

Meeting Description	Fourth Project Meeting in Kuopio (Finland)
Meeting hosted by	Savon ammattii - ja aikuisopisto

Date / Time / Place	20 09 12 at 10:00
Name of Workline	Workline A - Locomotive
Name of Workgroup	Group No. 3

Representative workgroup member	[DK] Flemming Gronborg
Co-representative workgroup member	[IT] Michele Agati
Co-representative workgroup member	[DK] Steven Iles Buhelt

Further workgroup members	[LU] Franz Sadler, Mil May , Paul Faber, Jean-Jacques Zeimes
	[AT FUL] Jakob Brambock, Andreas Wanker, Gerhard Jank, Harald Falschlunger
	[IT] Blasi Nicolo, Pennato Luca, Artuso Francesca, Biava Romina, Cappelletto Fausto
	[FI] Kari Heiskanen, [HR] Gordana Eric, Tatjana Antic

Minute written by	[LU] Michel Gieres
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Description of work progress: Topics / Tasks / Results / Decisions / Facts of importance	Responsible school(s) or person(s) incl. deadlines
<p>In order to build the locomotive, you need 11 different parts (in various numbers).</p> <p>[DK] Flemming will produce the gearbox plus all the gears (in steel)</p> <p>[IT] Agati wants a locomotive.</p> <p>[FI] Kari Heiskanen does not need a locomotive (they can make it themselves afterwards)</p> <p>Concerning the cost of devices without motor and battery: [IT] Agati says the price varies between 100-150 EUR battery = 30-40 EUR recharge = 30-40 EUR motor = needs to be changed into brushless motor (150 EUR) [IT] can produce one system with motor + recharge, battery + electronical parts for every country.</p> <p>The width and height of coupling / buffers need to be redesigned. The height of the coupling position is known but not where it should be fixed. The buffers are the same as in the first project. The buffers can be produced by [AT FUL].</p>	

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<p>[IT] Agati points out that there should be easy access to replace the batteries in the undercarriage.</p> <p>Also, the weight needs to be increased inside the wagons. With lead perhaps. Also, the outer shell of the locomotive should be fixed to the undercarriage quite easily (with screws). The height of the wheels has to be discussed in relation to the coupling system.</p> <p>40 mm wheels are produced by [DK] Gronborg. The distance between the wheels or the track to the middle of the chassis has to be 44 mm. The motor will be changed to a brushless motor.</p> <p>[IT] will provide drawings for [AT FUL]</p> <p>[AT FUL] can produce a prototype of the outer body for the locomotive with the use of rapid prototyping (2 mm in plastic). They can bring it to the next meeting in [AT STP]. For the windows, there should be no holes but the plastic thickness should be reduced. LEDs should be at the front.</p> <p>A deadline for the final drawings is needed. All the pieces have to ready for the meeting in St Polten.</p> <p>[DK] Gronborg will decide which school will have to produce which pieces.</p> <p>[IT] will be responsible for the locomotive, the electronics and the drawings.</p> <p>[AT FUL] will produce a prototype with rapid prototyping.</p> <p>[SL] will not be able to produce all the parts.</p> <p>[LU] will ask whether stickers (to be put onto the locomotive) can be made in Luxembourg.</p> <p>[IT] needs to provide the drawings around 15 October 2012.</p> <p>[DK] Gronborg will send .ipt and .stp files with the final drawings before 15 October 2012. All the parts have to be produced for the meeting in St. Poelten. When the parts are ready, [DK] Gronborg should be informed by e-mail. He will use a checklist to make sure everything will be ready.</p> <p>[IT] can use STEP files for [AT STP] so they can use them on their machines. The outer body of the locomotive needs to be split in two parts because their machine is not big enough.</p> <p>[IT] wants photos of the production process with rapid sharing (with students of course)</p> <p>Everything will be produced in steel.</p> <p>[FI] can make mould for the lead weight inside the locomotive (to increase weight for better friction).</p> <p>[IT] tested a locomotive with 8 wheels and found out that 8 wheels are actually important.</p> <p>[DK] Buhelt Steven will produce the parts for the coupling system. It is important to get the dimensions from the undercarriage group to decide on the height of the coupling system.</p>	

Meeting Description	Fourth Project Meeting in Kuopio (Finland)
Meeting hosted by	Savon ammattii - ja aikuisopisto

Date / Time / Place	Friday 21/09/12 - 10:00
Name of Workline	Workline A – Locomotive
Name of Workgroup	Locomotive 3

Representative workgroup member	[LU] Jean-Jacques Zeimes
Co-representative workgroup member	[IT] Michele Agati
Co-representative workgroup member	[DK] Flemming Gronborg

Further workgroup members	[HR] Gordana Eric, Tatjana Antic
	[DK] Steven Buhelt
	[AT-FUL] Harald Falschlunger, Gerhard Jank, Bramböck Jakob, Andreas Wanker
	[LU] Mil May

Minute written by	[LU] Michel Gieres
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<p>The wheels of the locomotive should be the same size as those on the wagons.</p> <p>The running smoothness of the Italian wagons should be used as standard.</p> <p>Italy has not redesigned the body of the locomotive.</p> <p>There is not much else to discuss in this particular meeting.</p>	