of the IT sector by supporting the establishment of BIT Alliance in the first phase. [BIH19, r=3] In addition, in 2015 MarketMakers supported the first co-working space in Sarajevo for IT companies, HUB387, whose mission was to enhance collaboration and cooperation among IT companies. The business model of HUB387 was successful and it was replicated in the form of the HUB385 in Zagreb, Croatia. HUB387 was an inspiration and guidance for other co-working spaces and hubs opening-up across the B&H. [BIH23, r=2] The role of

MarketMakers in supporting the HUB387 was confirmed by Jovana Musić, Managing Director of HUB387, who reviewed the narrative as a critical friend.

The changes in priorities of the Government of Canton Sarajevo can be traced back to a comprehensive study supported by MarketMakers, which provides evidence-informed recommendations to the government. MarketMakers specifically targeted the Sarajevo cantonal government, which is capable and able to implement changes in a quick and efficient manner. MarketMakers has also created a wide coalition of partners, including cantonal development agency SERDA to further advocate for government action. [BiH14, r=3; BiH11, r=3; BiH18, r=2]

Indirectly, MarketMakers has also contributed to the change on a political level as the establishment of BIT Alliance and its membership growth has enabled the industry to have a political voice and to be recognised as a serious and important agent in policy discourse. The project team believes that government would tailor some policies and provide some measures around the promotion of the IT sector anyhow, even without BIT Alliance lobbying for the sector, primarily due to regional trends and growing importance of tech industries globally. But if BIT Alliance had not been not established, that would probably be more of a one-way, government-led and transactional form of the sectoral development. The industry would likely not be able to actively influence and shape policy solutions to the same extent.

MarketMakers did not directly contribute to the decisions of companies to build new office buildings [BIH20, r=0] or other donors to add IT more prominently in their programming [BIH10, r=0]. Yet it supported EDA to apply for IT-related projects through the transfer of knowledge (IT sector insights project documents), capacity building (e.g. study visits, research) and connecting EDA to BIT Alliance for exchange of information and materials. [BIH13, r=3]

MarketMakers' contribution to BIT Alliance and its current work was confirmed by BIT Alliance's Operational Manager **Haris Palalija,** who was interviewed by the consuntants and then also reviewed the outcome narrative as a critical friend. During the interview, Mr. Palalija gave the impression that BIT Alliance is standing on its own feed now and is implementing a lot of different activities. Yet he mentioned two specific areas of work where they currently collaborate with MarketMakers:

- MarketMakers supported a needs assessment for education institutions and is building the relationship between BIT Alliance and these institutions.
- MarketMakers supported awareness raising among youth to enter IT careers and charge mindsets (as young people believe that what the parents achieved is all they can achieve).

5.3 Changes in skills development and career guidance

5.3.1 Description of the changes

In order to get access to the skills they need, IT companies, including Api Lab, Mistral and Lanaco, have been running in-company academies since 2014/2015. Api Lab trains ca. 150 people annually, Mistral ca. 20 people annually (so far 73 finished since academy started), Lanaco ca. 20 people per year. This is very significant because these trainings are enabling youth to get into IT by giving them the skills and job opportunities at the same time. [BIH07]

At the level of tertiary education, in 2018, the Faculty of Math and Natural Science and the Faculty of Electrical Engineering have each introduced a brand-new two-year programme in the field of software development, as a result of policy change in the Sarajevo Canton. In 2019 Faculty of Math and Natural Science had 80 students enrolled and the Faculty of Engineering 50. This is a significant change because it has the potential to reach both scale and sustainability and it will increase the number of available people in the workforce in line with IT companies' needs. [BIH21]

Financing non-formal trainings has been a challenge for young people. To address this, MF Bank has launched a new financial product in 2019 that provides zero-interest loans to unemployed people who enrol in IT trainings with two training providers (Lanaco, Technetis) in Banja Luka. [BIH06]

There have also been changes with regard to career guidance. From 2019, Technetis, Lanaco, DVC/HUBL and Lilium enhanced/introduced the career guidance function within certain training programmes by providing contacts for potential internship or job opportunities for students after they successfully finish the course. [BIH02]

5.3.2 How MarketMakers contributed to these changes

The internal training academies in IT companies have likely been inspired by BIT Camp, which was supported by MarketMakers as a pioneering initiative in non-formal education. BIT Camp was subsidised by two donors. [BIH07, r=1] In that sense, BIT Camp served as a pilot programme which showed the value of companies themselves stepping into the role of informal educators. The urgent problem of high unmet demand for a skilled labour force within the industry was lessened by the significant number of trainees coming out of BIT Camp. After BIT Camp was finished, many companies that were a part of the pilot started their own in-company academies. Hence, according to the MarketMakers team, had there not been BIT Camp as a pilot project, the local IT companies might not have recognised the value and potential in providing education to the labour force themselves, thus, the sector might not have the quality and numerous in-company academies.

To make a comparison, the situation in Serbia is very comparable in terms of culture, labour force and market maturity. The Serbian market today has no notable IT companies having in-company academies and providing education themselves. Instead, there are two leading education centres that provide informal education and training of IT skills (including IT Academy, which is also present in B&H). It is likely that the scenario would be same or similar in B&H had the project not taken steps to encourage IT companies to start their in-company academies.

Regarding the two new tertiary level IT courses, MarketMakers' support was indirect through BIT Alliance and the IT study, which promoted the policy change at the universities. [BiH21, r=2]

The financial product for financing of IT trainings was created by MarketMakers in cooperation with EDA and MF bank, based on market analysis. To make it possible for the bank to adopt the product, MarketMakers created a guarantee fund, thus lowering risk for the bank. [BiH06, r=5]

In the case of the enhanced career guidance and job matching, MarketMakers developed the idea. In the case of Lanaco and Technetis, EDA in cooperation with these companies helps to find the positions in companies, Lilium and DVC do it themselves. [BIH02, r=5]

6 Conclusions for MarketMakers

The IT sector in B&H has seen many changes over the last couple of years. MarketMakers has clearly contributed to some of these changes through a number of outcomes that were documented during this Outcome Harvesting process. That these outcomes actually have taken place can be supported with credible evidence collected by the project.

Changes to which MarketMakers contributed were found in the following areas:

- The way companies in the IT sector collaborate and how the sector is coordinated and represented by an industry body.
- Interest in the sector by the Government (particularly of the Canton Sarajevo).
- How skills development is delivered by private and public training providers.
- How young people are guided towards a career in IT.

In order to achieve this, MarketMakers has worked with a wide range of actors in the public and private sectors, for example non-formal training providers like Lanaco and Technetis, the sector association BIT Alliance and the Government of Canton Sarajevo. The main types of changes reflected in these actors are changes in practices, behaviour and actions and in collaboration or coordination among actors.

In total, MarketMakers has harvested 14 outcomes, out of which 10 are judged by the team as either significant or very significant with regards to the project achieving its development objective of young women and men being integrated into and profit from the labour market through their realisation of additional employment and self-employment opportunities. The project achieved mainly outcomes related to skills development and partly to job creation with only one outcome tagged as change in job matching

The types of outcomes and the list of actors that have changed their behaviour shows that the project has had effects on the micro, meso, and meta levels of the B&H economy with regards to the IT sector. On the micro-level, the project has had some indirect influence on changes in IT companies to provide their own trainings, leading to more and better options for getting skills training. Changes can also be

found on the micro level in companies who explore very specific, strategic services like Lanaco and Technetis (training financing for young people). On the meso level, the most significant change the project has achieved is to contribute to the establishment of BIT Alliance, the IT sector business association. Furthermore, the changes the project contributed to also touch on the provision of IT skills through formal education, starting in primary schools but also including tertiary-level training courses. On the meta level, the project has for example contributed to changes in the perception of the IT sector as a potential career path for children and young graduates and their parents. The project is also improving the dynamics between the different levels by improving communication, coordination and collaboration among different actors. The changes on all these levels and the improved dynamics between the levels indicates that the project is having a systemic effect on the sector's competitiveness. The project also makes a convincing argument when it explains the contributions of the project to these outcomes, again supported by evidence. In a complex context where many different factors contribute to an outcome, figuring out the exact contribution of a project to an observed change is not always easy and the contribution cannot be split exactly into shares of how much a specific factor has contributed to it. Hence, the assessment of the contribution strength (given between 0 for no contribution at all and 5 for a change that would not have happened without the project) are necessarily subjective. Nevertheless, they give a good indication of the project team's assessment of their contribution.

Contribution levels were assessed in a critical way by the project team, and the team also made it clear that in many cases the change might have happened also without the project's contribution – albeit probably slower and maybe in a less sustainable way. MarketMakers invested most in facilitating dialogue, building coalitions or collaboration among actors, co-developing business models and research, studies and making data available to achieve the harvested outcomes.

It has to be noted, however, that compared to the other projects assessed, many contributions of MarketMakers to currently observable Outcomes in the IT sector were assessed to be rather indirect, often through achievements from Phase 1 of the project. The most influential contribution the project has made is to support the establishment of BIT Alliance, which is now an important player in the sector but, while still collaborating with the project on some interventions, largely acting independently of the project. Half of the outcomes have been observed either already during the first phase or at the beginning of the second phase (2017). Another indication of the more indirect effects of MarketMakers is that 11 out of 14 outcomes have a contribution rating of 1 to 3 and only 3 have a rating of 5 (none were rated 4). Nevertheless, given that the project continues to focus on the IT sector, more outcomes that are results of interventions of Phase 2 can be expected but are not observable yet.

The aim of the Outcome Harvesting process was to give us some glances at key changes that the project contributed to and that, in the assessment of the project team, had an effect on the trajectory of the sector. We do trust the sincerity and self-critical attitude in how the project team has assessed its own effects on the sector – which are qualities that are cultivated in all the Helvetas and their partners' projects in the region. This was confirmed by the positive feedback by a number of external 'critical friends' who had a look at the narrative that tells the story of the changes. Due the conscious choice for the particular methodology used, the findings do not tell the story of how the whole IT sector changed but focus particularly on those changes the project contributed to. We therefore cannot say how significant the overall contribution of the project has been in shaping the trajectory of the IT sector in B&H. Given the complexity of the interconnected factors that make such a sector work (or not) and change, it is almost impossible to untangle key threads of contribution over time and which factors where decisive in nudging the sector in a positive direction. Yet the critical friends all confirmed that the project has played an important role in shaping the sector's trajectory.

Annex I: Table with Outcomes

Outcome number	Outcome statement	Significance statement	Contribution of the project
BIH01	Since Aug 2017, Bit Alliance has been providing free courses on programming (introduction to programming) for kids in different cities in B&H. About 100+ students have received free training to offer the courses to kids. 1100 kids have gone through the training to date.	Significant Trainings can contribute to increase of supply of workforce in IT that is scarce, in the future. The more trainings like these are implemented the more awareness raising is done among youth about IT and this should result in more youth choosing IT as a career. However, the timeline here is long before these potential young people became at age for employment. This has scale.	2 In addition to establishing the BIT Alliance, MarketMakers started to promote informal education during the first phase by supporting a 6 months long IT training programme "BIT CAMP"
BIH02	From 2019, Technetis, Lanaco, DVC/HUBL and Lilium enhanced the career guidance function within certain training programmes by providing contacts for potential internship or job opportunities for students after they successfully finish the course.	Slightly significant Slightly because this is limited in scale and questionable for sustainability.	5 MarketMakers developed the idea. In the case of Lanaco and Technetis, EDA helps to find the positions in companies, Lilium and DVC do it themselves.
BIH03	Starting off with six members (AtlantBH, Green River Media, PING, Authority Partners, Symphony and ZIRA), by September 2019, BIT Alliance reached 60 members (some of them are Academy387 and IDK studio).	Significant. The more IT companies are members of BIT Alliance the better and more efficiently they can advocate for better trainings, more financial support from the state for training, better legal framework etc.	2 MarketMakers has supported establishing Bit Alliance. In that sense, the project triggered the change and now BA is independently developing.
BIH05	Since December 2018, the IT career portal of BIT Alliance has been informing young people about IT career options in BiH and guides youth on how to become part of the IT sector. By August 2019 it has attracted 28,900+ unique visitors and 800 registered users. It has influenced 40% of unemployed (surveyed) users to start retraining or upskilling in IT (https://itkarijera.ba/)	Significant. IT portal increases interest of the young for working in IT and can influence the supply of people in IT. It has scale and is sustainable.	5 MarketMakers project initiated the IT Career portal development and assisted BIT Alliance through a partnership agreement to structure portal building and making it sustainable. Furthermore, MarketMakers contributed in content development and marketing of the portal.
BIH06	In 2019, MF Bank has adopted a new financial product that provides zero-interest loans to unemployed people who enrol in IT trainings with two training providers (Lanaco, Technetis) in Banja Luka.	Slightly significant It enabled unemployed people, who want to be retrained, to access to finance necessary for financing IT trainings. The number that this scheme	5 This financial product for financing of IT trainings was created by MarketMakers, based on market analysis. To make it possible for the bank to adopt the product,

		can influence is low and sustainability is questionable.	MarketMakers created a guarantee fund, thus lowering risk for the bank.
BIH07	Since 2014/2015, IT companies, including Api Lab, Mistral and Lanaco, have been running in-company academies. Api Lab trains ca. 150 people annually, Mistral ca. 20 people annually (so far 73 finished since academy started), Lanaco ca. 20 people per year.	Very significant These trainings are enabling youth to get into IT by giving them the skills and job opportunities. Has both scale and sustainability.	1 Company academies may be attributed to MM BIT Camp initiative as a pioneer in the market. BIT Camp was subsidised by two donors and maybe the companies themselves (limited evidence & anecdotal).
BIH09	Since 2017, BIT Alliance members have become the drivers of the agenda and took ownership of the association. In 2018/19, BIT Alliance worked together with their members and external experts to produce the IT Manifesto for the development of the industry at the national level (<https://bit-alliance.ba/itmanifesto/>).	Very significant. The IT Manifesto is the first comprehensive set of demands articulated by the IT industry (to government) of what key stakeholders can do to support IT industry growth and this is highly related to improvement of education which can increase employability of youth and no. of youth in IT, including women.	2 The IT Manifesto was coordinated and produced by BIT Alliance without direct MarketMakers involvement. Yet BIT Alliance was established with help of MarketMakers.
BIH11	Since 2017, the Government of Sarajevo Canon has been allocating 300 000 BAM for informal training schemes within IT companies. The Government of Sarajevo Canton has also through its ministries allocated 280.000 KM to fund scholarships for students of the two 2-year short programmes at Faculty of Math and Natural Science and Faculty of Electrical Engineering.	Very significant. It enabled IT private companies and IT training providers to expand the supply of skilled IT professionals, thus enabling further growth of IT companies.	3 MarketMakers has supported publishing a comprehensive study that provides evidence-informed recommendations to the government. MarketMakers specifically targeted the cantonal government that is capable and able to implement changes in a quick and efficient manner. MarketMakers has also created a wide coalition of partners, including cantonal development agency SERDA to further advocate for government action.
BIH13	Since 2019, EDA for the first time started adding and integrating IT components in five new project proposals it developed in BiH.	Significant EDA is now equipped to engage and implement cross entity projects which address the needs of the IT sector in BiH such as the creation of new business opportunities for IT companies and the facilitation of digitalisation of businesses and government environments in BiH. Previously, EDA did not engage / apply for projects which had an IT component included.	3 It was supported by MarketMakers through the transfer of knowledge (IT sector insights project documents), capacity building (e.g. study visits, research) and connecting EDA to BIT Alliance for exchange of information and materials.
BiH14	In 2017, the Government of Sarajevo Canton established a council for the development of the IT industry.	Minor	3

		Although the council is formed, it is not active, so this is not significant.	MarketMakers has supported publishing a comprehensive study that provides evidence-informed recommendations to the government. MarketMakers specifically targeted the cantonal government that is capable and able to implement changes in a quick and efficient manner. MarketMakers has also created a wide coalition of partners, including cantonal development agency SERDA to further advocate for government action.
BiH18	In 2019, the government of Canton Sarajevo started public debate on the topic of establishing a Tech Park. IT companies and NGOs were invited by the government of Sarajevo Canton to discuss the building of such a Park. However, no clear action plan or follow up plan is publicly available. For now, talks are being held with some IT companies that could be potential users of space of tech park.	Significant Potentially significant because this will allow IT companies to grow and collaborate further once the park is built but this will not be during project life.	2 MarketMakers has supported publishing a comprehensive study that provides evidence-informed recommendations to the government. MarketMakers specifically targeted the cantonal government that is capable and able to implement changes in a quick and efficient manner. MarketMakers has also created a wide coalition of partners, including cantonal development agency SERDA to further advocate for government action.
BIH19	In 2014/2015 BIT Alliance created an environment of confidence, which encourages joint action and removes the trust barriers among IT companies.	Significant Significant because cooperation leads to growth of IT sector, lowering barriers for further growth and assume long-term job creation...this has scale and sustainability	3 MarketMakers invested in creation of BIT A. Partnership Agreement with BIT A from 1st phase.
BiH21	In 2018, the Faculty of Math and Natural Science and the Faculty of Electrical Engineering have each introduced a new two-year programme in the field of software development, as a result of policy change in the Sarajevo Canton. In 2019 Faculty of Math and Natural Science had 80 students enrolled and the Faculty of Engineering 50	Significant Significant because it has both scale and sustainability, it will increase no of available workforce that is in line with IT needs	2 MarketMakers provided support to the establishment of Bit Alliance, which initiated this policy change. Also, MM initiated the IT study which suggested establishment of new IT programmes.
BiH23	Between 2014 and 2019, nine co-working spaces (also offering education services) have opened up in cities across the country (e.g. Sarajevo, Zenica, Banja Luka, Mostar etc).	Minor Relatively low significance/minor significance because we do not have proof that coworking spaces have had an effect on growth of companies and job creation.	2 In 2015 MarketMakers supported first co-working space in Sarajevo for IT companies, HUB387, whose mission was to enhance collaboration and cooperation among IT companies. The business model of HUB387 was so successful that it was sold on and replicated regionally by opening of HUB385 in Zagreb, Croatia. Hub387 was an inspiration and guidance for other co-working spaces and hubs opening-up across the country.

Annex 2: Participants list workshops

Workshop 1, 11-12 October 2019, Sarajevo
- Željko Karanović, MarketMakers
- Daniel Nippard, MarketMakers
- Dinka Majanović, MarketMakers
- Amar Numanović, MarketMakers
- Sara Lerota, MarketMakers
- Selma Begović, MarketMakers
- Adis Baručija, MarketMakers
- Gorčin Dizdar, MarketMakers
- Sara Hussain, MarketMakers
- Amer Biber, MarketMakers
- Nermana Ajanović, Kolektiv / posao.ba
- Zenebe Uraguchi, Helvetas EED
- Pavle Miovčić, EDA
- Goran Jovanović, EDA
- Niklaus Waldvogel, EYE Kosovo

Workshop 2, 19-20 November 2019, Tirana
- Željko Karanović, MarketMakers
- Dinka Majanović, MarketMakers
- Sara Lerota, MarketMakers
- Selma Begović, MarketMakers
- Muamer Niksiç, EYE Kosovo

Workshop 3, 20-22 January 2020, Belgrade
MarketMakers delegation:
- Željko Karanović, MarketMakers
- Amar Numanović, MarketMakers
- Sara Lerota, MarketMakers
- Selma Begović, MarketMakers
- Adis Baručija, MarketMakers
- Nermana Ajanović, Kolektiv / posao.ba