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| <b>Meeting Description</b> | Second Project Meeting in Lisbon (Portugal) |
| <b>Meeting hosted by</b>   | CENFIM                                      |
| <b>Minute written by</b>   | [FR] PRIME Nicolas                          |

| <b>Date / Place / Time</b>  | <b>Activities / Results / Points of importance</b>  |
|---|---|
| <p><b>Company Visit and Workshop day</b></p> <p><b>WEDNESDAY 07<sup>th</sup> MARCH 2012</b></p> | <p>8:15 Everybody gathered in the hotel lobby to wait for the bus. All the participants are on time and ready to go.</p> <p>8:30 The train family is split in two groups. Two coaches arrive and take the group to two different places :</p> <p>Group 1: OGMA Industria Aeronautica de Portugal, S.A. in Alverca</p> <p>Group 2: CENFIM Nucleo de Torres Vedras</p> <p>After lunch the coaches exchanges their destinations and each partner of the project visited all the places.</p> <p>The different activities achieved in those group are described below:</p> <p style="text-align: center;"><b>OGMA COMPANY</b><br/>Aeronautical maintenance and production company</p> <p>In OGMA we visited a big aeronautical company that is focus on maintenance and construction of aeronautical part and engine.</p> <p>This company works for many different aeronautical companies whether civil or military.</p> <p>Photos were not allowed during the visit.</p> <p>We spent more or less 2 hours and a half in the company and the visit program was the following:</p> <p>1- Quick visit of the metallic part workshop. We saw different production means:</p> <ul style="list-style-type: none"> <li>• CNC multi-axis machining: part in aluminium alloy, steel, titanium... Really interesting aeronautical parts were shown to us there.</li> <li>• Thin metal plates forming: we saw 2 big stamping machines producing structural parts of planes.</li> </ul> <p>2- General Company tour with coaches. We saw the different halls and buildings of OGMA. We also had the chance to see the planes that were maintained at this moment.</p> <p>3- Visit of the composite material workshop. We discovered the way composite material were produced, tested and even repaired in OGMA:</p> <ul style="list-style-type: none"> <li>• Composite material forming tools and different materials used.</li> <li>• Ultra sonic testing machine to see hidden defaults into a composite part</li> </ul> |

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|                     | <ul style="list-style-type: none"> <li>• Controlled atmosphere workshop that is used to put the composite textile in form.</li> <li>• Water jet cutting machine</li> </ul> <p>4- Visit of the “engine” workshop. We saw the large workshop in witch reactors are built, assembled and maintained.</p> <p>High precision lathe and milling CNC machines</p> <p>Dynamic and static rotor balance</p> <p>Engine checking</p> <p style="text-align: center;">LUNCH time</p> <p>During our way from one site to the other (OGMA and CENFIM) we stopped in a very modern part of Lisbon to have lunch. This site was built for the Universal Exhibition in 1998. It was the occasion to discover the great architecture of this part of the city with wonderful buildings and artist’s realizations.</p> <p style="text-align: center;">CENFIM<br/>Centre of instruction</p> <p>The school is located in Torrès Vedras that is a city not far from Lisbon (30 min by coche)</p> <p>We spend 2 hours and a half in the school and we saw:</p> <p>1- A general presentation of the school that consists in a 10 minute video. We discovered the different technical topics the school provides.</p> <p>2- We had a short visit of the different workshop of the school: electric, mechanic... CENFIM propose a large range of technical trainings in modern and functional workshops.</p> <p>3- We took part of a Heidenhain workshop on programming. Two groups were created and each of them was supported by a Heidenhain member. This was the chance for students to discover the basics of programming and for teacher to discover or improve their skills with this tool.</p> <p>18:00 We were back at the hotel after the visits.</p> |