

Implement Governance & Recruit People	System Elements	Activities	E	M	C	S	Drawings	Comments	Status
SS0214: Review and sign off the Mahola Governance Plan (including the business model, Processes, Roles and Policies) and the Mahola Building Instruction (including the EMC&S list).	Gov	<ul style="list-style-type: none"> - Conduct Design Verification. - Baseline Mahola Governance Plan and Mahola Building Instruction. - Translate both documents into French. - Print, soft-bind and sign off both documents (UK). - Present both documents to the Steering Committee (Cameroon). - Sign-off both documents with any required changes marked. - Implement any changes in the baseline. 	-	-	-	-	n/a	For the presentation to the Steering Committee an up-to-date overview of the project will be included for information.	
SS0215: Identify the needed actors for the implementation and integration of the Mahola system (including responsible persons for each of the Implementation & Integration Steps, and the different policy officers).	Gov		-	-	-	-	n/a		
SS0216: Identify the needed positions (employees, volunteers and bursary recipients) of the future, operational Mahola system.	Gov		-	-	-	-	n/a		
SS0217: Recruit suitable candidates for each of the identified positions when needed.	Gov	<ul style="list-style-type: none"> - Define the selection process. - Prepare a job description and contract for each position, including the start date and remuneration. - Advertise the positions. - Conduct the selection process transparently. - Sign the contracts with the selected candidates. 	-	-	-	-	n/a	For bursaries, expected presence and activities during the holiday periods and a mandatory period of service following the studies have to be contractually agreed.	
Procure EMC&S	System Elements	Activities	E	M	C	S	Drawings	Comments	Status
SS0202: Procure or make (as appropriate) all needed equipment, materials, components & supplies for the construction work; and ensure the protected storage of valuable items.	HC	<ul style="list-style-type: none"> - Check that all EMC&S items are identified and it has been decided how they will be provided. - Cost and schedule each item. - Identify which EMC&S have to be stored and how they have to be protected. - Make available the required storage capacity (including for valuable items). - Procure* or make all identified EMC&S items. - Check the quality of all items**. - Store all items safely and securely as required. 	x	x	x	x	n/a	*In case of buying items, go through the following steps: Identify candidate suppliers, request quotes, decide on supplier and order items. ** In terms of quantity, size, properties, health and safety aspects.	
SS0209: Procure bursary contracts for each identified recipient, as needed.	Gov	<ul style="list-style-type: none"> - Check that all bursaries are identified and it has been decided how they will be provided. - Cost and schedule each bursary. - Procure bursary (sign contract). 	12 13	-	-	-	n/a	This is based on the recruitment of a suitable candidate for each bursary.	
SS0210: Procure the Ambulance vehicle as specified.	AM	<ul style="list-style-type: none"> - Cost and schedule the ambulance. - Procure* the ambulance vehicle. - Check the quality** of the ambulance vehicle. 	3	-	-	-	n/a	*Go through the following steps: Identify candidate suppliers, request quotes, decide on supplier and order the vehicle. ** Against the specification.	
SS0211: Procure the necessary equipment and supplies for the First Aid Network, the Ambulance and the health centre; and ensure the protected storage of valuable items.	FA, AM, HC	<ul style="list-style-type: none"> - Check that all EMC&S items are identified and it has been decided how they will be provided. - Cost and schedule each item. - Identify which EMC&S items have to be stored and how they have to be protected. - Make available the required storage capacity (including for valuable items). - Procure* or make all identified EMC&S items. - Check the quality of all items**. - Store all items safely and securely as required. 	x	-	-	x	n/a	*In case of buying items, go through the following steps: Identify candidate suppliers, request quotes, decide on supplier and order items. ** In terms of quantity, size, properties, health and safety aspects.	
SS0212: Procure the ICT Solution as specified; and ensure the protected storage.	ICT	<ul style="list-style-type: none"> - Check that all EMC&S items are identified and it has been decided how they will be provided. - Cost and schedule each item. - Identify which EMC&S items have to be stored and how they have to be protected. - Make available the required storage capacity (including for valuable items). - Procure* all identified EMC&S items. - Check the quality of all items**. - Store all items safely and securely as required. 	89	-	-	-	n/a	*In case of buying items, go through the following steps: Identify candidate suppliers, request quotes, decide on supplier and order items. **Against the specification.	

SS0213: Procure the equipment, components and supplies for the implementation of the Water & Electricity Distribution Network; and ensure the protected storage of valuable items.	WE	<ul style="list-style-type: none"> - Check that all EMC&S items are identified and it has been decided how they will be provided. - Cost and schedule each item. - Identify which EMC&S items have to be stored and how they have to be protected. - Make available the required storage capacity (including for valuable items). - Procure* all identified EMC&S. - Check the quality of all items**. - Store all items safely and securely as required. 	x	-	x	x	n/a	*In case of buying items, go through the following steps: Identify candidate suppliers, request quotes, decide on supplier and order items. ** In terms of quantity, size, properties, health and safety aspects.	
Accompany Bursaries	<i>System Elements</i>	<i>Activities</i>	<i>E</i>	<i>M</i>	<i>C</i>	<i>S</i>	<i>Drawings</i>	<i>Comments</i>	<i>Status</i>
SS0218: Accompany each bursary.	BU	<ul style="list-style-type: none"> - Prepare each selected bursary recipient prior to their studies. - Liaise with and support each student during their studies. - Organise activities within the Mahola system for each student during lecture-free periods. 	12 13	-	-	-	n/a		
Implement Health Centre	<i>System Elements</i>	<i>Activities</i>	<i>E</i>	<i>M</i>	<i>C</i>	<i>S</i>	<i>Drawings</i>	<i>Comments</i>	<i>Status</i>
SS0219: Prepare the site for construction.	HC	<ul style="list-style-type: none"> - Identify and secure a suitable well in the vicinity of the site (existing or new) that can be used both for the construction and subsequently for the on-going water provision (with a capacity > 10m³ per day). - Measure the terrain. - Mark the location and outer dimensions of the modular building. - Inspect the areas marked for the access of the ambulance to and from the modular building, as well as the patient off-loading area. - Mark the locations and outer dimensions of both housings. - Mark the locations of the pathways that will link the modular building to the paths and to both housings. - Mark the location and outer dimensions of both cess pools. - Mark the locations of the water and sewage pipes, as well as the electric cables. - Consider and decide on options to evacuate ground water*. - Mark the location of the centre line of green ditches to be dug. - Measure the terrain as marked and verify that it is aligned with the design. - Cut the marked areas plus 3 meters from the outer markings free from vegetation (apart from grass). - Dig out any significant roots of trees or bushes. - Dig out any earth** as needed to complete the preparation of the drives, paths and green ditches. - Use some of the earth for levelling the surrounding surfaces as required. - Conduct Product Verification. 	x	-	-	x	TD1	* To evacuate ground water from around the modular building, the housings, the drives and the pathways. ** Transport the earth to the area where the concrete and bricks will be produced.	

SS0220: Implement the foundations.	HC	<ul style="list-style-type: none"> - Dig out the earth for the foundations of the modular building (20cm deep)*. - Dig out the earth for the foundations of both housings (20cm deep)*. - Dig out the earth for the water and sewage pipes (50cm deep)**. - Dig out the earth for the electric cables (50cm deep)**. - Place bricks to support the metal reinforcement rods and mesh i.a.w. with the design. - Place the metal reinforcement rods and mesh on those bricks i.a.w. the design. - Prepare the production of concrete. - Verify the correct placement of the metal reinforcement rods and mesh. - Produce the concrete for the foundations***. - Pour the concrete for the foundations***. - Measure the poured surface and level as needed***. - Mark and protect the wet concrete foundations by means of wooden poles and warning band. - Let the foundations dry as needed. 	x	x	x	x	TD2	<p>Pour the foundation for the WDRH first to practice and mark any foundation holes with marking band if left unattended to prevent accidents.</p> <p>* Leave some of the earth directly next to the holes and compact it. Transport the rest of the earth to the area where the concrete and bricks will be produced. Compact all surfaces against which the concrete mix will later be poured including the edges of the holes.</p> <p>** Pile up the earth next to the location of the pipes and cables.</p> <p>*** These activities are carried out in parallel, either continually or in stages, while water may have to be sprinkled onto the wet foundation to keep it from locally drying to fast.</p>
SS0221: Implement the cess pools.	HC	<ul style="list-style-type: none"> - Dig out the earth for both cess pools (3m deep)*. - Implant 4 poles of wood around each cess pool location. - Connect these poles by warning plastic band. - Build the inside wall of each cess pool i.a.w. the design (including the steps for grip support on one side)**. - Place the water and sewage pipes as designed. - Ensure the necessary ratio of descent of the sewage pipes. - Protect the inlet of the water and sewage pipes by means of a plastic foil/cap. - Produce a wooden lid for each cess pool. - Remove the protection of the inlets of the sewage pipes. - Conduct a functional test of the sewage pipes***. - Cover the open side of each sewage pipe by means of a plastic foil/cap. - Place one lid (including the maintenance pipe) on top of each of the two cess pool wall structures (at a depth of about 1m). - Cover each lid with plastic foil. - Fill the hole on top of each lid with earth until the surface is level again. 	x	x	x	x	TD3	<p>* Transport 2/3 of the earth to the area where the concrete and bricks will be produced, and pile up 1/3 of the earth in the vicinity of each cess pool.</p> <p>** Using the first sets of bricks locally produced, or bricks of lesser quality.</p> <p>*** Run some water through each sewage pipe and observe that the water flows into the corresponding cess pool.</p>
SS0222: Implement the brick walls.	HC	<ul style="list-style-type: none"> - Measure and mark* the positions of the brick walls of the modular building and both housings i.a.w. with the design. - Place the bricks corresponding to the walls of each room into the centre of each room. - Produce the cement mix**. - Build the walls i.a.w. the design**. - Conduct Product Verification. 	x	x	x	x	TD4	<p>Produce the brick walls of the WDRH first for practice.</p> <p>* Using chalk.</p> <p>** These activities are carried out in parallel.</p>
SS0223: Implement the roof support structures.	HC	<ul style="list-style-type: none"> - Prepare the pre-assembly of parts of the roof support structures. - Pre-assemble parts of the roof support structures. - Install the roof support structures. - Conduct Product Verification. 	x	x	x	x	TD5	
SS0224: Implement the roof.	HC	<ul style="list-style-type: none"> - Prepare the installation of the tin roof. - Install the tin roof onto the wooden roof support structure. - Prepare the installation of the rain gutter and rain water collector tank. - Install rain gutter. - Install rain water collector tank. - Conduct Product Verification*. 	x	x	x	x	TD6	<p>Ensure spillages be avoided.</p> <p>*Including functional test. Install in parallel a segment of roof and then a segment of solar panels to ease access, etc.</p>
SS0225: Implement the solar panels.	HC	<ul style="list-style-type: none"> - Prepare the installation of the solar panels (on the roof of the modular building). - Install the solar panels on the roof. - Prepare the connection of the solar panels to the electricity network of the health centre. - Conduct Product Verification. 	x	-	x	x	TD7	<p>Install in parallel a segment of roof and then a segment of solar panels to ease access, etc.</p>

SS0226: Implement the tiles.	HC	- Prepare tiling. - Tile the floor of the modular building. - Tile the walls of the wet room. - Apply grouting between the tiles. - Clean the tiled surfaces.	x	x	x	x	TD8		
SS0227: Implement electricity.	HC	- Install lights, sockets, fuse boxes, connectors, solar energy control unit, transformer, solar energy batteries and electrical cables. - Connect all lights and sockets, fuse boxes, connectors, solar energy control unit, solar energy batteries and solar panels. - Conduct Product Verification.	x	x	x	x	TD9		
SS0228: Implement water and sewage.	HC	- Install and connect sinks, showers, toilets, water and sewage piping, and rain water collector. - Conduct Product Verification.	x	x	x	x	TD10	Ensure watertight plumbing to prevent loss of water and open spillages.	
SS0229: Implement doors and nets.	HC	- Prepare doors. - Prepare door nets. - Prepare other nets*. - Install doors. - Install door nets. - Install other nets*. - Conduct Product Verification.	x	x	x	x	TD11	This covers all doors and nets of the modular building and the CUH. *Including for the closure of the roof support structure of the MB and the airing slits of the CUH.	
SS0230: Complete the modular building.	HC	- Equip and supply the MB, store spare materials and components safely and securely. - Conduct Product Verification.	x	x	x	x	TD12	Up to the level of the modular building.	
SS0231: Complete the combined utility housing.	HC	- Assemble and install drip covers, shelves and noise insulation covers*. - Equip and supply the CUH, store spare materials and components safely and securely. - Conduct Product Verification.	x	x	x	x	TD13	Up to the level of the combined utility housing. *On the inside of the door and on the noise insulation cover for the back-up generator.	
SS0232: Complete the waste and recycling housing.	HC	- Assemble and install the lids of the WD&RH. - Place set of bins into the housing. - Conduct Product Verification.	77	-	-	-	TD14	Up to the level of the waste and recycling housing.	
Implement Ambulance	<i>System Elements</i>	<i>Activities</i>	<i>E</i>	<i>M</i>	<i>C</i>	<i>S</i>	<i>Drawings</i>	<i>Comments</i>	<i>Status</i>
SS0233: Complete the ambulance.	AM	- Equip and supply the ambulance. - Conduct trials. - Conduct Product Verification (DO0206). - Commission the ambulance.	3	-	-	x	n/a	This steps follows the procurement of the ambulance vehicle (DO0125) as specified in the System Requirements.	
Implement ICT Solution	<i>System Elements</i>	<i>Activities</i>	<i>E</i>	<i>M</i>	<i>C</i>	<i>S</i>	<i>Drawings</i>	<i>Comments</i>	<i>Status</i>
SS0234: Complete the ICT Solution.	ICT	- Prepare description of how processes and their roles, as well as patients can best be supported by the ICT Solution. - Conduct trials. - Conduct Product Verification (DO0162 and DO0163). - Commission the ICT Solution.	89	-	-	-	n/a	This steps follows the procurement of the ICT Solution (DO0162 and DO0163) as specified in the System Requirements.	
Integrate Mahola System	<i>System Elements</i>	<i>Activities</i>	<i>E</i>	<i>M</i>	<i>C</i>	<i>S</i>	<i>Drawings</i>	<i>Comments</i>	<i>Status</i>
SS0236: Prepare and plan the integration of the Mahola system.	All	- Plan and schedule integration activities. - Prepare initial training modules and material.	-	-	-	x	n/a		
SS0237: Conduct initial training sessions for all employees of the Mahola system.	All	- Prepare initial training sessions. - Conduct initial training sessions. - Collect feedback. - Hand out personal equipment and supplies i.a.w. each employee's role (against signature). - Update training materials based on feedback.	x	-	-	x	n/a	Training sessions on the Mahola system; Governance aspects, including processes, roles and Policies; as well as First Aid. The policies will be presented by each nominated officer, including planned and on-going implementations.	

SS0238: Prepare all Processes.	All	<ul style="list-style-type: none"> - Prepare all processes (by each relevant Process Owner with the help of the Process Actors), including the use of the ICT Solution, communications equipment, other equipment and supplies. - Walk through each process (led by the relevant Process Owner with the help of the Process Actors, in the presence of all employees). - Refine the process descriptions based on feedback (by the relevant Process Owners). - Conduct integrated 'sandpit' exercises across multiple processes. 	89	-	-	-	n/a	With the involvement of all employees of the Mahola system.	
SS0239: Train all First Aiders.	FA	<ul style="list-style-type: none"> - Prepare First Aider training sessions. - Conduct First Aider training sessions (by employees of the Mahola system). - Collect feedback, give final instructions, hand out equipment and supplies, and register as operational First Aider (signing the receipt of the equipment and supplies). 	x	-	-	x	n/a	All First Aiders with the involvement of all employees. The training sessions cover First Aid and relevant processes for First Aiders; as well as awareness on the policies of the Mahola system.	
SS0240: Conduct integrated exercises (for the Mahola system).	All	<ul style="list-style-type: none"> - Prepare a series of integrated exercises across the entire Mahola system (by a dedicated separate team supported by a group of First Aiders who will play victims during the exercises or serve as observers). - Conduct exercises (preparation, briefing, exercise, feedback and analysis). - Restore operational condition of the Mahola system. 	x	-	-	x	n/a	These exercises have to be documented by observers, including feedback from all participants, as well as photos and videos. For each exercise, a report is to be produced.	
SS0241: Conduct final validation of the Mahola system (Product Validation) against the user needs.	All	<ul style="list-style-type: none"> - Check completeness of Product Verification, identify open items and make related decisions. - Conduct Product Validation against user needs, identify open items and make related decisions. - Produce Final Validation Report (to be signed off by the Steering Committee). 	x	-	-	x	n/a	The final validation can be started following the integrated exercises, but can only be completed after the Mahola system has been in operation for some weeks.	
Implement Water & Electricity Distribution Network	<i>System Elements</i>	<i>Activities</i>	<i>E</i>	<i>M</i>	<i>C</i>	<i>S</i>	<i>Drawings</i>	<i>Comments</i>	<i>Status</i>
SS0235: Complete the Water & Electricity Distribution Network.	WE	<ul style="list-style-type: none"> - Prepare the installation of the joint water & Electricity Distribution Network. - Install the Network. - Connect the Network. - Conduct Product Verification against the system Requirements. 	x	x	x	x	n/a	Ensure watertight plumbing to prevent loss of water and open spillages.	