Abstract
The aim of this paper is to show that the organizational impact of training can be measured with credibility and reasonable allocation of resources, using Return on Investment (RoI) methodology, which has been piloted and implemented in the training system of Bosnia and Herzegovina (BiH). Furthermore, it discusses the achievement in the process of the evaluation of training programmes and it provides an analysis of the sequential process of the RoI model accompanied by data identification, and collection and analysis for performance assessment. To conclude, the paper considers the necessity of the continuous improvements of strategic training policies as one of the key components of strategic human resources management in the civil service system.

Key words
Strategic human resources development, training system, evaluation of training programmes, training impact assessment.

Introduction
Strategic human resources development (HRD) policies are closely associated with that aspect of strategic human resources management (HRM), which is concerned with investing in people and developing the organization’s human capital (Armstrong, 2011). Capacity building and training has over the years been and still is a key instrument in nearly all development cooperation programmes provided by donors, and as such should be considered an effective tool for making progress in human development (Sorensen, 2011).

However, while support to capacity building and training has included, presumably, well-designed and implemented programmes based on needs assessments, too few efforts have been made to evaluate the training delivery at a comprehensive scale, i.e. beyond the immediate reaction to the training course itself and acquired knowledge and skills. Putting it simply, the training function and the participants often have not been held accountable for the transfer of learning to the work setting and the impact on key organizational measures (Phillips, 2000).

Too often, training has been viewed as a line-management responsibility or a responsibility of the HR department. Often, the training staff, managers and others have been led to believe that the effects of the training cannot be measured credibly and cannot be isolated from the influence of other performance-improvement factors or, that it is too difficult or too resource-intensive to measure the effects of trainings (Silberman, 2006).

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Depending on the organization and the culture, one or more of these factors contribute to lack of evidence that training brings benefits to the organization, which are greater than the costs incurred. In the case of BiH it does not mean that there has not been any impact, it only means that there was a lack of information to make a well-informed judgement. The training cycle in BiH is complete, meaning that the information circulation from training needs analysis up to training evaluation is real and measurable, but only for specified training programmes (Hoof,
2015). The following sections contain detailed information on piloting training programmes with the whole evaluation methodology.

I. The RoI methodology: The case of BiH

I.1 Country background

The BiH’s administrative organization is structurally defined by the Dayton Peace Agreement. The country is composed of two entities: The Federation of BiH (FBiH) and the Republic of Srpska (RS) and the Brčko District (BD).

Image 1: Map of Bosnia and Herzegovina

The civil service system in BiH is fragmented and, as such it depicts the different civil service laws at each of the administrative levels in BiH. Within such specific socio-political context with inadequate levels of administrative and fiscal capacities, civil service agencies, at the state and other entities’ levels are in charge of the implementation of the civil service legislation which, among others, cover the right and obligation of civil servants to continuous education. In BiH, training, as a part of life-long education, is widely understood as a critical tool for improving quality of the services provided by the public administration.

I.2 RoI process on Project Cycle Management

In the training system\(^2\) for municipalities and cities in BiH, within the Project “Municipality Training System”\(^3\), a training impact assessment mechanism has been developed and it has been piloted in a programme on Project Cycle Management (PCM). It delivered valuable information of effectiveness of that training programme. The evaluation process has been based on a systematic approach using the RoI\(^4\) impact assessment methodology, a process guide with practical tools for operationalizing the evaluation system, and conduct of workshops for training managers and piloting of a training programme for validating the

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2 The training system in BiH is divided between two entities. Local governments are politically and administratively autonomous units with their own competences and revenue-raising powers with directly elected mayors and councillors. There are 145 local governments in BiH. The average population size of a local self-governments is approximately 26,000 inhabitants.

3 A Project implemented by United Nations Development Programme and financially supported by SIDA in BiH, started in January 2008 and finished in December 2015.

4 Jack and Patricia Phillips have since developed a results-based evaluation of projects and training programmes (see also http://www.roiinstitute.net).
methodology and tools. The RoI methodology has been chosen because it has proven to be a flexible and systematic methodology that others can learn and implement, in order to measure and assess the impact of trainings. This methodology comprises of a five-level chain of impact (Reaction, Learning, Application, Impact and RoI) as it is illustrated in Table 1.

Table 1: Five-level chain of impact

<table>
<thead>
<tr>
<th>CHAIN OF IMPACT</th>
<th>VALUE OF INFORMATION</th>
<th>CUSTOMER FOCUS</th>
<th>FREQUENCY OF USE</th>
<th>DIFFICULTY OF ASSESSMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.Reaction</td>
<td>Lowest</td>
<td>Participants</td>
<td>Frequent</td>
<td>Easy</td>
</tr>
<tr>
<td>2.Learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.Application</td>
<td></td>
<td>Stakeholders</td>
<td>Infrequent</td>
<td>Difficult</td>
</tr>
<tr>
<td>4.Impact</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.RoI</td>
<td>Highest</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: (Phillips, 2000)

As it is illustrated on the left side of the table, for training to produce measurable results, the chain of impact must occur. In evaluating training programmes, evidence of results must be collected at each level up to the top one that is included, in order to determine that this linkage exists. For example, if level 3 will be for a selected training programme as the highest level evaluated, then the data must be collected at level 3 and level 2 to show the chain of impact, but it is not necessary to collect data for levels 4 and 5. Simple evaluations such as at level 1 – reaction - are done more frequently than are evaluations at higher levels, which involve more complexity.

As already mentioned, the sample table can be used to gather data and get feedback of how training is making a contribution to the organization. Having in mind that evaluation at levels 4 and 5 consumes the most resources, it is suggested that evaluation at these levels are reserved for training programmes that meet one or more of the following criteria (Phillips, 2000):

- The life cycle of the programme is such that it is expected to be effective for at least 12 to 18 months;
- The programme is important in implementing the organization’s strategies or meeting the organization’s goals;
- The cost of the programme is in the upper 20% of the training budget;
- The programme has a large target audience;
- The programme is highly visible;
- Management has expressed an interest in the programme.

The Systematic RoI approach towards Phillips et al includes 10 steps. Figure 1 illustrates each component of the RoI Process. Each component is given a number.
Figure 1: The RoI model and process

Source (Phillips, 2000)
Step 1: “Developing training objective”. These range from qualitative to quantitative, and they define precisely what will occur as the training is implemented in the organization. Objectives parallel the levels of evaluation in Table 1. They also provide guidance as to the outcome expected from the training and can serve as important communication tool among different stakeholders. Determining long-term training objectives may take considerable time and effort, but it is worth it. The result of this phase of the process is the identification of the specific problem/opportunity, the identification of the performance gap and why it exists, and identification of the appropriate solution, including training to close the gap. Achieving the best results requires that training needs are properly identified and that relevant objectives are developed. The objectives provide a basis for measuring success at each of the levels.

Table 2: Levels of objectives

<table>
<thead>
<tr>
<th>LEVEL OF OBJECTIVES</th>
<th>FOCUS OF OBJECTIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1 - Satisfaction/Reaction</td>
<td>Satisfaction and reaction to the training</td>
</tr>
<tr>
<td>Level 2 - Learning</td>
<td>Specific knowledge and skill(s) to be developed during the training</td>
</tr>
<tr>
<td>Level 3 - Application/Implementation</td>
<td>Defines behaviour that must change as the knowledge and skills are applied in the work setting following the delivery of training</td>
</tr>
<tr>
<td>Level 4 - Business Impact</td>
<td>Specific business measures that will change or improve as a result of the application of the training</td>
</tr>
<tr>
<td>Level 5 - RoI</td>
<td>Return of investment from the implementation of the training, comparing costs with benefits.</td>
</tr>
</tbody>
</table>

Step 2: “Develop evaluation plans”. This is necessary in order to specify in detail the desired outcomes of the training. The best time to develop evaluation plans is during the needs-assessment and programme design phases. Without this focus, training programmes often go astray and are implemented with the ultimate expectation being only learning. At this point it is helpful to review the types of measures that can be influenced by training. During this phase, the data collection plan should be developed. Choices are based on the availability of data, the quality of data and the willingness and cooperation of data sources.

Step 3: “Collect data during the training”. This is the most crucial step of the evaluation process because without data there can be no evidence of programme impact and no evaluation study. It is necessary to collect data at all levels because of the chain of impact that must exist for a training programme to be successful. In many organizations, 100% of training initiatives are targeted for level-1 evaluation. This is easily achievable because it is simple, inexpensive, and takes little time to design the instruments and to collect and analyse data. A level-1 evaluation asks participants only for their reactions to the training. Obtaining such kind of data can be

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5 For example: follow-up surveys satisfaction; follow-up questionnaires measure reaction; on-the-job observation; tests and assessments; interviews measure reaction; focus groups; action plans; performance contracts with detailed and specific outcomes expected, etc.
useful in identifying problems in programme design, and making improvements in programme delivery and timing. However, level-1 data is often indefinite because participants do not always give candid responses regarding the training and, even when they do, they may be influenced by recent attention they have received from the trainer. At level-2 evaluation, a variety of techniques can be used to measure learning but the result in using these techniques depends on availability of budget, time limitation, perception of the training participants, etc. Testing is important for measuring learning in training programme evaluations. Pre- and post-training comparisons using tests are very common. Different types of tests can be used such as written tests, performance tests using simulation tools, multimedia-based tests using computers and video. In these situations, it is important for participants to be monitored. The responsibility for collecting evaluation data at level 1 and 2 may rest with the trainer, a programme coordinator, or the person who is entitled to do monitoring.

Step 4: “Collect data after training”. The choice of methods to collect data after a programme has been conducted depends on a variety of factors such as the type of programme, the willingness of the affected population to cooperate, the constraints posed by the organization requesting the training, the availability of data, the cost of collecting data and the accuracy of the data. Data collection may utilize feedback instruments: follow-up questionnaires, follow-up focus groups, assignments related to training, action plans, performance contracting, interviews, and data from the organization’s records. The availability of data is the first major issue faced by an evaluator. In this phase the most credible data sources are the records and the reports of the organization requesting the training. Records that reflect performance in a work unit, department, division, etc can be individual- or group-based. During this process participants are the most widely used source and they are frequently in a position to provide rich data. They are credible, since they are the individuals who have achieved the performance and are often the most knowledgeable about. Furthermore, in some situations, participants’ supervisors, as well as internal and external groups such as the training and development staff, subject-matter experts, external consultants, may provide input on the success of the participants as they apply the skills and knowledge acquired in the programme. The cost of the training is tabulated in this step and it will be used later in the RoI calculation.

Step 5: “Isolate the effects of training”. In this process, one or more strategies are used to isolate the effects of the training. Examples are: use of control group arrangement, trend line analysis, participants’ estimate, control groups’ estimate, experts’ estimate, management’ estimate. In the isolating process, all of the key factors that may have contributed to the performance improvement should be identified. There are many factors, events, and processes that can influence output variables even though the training is designed to focus directly on a specific improvement.

Step 6: “Convert data to monetary values”. Converting data to monetary values is the first phase in putting training initiatives on the same level as other investments that organizations make. It is related to introduction of a systematic approach to transforming outcome data into

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6 When collecting data from individuals or groups these questions may be asked: 1. How did you apply what you learned in this programme? 2. What was the impact of these efforts in your work unit? 3. What measures were changed in your work unit and how much did they change? What is the monetary value of these changes?, etc.

7 For example conducting interviews with training programme participants; performance officers; supervisors of participants; middle and top management, etc.
monetary terms. It identifies how to categorize hard and soft data and how to select the best strategies for converting data to monetary values for specific programmes. The following process should be employed to convert data to monetary values:

1. Determine the unit of improvements, e.g. time savings (what measure is the programme influencing?);
2. Determine the value of each unit (what is the value of one unit of the measure);
3. Determine the performance level change (how much did the measure change during the reporting period);
4. Calculate the improvement money (the value of one unit of improvement multiplied by the amount of change equals to monetary value of the improvement).

If some data cannot be converted in order to complete the calculation of the training overall cost, these data can be reported as business impact results as for example: Improvements in customer or employee satisfaction or as intangible benefits when the business impact cannot be expresses as a hard value.

Step 7: “Identify the cost of the training”. Although the total training budget is usually easily determined, it is more difficult to determine the actual cost of a specific programme, including indirect costs related to it. In this phase, it is important to capture fully loaded costs. This goes beyond the direct costs of training and includes the time that participants are involved in training, including their salaries, benefits and other overhead.

Step 8: “Calculate the Return on Investment”. This is done by calculating the benefit ratio and the return on investment. The benefit/cost ratio is the monetary benefit of the training programme or simply said the benefit resulted from the intervention divided by the costs. In formula form it is:

\[ BCR = \frac{\text{Total course benefit}}{\text{Total course costs}} \]

The Return on Investment uses the net benefits divided by the costs. The net benefits are the training programme benefits minus the costs.

In formula form the RoI:

\[ ROI = \frac{(\text{Total course benefit} - \text{Course costs})}{\text{Course costs}} \times 100\% \]

Step 9: “Identify Intangible benefits”. This is done by converting intangible effects of the training programme. During the data analysis, every attempt is made to convert all data to monetary values. However, if the conversion process is too subjective or inaccurate and the resulting values lose credibility in the process, the data are listed as intangible benefits with appropriate explanation. Intangible benefits can be used as additional evidence of a training programme’s success and can be presented as supportive qualitative data. Intangibles are not expressed in dollars or cents, but they are still a very important part of the overall evaluation.

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8 Hard data are easy to measure, very objective and easy to assign to monetary values (output of some activities, cost, quality, time, etc).
9 Soft data are not easy to measure, subjectively based in many cases and difficult to assign to monetary values (job satisfaction, increased confidence, increase in job effectiveness, etc).
10 For example: Increased job satisfaction; improved work climate; increased innovation; improved teamwork; increased cooperation, reduction in conflict; improved communication.
While conducting training needs assessments, there are numerous opportunities to address intangibles. Intangibles may surface on a questionnaire, during an interview, or during a focus group activity. Participants may be one of our best sources in identifying intangibles. Since it is their performance we are trying to improve, they can tell us how things change for them in the organization as they implement the new skills.

Step 10: “Generate an impact study”. When managers make decisions to allocate funds for training, they have a keen interest in the payback resulting from the funding. Having this in mind, it is important to have a brief overview of the entire evaluation process, explaining the basis for the evaluation and the most significant conclusions and recommendations.

III. RoI calculation on Project Cycle Management Course

The Project Cycle Management training programme was selected\textsuperscript{11} for piloting of the RoI evaluation methodology used in the case of BiH. It was a challenge to execute a RoI methodology in the civil service in BiH due to limited accessibility to performance-related data. All the information needed for such analysis were collected from PCM participants. Several tangible success indicators, at all evaluation levels were identified, and they are presented in the following tables (Sorensen, 2013).

- **Level 1 – Reaction:**

The first type of data, reaction from the participants is measured with generic questionnaires which were used to capture reaction and learning data. The sample, used in this evaluation process, constitutes 53.6\% of the total number\textsuperscript{12} of PCM participants. At this level first and foremost the CSA evaluated the immediate satisfaction of the training delivered. The main questions for evaluating this level focused on whether the training and learning were relevant, important and helpful. Feedback data focused also on event support and resources. A composite rating of average 4.2 on a scale from 1 to 5 was achieved relating to the usefulness, suitability, trainer’s approach and methodology of the course observed. After the training, data was collected regularly and analysed by CSA and MTS project team, as well as by the PCM course leader (Table 3).

\textsuperscript{11} This training programme was selected because it was identified as one of the high priorities training programmes during training needs analysis conducted within the MTS project. Also, the PCM training programme contains skills and knowledge capacity building, and specifically determined objectives in the use and application of an important instrument for high quality project design. The programme comprised of three two-day modules and participants were requested to prepare homework in between the three modules. Furthermore, the PCM programme is a critical prerequisite for gaining access to important and large funds for social and economic development of BiH.

\textsuperscript{12} The total number of participants was 289 from 52 local self-government units. A total of 17 PCM courses have been delivered to municipalities since course initiation in 2008 and up to mid-2013.
Table 3: Level 1 - Reaction

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Measure</th>
<th>Method/</th>
<th>Data source</th>
<th>Timing</th>
<th>Feedback / QA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction with course content and instruction delivery</td>
<td>Average at least 4,2 on a 5-point scale</td>
<td>Standard feedback</td>
<td>Participants (internal)</td>
<td>End of training, i.e., after all three training modules</td>
<td>Lead trainer / Civil service Agency; MTS project team</td>
</tr>
<tr>
<td></td>
<td></td>
<td>questionaire</td>
<td>coordinator (external)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coordinator’s checklist</td>
<td>Lead-Trainer/Trainers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead-trainers’ report</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: (Sorensen, 2013)

- **Level 2 - Learning:**

The learning level is foremost skills, knowledge and attitude-driven (SKA). In BiH case study learning is measured to check the progress and achievement of the participants’ SKA. Entry and Exit Quiz tests were used and they related to the training objectives. The results showed that the pre-course test score averaged at 2,3 out of 5 and the post-course test averaged a score of 3,9 out of 5, which demonstrated an increase in learning of almost 70% (Table 4). A majority of participants managed to design a project proposal as a result of the course to be submitted for funding.

Table 4: Level 2 - Learning

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Measure</th>
<th>Method / tools</th>
<th>Data source</th>
<th>Timing</th>
<th>Feedback / QA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall objective: To enable participants to prepare proposals according to EU/national standards</td>
<td>Improvement of questions correctly answered for each of the 9 objectives (before and after).</td>
<td>Entry Quiz based multiple choice on SKA of the subject (25+ questions) – at least two questions per objective – three or more for important objectives</td>
<td>Participants (internal)</td>
<td>During and end of all three training modules</td>
<td>Lead trainer / Civil service agency; MTS project team</td>
</tr>
<tr>
<td>Specific objectives13</td>
<td></td>
<td>End Quiz based multiple choice on SKA of the subject (25+ questions) – same or theme related questions as in Entry Quiz</td>
<td>Lead Trainer/Trainers (external)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: (Sorensen, 2013)

• **Level 3 – Application:**

The survey on use of the learned skills, knowledge and attitudes (SKAs) in the municipalities showed that 60% of participants use “frequently” and “very frequently”. A similar, yet stronger, pattern was observed with effectiveness in application, where 7 out of 10 participants are in categories “effective” and “very effective” (70%). About 10% of the surveyed participants still did not have the opportunity to apply SKAs, as their job descriptions did not relate to project preparation activities (they either did not take part in the training based on their job descriptions or they were moved to other job posts after the training). For the application level the sample comprised of a questionnaire sent out to 100 randomly selected PCM participants. The response rate was 54%. Then, two focus groups meetings were held in which 12 randomly selected participants discussed and analysed critical features related to the application level Table 5.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Measure</th>
<th>Method / tools</th>
<th>Data source</th>
<th>Timing</th>
<th>Feedback / QA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applying and submitting successfully a concrete development proposal for funding</td>
<td>Objective criteria based on EU/national standards, e.g. log frame structure, SMART indicators, etc.</td>
<td>Expert written review (1 page) Standardised questionnaire addressing the application level issues (participants)</td>
<td>Civil service Agency</td>
<td>After a proposal has been drafted for financing After 2-3 years</td>
<td>Civil service Agency (MTS II team)</td>
</tr>
<tr>
<td>Learned SKA: Frequency, effectiveness, importance, change, barriers, enablers</td>
<td>Expert (external) Participant (internal)</td>
<td>Civil service Agency</td>
<td>After 2-3 years</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 5: Level 3 - Application**

Source: (Sorensen, 2013)

• **Level 4 – Impact:**

It was obvious from the information provided by respondents that the number of municipal or inter-municipal projects submitted and financed were significantly higher now than before the PCM course was conducted. Out of 54 respondents 42 (80.7%) were involved in project preparations, while 12 (19.3%) were not. The questionnaire respondents were involved in the preparation of project proposals 351 times, meaning an average number of project proposals that each participant contributed to was 6.5 (351/54 respondents). The questionnaire asked for data on the three latest project proposals and based on these data 40% of the latest projects which were financed. The remaining 60% are currently in the process of being evaluated by the funder or they were not approved or submitted at all for various reasons. The total budget for the funded project amounts to 14.8 million KM, or €7.6 million. The impact data would have been difficult to collect from the municipalities’ HR development or finance offices. Therefore, impact data was included in the post-course questionnaire, as it was assumed that

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14 The total number of participants was 289 out of 52 local self-government units.
many of PCM course participants would have better knowledge on the number of project proposals funded in their respective municipalities.

Table 6: Level 4 - Impact

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Measure</th>
<th>Method / tools</th>
<th>Data source</th>
<th>Timing</th>
<th>Feedback / QA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposal awarded and financed</td>
<td>Ratio of no of calls from EU/national vs. proposals submitted vs. no of proposals awarded</td>
<td>Proposal statistics</td>
<td>Participants (internal) / Central and municipal records</td>
<td>When a proposal has been awarded</td>
<td>National partner institutions</td>
</tr>
</tbody>
</table>

Source: (Sorensen, 2013)

- Level 5 – RoI:

Monetary benefits were calculated based on respondents’ perceptions in relation to two criteria: (a) “time saved”, in producing project proposals; and (b) ‘improved effect on project implementation”. With regard to “improved time savings”, including less re-work and duplication, the percentage provided by the respondents was converted into “hours saved” and the hourly salary of a mid-level public servant in the BiH local self-government system used as a unit of value (=4,37 EUR/hour). With regard to the monetary benefits of the “improved effect of the implementation of municipal or inter-municipal projects”, the estimate of questionnaire respondents having experience from 5 or more projects (€7,57 million) was taken into consideration (Table 7).

Based on the questionnaire and the focus groups meetings, the following additional non-monetary benefits were discovered and included: institutional strengthening, improved investment planning and skills and capacity enhancements, as well as team work and job satisfaction. Municipal records were not accessible for estimating monetary benefits of the PCM course. For this level, the questionnaire asked for specific estimates of benefits that the municipalities gained from the employees’ participation in the PCM course. Questions focused on possible benefits related to time, re-work, duplication of work, team work and job satisfaction.

Table 7: Level 5 - RoI

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Measure</th>
<th>Method / tools</th>
<th>Data source</th>
<th>Timing</th>
<th>Feedback / QA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on Investment (RoI)</td>
<td>RoI being positive</td>
<td>Participants’ estimates</td>
<td>Participants</td>
<td>Managers</td>
<td>Civil service Agency</td>
</tr>
</tbody>
</table>

Source: (Sorensen, 2013)

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15 Units of improvements were identified in the evaluation plan.
The PCM expenditures have come to a total of USD 280.158 including development, implementation and evaluation costs as well as participants’ salary costs. The total development costs were USD 17.436 for the implementation of the 17 courses, including trainers’ salary, training venue, per diem/food, transport, accommodation and CSA staff. For training development, planning, organization, evaluation and monitoring were USD 179.722. Salary costs of all participants for six days amounted to 82.950 USD. The total improved time saving came to USD 111.987 and improved effect on project implementation came to 1.006.406 USD. The return on investment for the PCM course was calculated using the benefits and costs equation. The key components are the benefit/cost ratio (BCR) and the RoI. The monetary benefit for the “time saved” amounted to USD 111.987,06 and for the “project implementation effect” the amount was USD 1.006.406, a grand total of USD 1.118.393,06.

RoI CALCULATION:

\[
\text{BCR (Benefit Cost Ratio)} = \frac{\text{Total course benefits}}{\text{Total course costs}}
\]

\[
\text{BCR} = \frac{1.118.393,00}{280.158} = 3,99
\]

\[
\text{ROI} = \frac{(\text{Course benefit} - \text{Course costs})}{\text{Course costs}} \times 100\%
\]

\[
\text{ROI} = \frac{(1.118.393,00 - 280.158)}{280.158} \times 100\% = 299,2\%
\]

The RoI was calculated to 299%, meaning that, for those two criteria, for every 1 USD that has been spent on the PCM courses, 1 USD was returned and almost 3 USD were provided as an added value.

**Table 8: RoI evaluation analysis**

<table>
<thead>
<tr>
<th>Methods to isolate training</th>
<th>Municipal records, participants’ estimates (i) workshop, (ii) focus groups, (iii) Questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methods to convert data</td>
<td>Average salary records of mid-level / senior municipal employee; Total budgets of financed projects; Participants’ estimations of improvement</td>
</tr>
<tr>
<td>Cost categories</td>
<td>Development costs, delivery costs per course (training materials, Instructor’s and participants’ salaries, travel, per diem, venue rental, accommodation, etc), experts’ assessment Course coordination Evaluation costs (observers, QA management &amp; analysis)</td>
</tr>
<tr>
<td>Non-monetary benefits</td>
<td>Institutional strengthening; improved investment planning; skills and capacity enhancements; improved awareness on calls for projects</td>
</tr>
<tr>
<td>Other influence</td>
<td>None identified</td>
</tr>
<tr>
<td>Communication targets</td>
<td>Mayors &amp; Dept. heads Peers Partners in development</td>
</tr>
</tbody>
</table>

*Source: (Sorensen, 2013)*
IV. Conclusions

The RoI methodology is a new way to evaluate the impact of training and projects in BiH. The methodology was a useful framework and guide for further improvement of training programmes in BiH. The piloting showed reliable results on one side, however on the other, it is considered as expensive tool and relevant only for selected training programmes.

The Pros

It is worth mentioning that capacity of RoI implementation is enhanced in the training system in BiH and knowledge in the RoI is shared among all interested parties, which represents an important enabler in giving high quality results of training programmes. Measuring effects of the training is one of the most convincing ways to earn the respect and support of the government institutions and senior management. Because a variety of feedback data are collected during the programme, the comprehensive analysis provides data to drive changes and make adjustments during training programme implementation.

With the development of training programmes focusing on results, CSA is now in a position to alter or eliminate inefficient training programmes and the RoI process will prompt changes or modifications. In the piloted case in BiH, the overall assessment showed a RoI of 299%, which means that the RoI for the two units/estimates of improvement of “saved time” and “improved project implementation” effect positive. More concretely, it means that for each 1 USD spent on PCM courses, value worth almost 3 USD has been produced. In addition, several non-financial results were identified such as interdisciplinary team work, increase in job satisfaction, institutional strengthening, building of employees’ capacities, etc.

After the first RoI evaluation process was completed, the CSA continued the process on selected training programmes such as “Train the trainer” and “Strategic planning and reporting for the Government”. The internal CSA capacities developed evaluation plans and followed the chain of impact at each of the five levels. The most challenging issue in the process was the identification of hard and soft data, as well as identification of objectives for each level of the evaluation process.

The Cons

The RoI evaluation process adds additional costs, as well as extra contributions by all interested parties. That is why many training institutions in BiH consider it costly, complicated and difficult to handle. This barrier often stops many training institutions to use it frequently. Some HR units in BiH are not willing to coordinate with CSA and to implement this process because the implementation procedure has not been yet regulated by by-laws. That is why it is perceived much more as an individual performance evaluation tool (only the willingness of CSA) instead of a process improvement tool, for the whole of the civil service system in BiH.

As with any change, it is also, in some cases, resisted by training managers and heads of HR departments as well as by other stakeholders. Some of the resistance is based on realistic barriers (time for the implementation of the process, and associated costs), while part of it is based on misunderstandings and lack of fruitful communication among all interested parties.

The existing training impact assessment mechanism is solid and several elements of the first three steps are easily integrated. The last step, the RoI, is complicated for the civil service system and might be used only for selected training programmes. The accuracy and data collection, analysis and handling with data is critical for a successful implementation of the
RoI methodology. Developing evaluation plans at the time of needs assessment can greatly influence the outcome of the trainings.

References
Armstrong, Michael. 2011. Armstrong’s Handbook of Strategic Human Resources Management, United Kingdom
Hoof, M. Paul, 2015. Municipality Training System Project –Final Project Evaluation, Sarajevo
Phillips, J., Stone D. 2000. How to measure training results, A practical guide to tracking the six key indicators, New York
Sorensen, E., Svend. 2013. Impact assessment methodology, the RoI Evaluation System, Sarajevo
Virant, Gregor, 2015. Human Resource Management in the Civil Service in Bosnia and Herzegovina, Sarajevo