ANNEX 1 - Pricebook for DTU Nanolab

Effective: January 1\textsuperscript{st} - 2019

Main changes compared to last year’s pricebook

- New name for DTU Danchip/CEN: DTU Nanolab
- New commercial prices for Category A and B tools and assistance.
- New prices for materials.
- New category P for sample prep tools for characterization
- Computers available at DTU Nanolab
# Table of Contents

1 Table of Contents ............................................................................................................................ 2
2 General information ......................................................................................................................... 3
3 Specific materials priced at cost .................................................................................................... 4
4 Charging categories for tools ........................................................................................................ 5
5 Tool changes .................................................................................................................................. 10
  5.1 Scheduled routine changes....................................................................................................... 10
6 IT possibilities ................................................................................................................................ 11
  6.1 IT solutions for customers at DTU Nanolab ......................................................................... 11
  6.2 Datasources available for DTU Nanolab customers ............................................................ 11
  6.3 Increase of storage capacity limits ......................................................................................... 13
  6.4 Logging on to DTU’s network with DTU Nanolab computers ............................................. 13
  6.5 Computers at the DTU Nanolab facility with access to DTU’s network ............................. 13
  6.6 Logging on to DTU’s network using a wireless connection ................................................ 14
  6.7 Accessing non-DTU datasources from the DTU Nanolab cleanroom ............................... 14
  6.8 VPN access from DTU Nanolab facilities .......................................................................... 14
  6.9 Data transfer using USB storage keys ............................................................................... 14
  6.10 Bringing IT-hardware into DTU Nanolab laboratories ......................................................... 14
  6.11 Non-standard IT solutions ................................................................................................. 14
2 General information

All prices are in Danish kroner without moms. All prices are subject to change.

<table>
<thead>
<tr>
<th>Service from Nanolab</th>
<th>Unit</th>
<th>Commercial activity</th>
<th>External project work, Danish academia</th>
<th>DTU Partner with budget in external projects</th>
<th>Internal DTU projects¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanroom access (below cap)²³⁴</td>
<td>Kr/hour</td>
<td>800</td>
<td>255 + 44% OH</td>
<td>255</td>
<td>0</td>
</tr>
<tr>
<td>Category A tools</td>
<td>Kr/hour</td>
<td>410</td>
<td>125 + 44% OH</td>
<td>125</td>
<td>0</td>
</tr>
<tr>
<td>Category B tools</td>
<td>Kr/hour</td>
<td>650</td>
<td>330 + 44% OH</td>
<td>330</td>
<td>0</td>
</tr>
<tr>
<td>Category C tools</td>
<td>Kr/hour</td>
<td>3600</td>
<td>840 + 44% OH</td>
<td>840</td>
<td>0</td>
</tr>
<tr>
<td>Category D tools</td>
<td>Kr/hour</td>
<td>1200</td>
<td>240 + 44% OH</td>
<td>240</td>
<td>0</td>
</tr>
<tr>
<td>Category E tools</td>
<td>Kr/hour</td>
<td>1700</td>
<td>415 + 44% OH</td>
<td>415</td>
<td>0</td>
</tr>
<tr>
<td>Category P tools</td>
<td>Kr/hour</td>
<td>410</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Nanolab assistance</td>
<td>Kr/hour</td>
<td>1350</td>
<td>330 + 44% OH</td>
<td>330</td>
<td>0</td>
</tr>
<tr>
<td>Area rent</td>
<td>Kr/m²/month</td>
<td>2000</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Materials</td>
<td></td>
<td>At cost + 20%</td>
<td>At cost + 44% OH</td>
<td>At cost</td>
<td>At cost</td>
</tr>
</tbody>
</table>

Note 1, DTU management have decided to support all internal projects. They are paid for as long as the department meets its required external funding for DTU Nanolab activities.

Note 2, the cap is calculated per individual and is at 20 hours per month, usage above the cap is charged as 0 kr/h.

Note 3, a maximum of 6 hours is registered per swipe. If a person forgets to swipe out, no more than 6 hours will be charged.

Note 4, Category F tools are included in the cost of cleanroom access.

Note 5, Research projects where the DTU partner does not hold the budget or other Danish universities using DTU Nanolab are charged with the DTU cost plus overhead of 44%. In particular, cases DTU Nanolab's Director can decide on another rate than 44% after discussion with the principal investigator.

<table>
<thead>
<tr>
<th>Service</th>
<th>Value</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>PackLab Access hourly rate</td>
<td>1</td>
<td>Cleanroom access hour</td>
</tr>
<tr>
<td>Maskorders “Maskorder only”</td>
<td>0.5</td>
<td>DTU Nanolab assistance</td>
</tr>
<tr>
<td>Maskorder “Review”</td>
<td>0.5 + actual time for review</td>
<td>DTU Nanolab assistance</td>
</tr>
<tr>
<td>Introductory package training</td>
<td>1.5</td>
<td>DTU Nanolab assistance</td>
</tr>
<tr>
<td>GreenBelt Course materials</td>
<td>2700 kr</td>
<td>Actual cost of materials</td>
</tr>
<tr>
<td>GreenBelt Course access and supervision</td>
<td>8</td>
<td>DTU Nanolab assistance</td>
</tr>
<tr>
<td>Shelves for work in progress</td>
<td>1 m²</td>
<td>Area rent – note 6, 7</td>
</tr>
<tr>
<td>Floorspace in cleanroom (mix of white and grey space)</td>
<td>1 m²</td>
<td>Area rent – note 7</td>
</tr>
<tr>
<td>Locker</td>
<td>0.25 m²</td>
<td>Area rent – note 7</td>
</tr>
<tr>
<td>Shelf in chemical cabinet in basement</td>
<td>0.5 m²</td>
<td>Area rent – note 7</td>
</tr>
<tr>
<td>Storage shelf in basement</td>
<td>0.25 m²</td>
<td>Area rent – note 7</td>
</tr>
</tbody>
</table>

Note 6, The area of a shelf rack is calculated as the floor area covered by the shelves and 110 cm access in front.

Note 7, Limited amount of this item, subject to availability, minimum period is 6 months.
3 Specific materials priced at cost

<table>
<thead>
<tr>
<th>Precious metal costs</th>
<th>Price</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td>3.2</td>
<td>kr/nm</td>
</tr>
<tr>
<td>Platinum</td>
<td>3.5</td>
<td>kr/nm</td>
</tr>
<tr>
<td>Palladium</td>
<td>1.5</td>
<td>kr/nm</td>
</tr>
</tbody>
</table>

The cost for precious metal is for every nanometer deposited regardless of whether it is on the sample or shutter.

<table>
<thead>
<tr>
<th>Photoresists</th>
<th>Value</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUV42S-6</td>
<td>3.8</td>
<td>kr/g</td>
</tr>
<tr>
<td>KRF M35G</td>
<td>2.4</td>
<td>kr/g</td>
</tr>
<tr>
<td>KRF M230Y</td>
<td>2.5</td>
<td>kr/g</td>
</tr>
</tbody>
</table>

The mass of resist is measured by internal scales in the Gamma tools.

<table>
<thead>
<tr>
<th>ALD sources</th>
<th>Value</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>TMA</td>
<td>3.4</td>
<td>kr/s</td>
</tr>
<tr>
<td>DEZ</td>
<td>14.2</td>
<td>kr/s</td>
</tr>
<tr>
<td>TiCl</td>
<td>1.0</td>
<td>kr/s</td>
</tr>
</tbody>
</table>

The time is measured as the total time open to a given source during a deposition. So for instance if the TMA pulse time in a given run is 0.1 s and a total of 500 pulses are used, that equates to 50 s of TMA source for that run.
# 4 Charging categories for tools

Tools with “Yes” in the column “By booking” are charged based on the booked time; otherwise charging is based on logged time.

<table>
<thead>
<tr>
<th>Tool name</th>
<th>LabManager number</th>
<th>Category</th>
<th>By booking</th>
<th>Equipment group</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFM Icon-PT</td>
<td>8.048</td>
<td>A</td>
<td>No</td>
<td>Dry Etch</td>
</tr>
<tr>
<td>ALD 1</td>
<td>2.021</td>
<td>B</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>ALD 2 (PEALD)</td>
<td>2.023</td>
<td>B</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Aligner: 6inch</td>
<td>1.032</td>
<td>A</td>
<td>No</td>
<td>Lithography</td>
</tr>
<tr>
<td>Aligner: MA6 - 2</td>
<td>1.053</td>
<td>A</td>
<td>No</td>
<td>Lithography</td>
</tr>
<tr>
<td>Aligner: Maskless 01</td>
<td>1.075</td>
<td>A</td>
<td>No</td>
<td>Lithography</td>
</tr>
<tr>
<td>Aluminium Etch</td>
<td>3.041</td>
<td>F</td>
<td>No</td>
<td>Wet Chemistry</td>
</tr>
<tr>
<td>AOE</td>
<td>3.001</td>
<td>B</td>
<td>No</td>
<td>Dry Etch</td>
</tr>
<tr>
<td>ASE</td>
<td>3.002</td>
<td>B</td>
<td>No</td>
<td>Dry Etch</td>
</tr>
<tr>
<td>Ball wire-bonder</td>
<td>7.012</td>
<td>A</td>
<td>No</td>
<td>Customer Support</td>
</tr>
<tr>
<td>BCB Curing Oven</td>
<td>5.015</td>
<td>A</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Black Magic PECVD (Carbon)</td>
<td>2.018</td>
<td>B</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Box washer</td>
<td>4.018</td>
<td>F</td>
<td>No</td>
<td>Facility</td>
</tr>
<tr>
<td>Buffered HF-Predep</td>
<td>4.016</td>
<td>F</td>
<td>No</td>
<td>Wet Chemistry</td>
</tr>
<tr>
<td>Carbon Coater</td>
<td>6.014</td>
<td>P</td>
<td>No</td>
<td>CEN1</td>
</tr>
<tr>
<td>Carrier Clean</td>
<td>4.006</td>
<td>F</td>
<td>No</td>
<td>Facility</td>
</tr>
<tr>
<td>Cleaning bench</td>
<td>4.022</td>
<td>F</td>
<td>No</td>
<td>Wet Chemistry</td>
</tr>
<tr>
<td>Critical Point Dryer</td>
<td>3.025</td>
<td>A</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>CV-profile</td>
<td>8.042</td>
<td>F</td>
<td>No</td>
<td>Customer Support</td>
</tr>
<tr>
<td>Dektak 8</td>
<td>8.019</td>
<td>F</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>DektakXTA</td>
<td>8.040</td>
<td>F</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Developer: 6inch</td>
<td>1.029</td>
<td>A</td>
<td>No</td>
<td>Lithography</td>
</tr>
<tr>
<td>Developer: E-beam</td>
<td>9.008</td>
<td>A</td>
<td>No</td>
<td>Lithography</td>
</tr>
<tr>
<td>Developer: SU8</td>
<td>1.024</td>
<td>F</td>
<td>No</td>
<td>Lithography</td>
</tr>
<tr>
<td>Developer: TMAH Manual</td>
<td>1.049</td>
<td>A</td>
<td>No</td>
<td>Lithography</td>
</tr>
<tr>
<td>Developer: TMAH Stepper</td>
<td>9.007</td>
<td>A</td>
<td>No</td>
<td>Lithography</td>
</tr>
<tr>
<td>Developer: TMAH UV-lithography</td>
<td>1.050</td>
<td>A</td>
<td>No</td>
<td>Lithography</td>
</tr>
<tr>
<td>Diamond CVD 01</td>
<td>2.025</td>
<td>B</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Die-bonder</td>
<td>7.011</td>
<td>A</td>
<td>No</td>
<td>Customer Support</td>
</tr>
<tr>
<td>DRIE-Pegasus</td>
<td>3.027</td>
<td>B</td>
<td>No</td>
<td>Dry Etch</td>
</tr>
<tr>
<td>DRIE-Pegasus 2</td>
<td>3.044</td>
<td>B</td>
<td>No</td>
<td>Dry Etch</td>
</tr>
<tr>
<td>Drop Shape Analyzer</td>
<td>8.023</td>
<td>F</td>
<td>No</td>
<td>Wet Chemistry</td>
</tr>
<tr>
<td>DSC Perkin Elmer</td>
<td>8.050</td>
<td>A</td>
<td>No</td>
<td>Wet Chemistry</td>
</tr>
<tr>
<td>DUV Stepper</td>
<td>9.003</td>
<td>C</td>
<td>No</td>
<td>Lithography</td>
</tr>
<tr>
<td>E-Beam Writer 9500</td>
<td>9.004</td>
<td>C</td>
<td>No</td>
<td>Lithography</td>
</tr>
<tr>
<td>Electroplating-Ni</td>
<td>2.017</td>
<td>A</td>
<td>Yes</td>
<td>Wet Chemistry</td>
</tr>
<tr>
<td>Ellipsometer M-2000V</td>
<td>8.024</td>
<td>F</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Ellipsometer VASE</td>
<td>8.045</td>
<td>F</td>
<td>Yes</td>
<td>Dry Etch</td>
</tr>
<tr>
<td>Filmtek</td>
<td>8.018</td>
<td>F</td>
<td>No</td>
<td>Dry Etch</td>
</tr>
<tr>
<td>Flip-chip bonder</td>
<td>7.015</td>
<td>A</td>
<td>No</td>
<td>Customer Support</td>
</tr>
<tr>
<td>Four Point Probe</td>
<td>8.014</td>
<td>F</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Fume hood 01: Acids/bases</td>
<td>3.031</td>
<td>F</td>
<td>No</td>
<td>Wet Chemistry</td>
</tr>
<tr>
<td>Tool name</td>
<td>LabManager number</td>
<td>Category</td>
<td>By booking</td>
<td>Equipment group</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------</td>
<td>----------</td>
<td>------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Fume hood 02: Acids/bases</td>
<td>3.032</td>
<td>F</td>
<td>No</td>
<td>Wet Chemistry</td>
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<tr>
<td>Fume hood 03: Solvents1</td>
<td>4.026</td>
<td>F</td>
<td>No</td>
<td>Wet Chemistry</td>
</tr>
<tr>
<td>Fume hood 04: Solvents</td>
<td>4.027</td>
<td>F</td>
<td>No</td>
<td>Wet Chemistry</td>
</tr>
<tr>
<td>Fume hood 05: Special purpose &amp; nanoparticles</td>
<td>3.033</td>
<td>F</td>
<td>No</td>
<td>Wet Chemistry</td>
</tr>
<tr>
<td>Fume hood 06: Si etch</td>
<td>3.034</td>
<td>F</td>
<td>No</td>
<td>Wet Chemistry</td>
</tr>
<tr>
<td>Fume hood 07: III-V acids/bases</td>
<td>3.035</td>
<td>F</td>
<td>No</td>
<td>Wet Chemistry</td>
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<tr>
<td>Fume hood 08: III-V solvents</td>
<td>4.028</td>
<td>F</td>
<td>No</td>
<td>Wet Chemistry</td>
</tr>
<tr>
<td>Fume hood 09: UV development</td>
<td>1.067</td>
<td>F</td>
<td>No</td>
<td>Lithography</td>
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<tr>
<td>Fume hood 10: e-beam development</td>
<td>1.068</td>
<td>F</td>
<td>No</td>
<td>Lithography</td>
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<tr>
<td>Fume hood 11: Lithography cleaning</td>
<td>1.074</td>
<td>F</td>
<td>No</td>
<td>Lithography</td>
</tr>
<tr>
<td>Fume Hood(RCA)</td>
<td>3.016</td>
<td>F</td>
<td>No</td>
<td>Facility</td>
</tr>
<tr>
<td>Fume Hood(Service Area)</td>
<td>3.017</td>
<td>F</td>
<td>No</td>
<td>Facility</td>
</tr>
<tr>
<td>Fume hood(Bases)</td>
<td>3.021</td>
<td>F</td>
<td>No</td>
<td>Facility</td>
</tr>
<tr>
<td>Fume hood(Manual Spinner)</td>
<td>3.02</td>
<td>F</td>
<td>No</td>
<td>Facility</td>
</tr>
<tr>
<td>Furnace: Al-Anneal (C4)</td>
<td>5.005</td>
<td>A</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Furnace: Anneal-bond (C3)</td>
<td>5.008</td>
<td>A</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Furnace: Anneal-oxide (C1)</td>
<td>5.006</td>
<td>A</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Furnace: APOX (D1)</td>
<td>5.009</td>
<td>A</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Furnace: Boron Drive-in and Pre-dep (A1)</td>
<td>5.004</td>
<td>A</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Furnace: Gate Oxide (A2)</td>
<td>5.003</td>
<td>A</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Furnace: LPCVD Nitride (4&quot;) (B2)</td>
<td>2.012</td>
<td>B</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Furnace: LPCVD Nitride (6&quot;) (E3)</td>
<td>2.015</td>
<td>B</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Furnace: LPCVD Poly-Si (4&quot;) (B4)</td>
<td>2.010</td>
<td>B</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Furnace: LPCVD Poly-Si (6&quot;) (E2)</td>
<td>2.019</td>
<td>B</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Furnace: LPCVD TEOS (B3)</td>
<td>2.011</td>
<td>B</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Furnace: Multipurpose annealing</td>
<td>5.016</td>
<td>B</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Furnace: Noble</td>
<td>5.012</td>
<td>A</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Furnace: Phosphorus Drive-in (A3)</td>
<td>5.002</td>
<td>A</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Furnace: Phosphorus Predep (A4)</td>
<td>5.001</td>
<td>A</td>
<td>No</td>
<td>Thin Film</td>
</tr>
<tr>
<td>Hardness tester</td>
<td>8.057</td>
<td>F</td>
<td>No</td>
<td>Wet Chemistry</td>
</tr>
<tr>
<td>Helios NanoLAB 600</td>
<td>6.005</td>
<td>E</td>
<td>Yes</td>
<td>CEN1</td>
</tr>
<tr>
<td>HF 5% - RCA</td>
<td>4.015</td>
<td>F</td>
<td>No</td>
<td>Wet Chemistry</td>
</tr>
<tr>
<td>HFS% / BHF-dirty, Fume hood(RCA)</td>
<td>3.026</td>
<td>F</td>
<td>No</td>
<td>Wet Chemistry</td>
</tr>
<tr>
<td>HMDS oven</td>
<td>1.006</td>
<td>F</td>
<td>No</td>
<td>Lithography</td>
</tr>
<tr>
<td>Hotplate 1 (SU8)</td>
<td>1.014</td>
<td>F</td>
<td>No</td>
<td>Lithography</td>
</tr>
<tr>
<td>Hotplate 2 (SU8)</td>
<td>1.015</td>
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5 Tool changes

A vast number of DTU Nanolab’s tools can operate with different substrate sizes, chucks, materials or similarly. The consequences of various changes are described in the following sections. Regarding pricing, all scheduled changes are included in the tool cost but all non-scheduled changes result in a specific charge.

5.1 Scheduled routine changes

Some tools are changed on a weekly basis. To request a change a mail must be send to a “Change responsible”, who is in charge of the change plan for the tool. The change responsible will return by email to acknowledge the request and inform about when the request can be met. When the change has been made to the tool the status log in LabManager is updated.

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<td>10.002</td>
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<td>Tool</td>
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6 IT possibilities

6.1 IT solutions for customers at DTU Nanolab
DTU Nanolab wants to supply customers with IT solutions which are adequate for the vast majority of users. DTU Nanolab wants some simple-to-handle solutions to minimize overhead time and maximize the resources available for taking care of the core services of helping customers fabricate Micro- and Nanostructures. The following paragraphs describe the IT solutions provided by DTU Nanolab in close collaboration with DTU AIT.

6.2 Datasources available for DTU Nanolab customers
DTU Nanolab uses the DTU-basen to handle access to DTU’s network and all the additional facilities supplied by DTU AIT. This means that any user logging on will automatically have access to DTU Inside and the many possibilities offered by that service (particularly the access to CampusNet may be useful for DTU users). For specific DTU Nanolab purposes a set of locations are relevant (further description of each drive can be found in the section indicated):

- M: Personal drive, one M-drive for each person
- U:\DCH\CleanroomDrive: Common cleanroom data area – 1 year old data is deleted on a monthly basis
- O (optional): Group drive

Any DTU Nanolab customer will automatically have a personal M drive for data storage, simply by virtue of having a “DTU-Basen” login.

When the customer is working under a valid contract access is also granted to the U:\DCH\CleanroomDrive area.

It is possible for DTU Nanolab to set up O drives for customers who wish to closely collaborate – this can only be done with prior warning and for extended projects.

6.2.1 Drive backup and strange behavior
The M, O and U drives are all part of AIT backup program which means that full backup is done every 4 weeks and incremental backups are done daily. If data is lost or drives behave strange, AIT can be contacted directly using 45 25 55 55 and will sort out the issue.

6.2.2 Logbooks - area description and use
The U:\DCH\Logbooks area is only used for logbooks and DTU Nanolab files. Any customer files found on the L drive may be deleted without warning.

Most tools have Logbooks implemented in LabManager.

6.2.3 Common cleanroom data – area description – delete policy
The U:\DCH\CleanroomDrive can be used for any kind of data relevant to fabrication or the DTU Nanolab facility. Any DTU Nanolab customer has access to this drive.

To avoid congestion this area goes through periodic purging of old data. On a monthly basis the data on the drive is evaluated and any data which hasn’t been accessed in the past 12 months is deleted.

Deleted files which are still needed can be restored by contacting DTU Nanolab’s system manager. The work needed to restore the files are charged at DTU Nanolab’s standard hourly rate.

A “reasonable amount” of data is acceptable for each user of the area. DTU Nanolab also appreciates that in certain situations it is necessary to work with massive amounts of data. In order
to make this manageable, please store your data in a folder with your initials either directly on U:\DCH\CleanroomDrive\ or under a group folder. Do not store more than 10 Gb of data without notifying DTU Nanolab and either acquire additional cap or temporary permit.

6.2.4 Personal – M - drive description
The M drive is a personal drive and only the person it belongs to, and AIT administrators have access to the content.
For non-DTU customers there is a limit of 10 Gb to the M drive, additional storage capacity can be acquired.
For DTU Customers, the department which you belong to determines how much capacity you have and how to handle it if more is required.

6.2.5 Collaborative – O – drive description – creation/deletion policy
It is possible to create a collaboration drive for any size of group who needs it. A customer can have access to several collaborative drives. To make a collaborative drive, an Affiliation Administrator or Sponsor Administrator must send a mail to DTU Nanolab’s system manager containing:

1. LabManager sponsor name to bill the drive to
2. Name for the drive (max 15 characters – normal Microsoft Windows rules for folder names)
3. Capacity desired (if more than 50Gb)
4. DTU-basen initials for everyone added to the group initially

DTU Nanolab will then return with a date for when the drive will be available. DTU Nanolab handles administration of collaborative drives, and thus DTU Nanolab administrators will be able to gain access to the data stored on a collaborative drive.
The collaborative drive has a standard size of 50Gb and can be used for up to 3 years (cost is given in table).
The collaborative drive is owned by the LabManager sponsor originally ordering the drive. The group administrators of this group can request addition or removal of persons to the drive (see rate in table). Individual members of the group can request that they themselves are removed, with the owning LabManager group being charged for the change.
6.3 Increase of storage capacity limits
Sometimes it is necessary to go beyond the standard storage capacity per user. Even though the standard storage capacity of 10 Gb per user on N (and M) and 50 Gb on collaborative O drives is expected to be fully adequate for normal users, it may not be enough. To handle these situations the following paragraphs cover permanent increase of storage capacity and temporary increase of storage capacity.

6.3.1 Increase of storage capacity
If additional capacity is required please contact DTU Nanolab’s System Manager. Capacity is increased in blocks of 50 Gb to keep administration simple. For collaborative drives (O) the increased capacity applies to the rest of the three year period of the drive, for other drives it applies for a year. The capacity increase is not automatically renewed at the end of the year. If massive amounts of capacity is needed (>500 Gb) you must expect a 1 month delay before the capacity is fully available from the date the capacity is requested.

6.3.2 Temporary (<1 month) increase of storage capacity
If you only require extra storage capacity for a limited amount of time (<1 month) please contact DTU Nanolab’s System Manager who can inform on the possibilities and potentially allow going over the cap. If permission has not been granted and a user still exceeds the limit or does so without asking a cap violation charge will be applied, and a cap increase will be retroactively applied.

6.4 Logging on to DTU’s network with DTU Nanolab computers
Computers with access to DTU’s network can be used to gain access to DTU Inside (including CampusNet) and data on M, O or U drives.

6.5 Computers at the DTU Nanolab facility with access to DTU’s network
A number of computers with standard setup and software are available throughout DTU Nanolab’s facilities and can be used to access DTU’s network. At regular intervals, the computers are wiped for all local content and Windows is re-installed. All information on network drives remains untouched.

6.5.1 Software always on DTU Nanolab computers with access to DTU’s network
- Web browser: Microsoft Internet Explorer
- Spreadsheet program: Microsoft Excel
- Text program: Microsoft Word
- Presentation program: Microsoft Power Point
- PDF reader: Adobe Acrobat
6.6 Logging on to DTU's network using a wireless connection

The DTU wireless network can be accessed from many locations at DTU. DTU Nanolab has made sure that the signal is strong in the Cafe area in 346 and in the lunchroom in 347.

To log on:

1. Activate the wireless adapter on your computer
2. Wait until the DTU network has been located by the computer
3. Open a browser, you will be directed to a logon page
4. Logon with your "DTU-basen" initials and password
5. Now you have access

6.7 Accessing non-DTU datasources from the DTU Nanolab cleanroom

Datasources outside DTU can only be expected to be accessible using a web-browser. All computers on DTU's network have web-browsers installed that may be used for access.

The following list of cloud services may be helpful for inspiration:

- [www.dropbox.com](http://www.dropbox.com) a cloud storage solution
- [www.google.com](http://www.google.com) Google Docs offers a range of possibilities beyond storage

6.8 VPN access from DTU Nanolab facilities

It is not a supported option to install customer specific VPN clients on DTU Nanolab’s computers. In general this means that it is impossible to establish a VPN connection from a DTU Nanolab computer to another computer.

6.9 Data transfer using USB storage keys

USB storage keys can be used with the thin client located in the cafe area of building 346. It is possible to log on and thus access M, O and U drives and transfer data from these to a USB storage key.

6.10 Bringing IT-hardware into DTU Nanolab laboratories

Please observe any special cleaning procedures required for the individual labs. Specifically notice that a piece of hardware with a fan is not allowed in cleanroom sections if it has been used at an outside location.

6.11 Non-standard IT solutions

If a non-standard IT solution is desired, it may be possible to establish it, but the process must be expected to take time and resources to establish. A non-standard IT-project needs to go through these stages:

1. The company wanting a non-standard solution must author a project description document containing both a description in common language about what is desired and what hardware/software products are required. Make it clear which acquisitions and services are
to be done by the company and which are to be done by DTU (DTU Nanolab, AIT). This does not need to be a complete implementation project but must provide DTU with enough input to reasonably be able to evaluate the consequences.

2. A representative for the company must then forward the project description document to the Head of Customer Support of DTU Nanolab.

3. The DTU Nanolab Head of Customer Support, evaluates the project with the assistance of AIT and the DTU Nanolab Systems Manager.

4. The DTU Nanolab Head of Customer Support returns to the company with the outcome of the evaluation:
   a. “Yes”: it is possible to go on with the non-standard solution, further details will be given.
   b. “Further detailing needed”: It is unclear to DTU Nanolab what the consequences will be, further work must be carried out to proper evaluate them.
   c. “No”: It is not a solution DTU Nanolab will accept under any circumstances.

5. If the implementation is possible and still desired by the company, the practical work can start. This must be done in close collaboration between, the company, a potential supplier to the company, DTU Nanolab and AIT. DTU Nanolab and AIT will appoint contact persons for the implementation project and may involve additional personnel if the volume of the project requires it.

6. After the implementation the DTU Nanolab contact persons sets up a 1 hour (max charge) meeting with a representative from the company as well as the DTU Nanolab and AIT contact persons and the DTU Nanolab Head of Customer Support in order to close the project, evaluate the outcome as well as the process based on the following criteria:
   a. Performance of the implementation – are there minor issues to be worked out after the project is closed?
   b. How closely does the implementation match the original project description document?
   c. How well did the cooperation between the Company, the company’s supplier, DTU Nanolab and AIT work during the implementation – any significant miscommunication or misunderstandings?
   d. How well did the project definition and evaluation phases work for the different partners?
   e. What learning points are there for future non-standard IT projects?

7. The DTU Nanolab Head of Customer Support forwards the minutes of the closing meeting to all involved within 14 days after the meeting.

6.11.1 Payment for non-standard IT solutions

All hours spend by DTU Nanolab and AIT personel on a non-standard IT project are charged to the customer at DTU Nanolab’s standard rate, regardless of the phase of the project and the success of the implementation. For even the smallest projects it is highly unlikely that less than 10 hours is spent by DTU Nanolab and AIT.