EN-MME Activities
(20 min)

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### MME Design Office workload

<table>
<thead>
<tr>
<th>Number of jobs</th>
<th>Date fin</th>
<th>Estimated workload (h)</th>
<th>Work in Progress (h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
<td>≤ 2015</td>
<td>16 800</td>
<td>5 100</td>
</tr>
<tr>
<td>31</td>
<td>S1 2016</td>
<td>9 100</td>
<td>2 000</td>
</tr>
<tr>
<td>100</td>
<td>S2 2016</td>
<td>66 400</td>
<td>15 200</td>
</tr>
<tr>
<td>11</td>
<td>S1 2017</td>
<td>7 100</td>
<td>3 300</td>
</tr>
<tr>
<td>13</td>
<td>S2 2017</td>
<td>15 000</td>
<td>10 300</td>
</tr>
<tr>
<td>1</td>
<td>≥ 2018</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>∑ 194</strong></td>
<td></td>
<td><strong>∑ 114 500</strong></td>
<td><strong>∑ 36 000</strong></td>
</tr>
</tbody>
</table>

Source: JMT, situation 11/10/2016

cf LS2 Days 2015  **∑ 169**  **∑ 88 200**  **∑ 30 400**
MME Design Office issues

- Workload: increasing (again... and trend for many years)
- Capacity
  - Increased (again…) from 44 to 50 MME Designers on-site (15 staff, 33 Industrial Support, 2 Temp)
  - **This is maximum capacity that we will not exceed** (re. staff/non-staff ratio of 1:2) in order to allow follow-up and control (cf other Design Offices 1:1)
  - ~72 000 job hours / year in 2016 (~76 000 h planned for 2017)
  - Missing resources !!! support request to recruit additional **staff designers** (note: 1 staff designer generates ~ 1 MCHF spending)
- Hence a bottleneck and an existing Work in Progress (WIP) workload of ~6 months
- ~ 5% capacity will be absorbed by CAD2020 (CDD/Smarteam synchronization and cleanup of data) either supported centrally or by Users/Projects
MME Fabrication issues

- **Workload capacity**
  - Known bottlenecks:
    - Electron beam welding for long components
    - Milling for large components
    - Vacuum brazing
    - Job preparation & subcontracting

- **Raw materials availability:**
  - 316 LN / 304 L vacuum use, copper
  - Store items (sheets, bars, flanges) and special forgings

- Also an existing Work in Progress (WIP) workload of ~6 months
Recommendations

- **Design & fabrication requests**
  - Think ahead in time:
    - consider one Semester (or more) for new MME design requests
    - Consider a 2nd Semester (or more) for MME fabrication requests
  - Include in PLAN
  - In launching a design job do not assume that MME fabrication automatically follows
  - Integration = ACE and Design = MME
  - In following-up an MME design & fabrication job, balance the necessary time for both activities
    - When design is 80% ready start fabrication contacts (too early = ignored, too late = wasted time …)
    - Special supplies can take several months (3 to 12 months), e.g. special raw materials, forgings, bellows, ceramics
PLAN for MME

- MME uses JMT to manage its workload: PLAN and JMT are not synchronised
- Users can help:
  - Consistency between PLAN and JMT in Username and title
  - Link to JMT Job if existing
- Be clear with “request-by date”
  - Specify date for “job finished by MME” (not installation date)
- Be clear with “Deliverables” for Design Office:
  - If fabrication will be “internal MME” or “Sub-contracting MME”, then “job finished” = fabrication drawings ready (include time to iterate with Workshop)
  - If fabrication is “responsibility of Users”, then “job finished” = Tender drawings

➤ User with Design Office to discuss fabrication strategy early

- Avoid “responsibility of User” becoming “MME subcontracting”.

Project/Job Priorities

- **Play this card early:**
  - Better to discuss early at the Design stage (working back from Installation date minus semester(s) fabrication time)

- **Message for Group/Project Leaders:**
  - Do not sign a JMT job request unless the indicated dates satisfy the “semester rule”
  - Do not assume a PLAN request is enough and the end of the story: ask “what is the JMT job number?”
NDT radiography

- By its nature, activity outside normal working hours
- Performed by Contractor (Dekra, new contract S171) with MME support ensured on a “best effort” basis:
  - Assist with access difficulties
  - RP issues
  - Urgent technical issues (exceptionally)
- “Best effort” becoming too much, but “piquet” not justified
- Ongoing discussion to introduce (small) changes to make better use of existing piquets (CCC, CSA, Fire Brigade/RP)
The only general purpose RP workshop
But need GS (→SMB)-consolidation support to finish renovation in 2017.
Thank-you for your attention