

Collaborative Approach for Performance Improvement of Non-added Value Activities in SMEs

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Abstract: The continuous improvement projects in SMEs are more difficult to develop than in larger companies mainly due to lack of resources. Yet they usually find ways to improve their performance. This is not the case for the non-added value activities. Its “invisibility” and strict relation with SME cultural behaviour make it difficult to develop internal action and collaborative projects to improve its performance.

The proposed collaborative approach aims to establish joint projects involving several players to deal and reduce the impact of that type of activities in SMEs. Each player has a specific role and all of them benefit from the collaboration: pool of SMEs, Sectorial Centre, Consultancy Company and R&D Institution. The approach steps and its application in the Setup process are presented. The type of participation of each player is described as well as its benefits. The final projects outputs are identified and discussed.

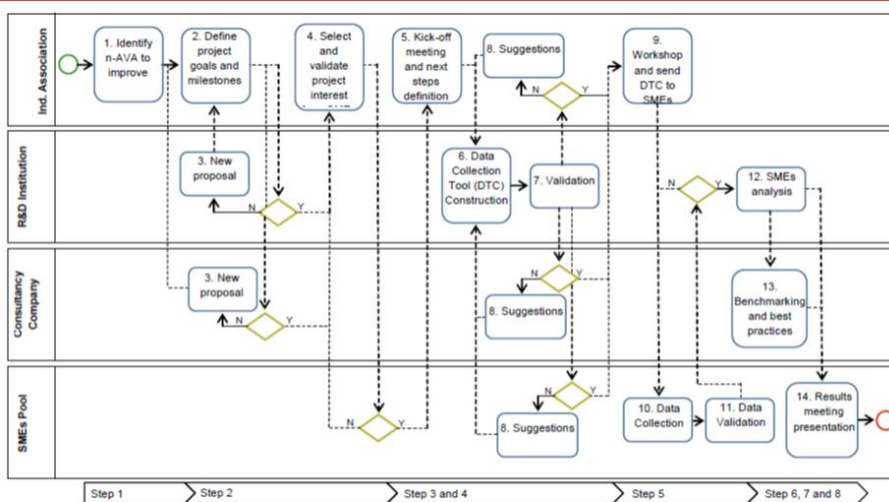


Figure 1 – Schematic view of the collaborative approach.

Collaborative approach steps:

- **Step 1:** Identification of the non-added value activity
- **Step 2:** The pool of SME and other project partners
- **Step 3:** Identification of the process phases
- **Step 4:** Identification of the process type of operations
- **Step 5:** Data acquisition in SMEs and by the SMEs
- **Step 6:** Individual SMEs performance analysis and Good Practices
- **Step 7:** Performance indicators for process monitoring
- **Step 8:** Benchmarking and Benchmarking web-based tool

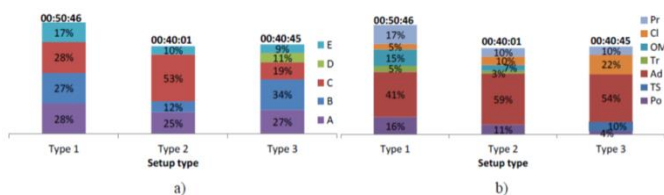


Figure 2: Process (n-AVA) phases and Process operations type for 3 types of Setup measured in a SME.

#	Setup phases	Description
A	Finished part removing	Removing of finished part or special tool from the machine
B	Next part placing	Placing of next part or special tool on the machine
C	Part holding	Fix the next part or special tool to the machine
D	Tool Changing	Replace the processing tool (the item that performs the operation)
E	Tuning	Setting programmes, processing parameters adjusting and tests

Table 1 – Phases of the Setup process with the sequential operations required for the setup.

#	Setup operations	Description
Po	Positioning	Tasks involving parts and tools placing and removing (it includes part movements close to the workstation)
TS	Tool Shifting	Tasks required to replace or prepare the processing tool
Ad	Adjusting	Tasks involving parts or special tools aligning and attaching
Tr	Transport	Tasks involving tools and materials transportation
OM	Operator Movement	Operator movements not involving transport (free hands)
Cl	Cleaning	Tasks involving part/special tool and/or machine cleaning
Pr	Programming	Tasks involving program loading and parameters setting
FT	Final Tests	Tasks involving fine tuning of process parameters by parts producing

Table 2 – Setup operations type description.



Figure 3: Benchmarking line for 4 SMEs.