EKL Lab Access and Access Card Policy

Status : approved. Changes may be made without notice.

1 Contents

2 Introduction

2.1 Overview of EKL Labs

EKL offers access to a number of labs referred to as EKL Labs.

- CL100 cleanroom
- CL10.000 cleanroom
    - ▫ MAPPER lab
    - ▫ PVMD lab
- Special Application Lab (SAL)
- Pavilion
    - ▫ MEMS lab
    - ▫ Dicing and assembly lab
    - ▫ Cryo lab

The following labs in the EKL building are not EKL labs because they are controlled by the department of Microelectronics (ME).

- RF Lab
- IC Characterisation (ICC) Lab
- Cryo lab

ME offers access to these labs.

Additionally, to support the operation and use of the labs, EKL offers access to the EKL building, to office spaces, and to facility spaces such as chemical storage space.

2.2 Why does EKL have an access policy?

EKL needs an access policy for the access to the laboratories for the following reasons:

- **Safety**: Lab access entails safety risks.
- **Payments**: Lab access entails charging and invoicing of costs.
- **Operational**: EKL needs information about the user to make the access system work.
- **Legal**: access rights can be granted only to persons who comply with legal and regulatory requirements.

More generally, the European Commission, through the European Charter for Access to Research Infrastructures[1], urges Research Infrastructures such as EKL to have an access policy.

---

[1] https://ec.europa.eu/research/infrastructures/pdf/2016_charterforaccessto-ris.pdf

3   Access policy

- Labs are generally accessible 24/7 but accessibility may be restricted for a number of reasons.
- Persons can get access rights if they meet a set of access requirements.
- To get access rights, and to access labs, persons need to have an access card.
- Access rights do not imply rights of use for equipment and set-ups in the EKL Labs. Rights of use require additional approval by an EKL trainer.
- EKL keeps databases with information on persons with access rights, on access cards, and on access data.
- We distinguish four categories of persons with access rights, depending on purpose and relationship to EKL: users, staff, contractors, and visitors

3.1   General accessibility of the labs

Labs are normally accessible 24/7.

However, labs may be closed during certain times for certain categories of people for a number of reasons, for example for the following reasons.
- Safety. E.g. absence of safety staff, or after safety incidents.
- Efficiency. E.g. closure at night may lead to less energy consumption.
- Maintenance.
- Mandatory leave. E.g. the labs are closed on Christmas day and New Year's Day.

Presently, the Pavilion is closed during the weekend and on weekdays from 18:00 to 08:00, because during these times, air conditioning operates at energy-saving mode, so that hazardous fumes may not be exhausted sufficiently.

Users of labs in the EKL building also get access rights to the building itself.

3.2   Access Rights

3.2.1   Access rights to labs

Access rights can be granted to different EKL labs, depending on need, safety requirements, and authorisation.
- CL100 cleanroom
- CL10.000 cleanroom
- Special Application Lab (SAL)
- Pavilion
    - MEMS lab
    - Dicing and assembly lab

Additionally, access rights are granted for access to the RF lab, the IC characterisation lab, and the Cryo lab, which are not EKL labs but labs controlled by another department. People with access rights to CL100 and Pavilion also get access rights to RF and ICC lab; this has been agreed upon with dept. ME. Also, access rights can be granted for access to facility spaces, such as:

- the basement,
- the chemicals storage space,
- the air treatment facility,

to people who need access to these spaces, for activities such as:
- maintenance of facility and equipment
- logistics of chemicals and gases
- cleaning
- guided tours for visitors.

3.2.2   Access rights to offices and EKL building

Access rights to offices and the EKL building can be granted, depending on need, safety requirements, authorisation, and availability of office space. Such rights are typically granted to people who need office space in the vicinity of the labs. Access rights to the building are not granted to people who do not have offices in the EKL building and who do not have lab access rights.

3.2.3   Categories of persons with access rights

For practical and accounting reasons, we distinguish four categories of people who get access rights.
1) Users
   a) Users enter the labs to use them for their own purpose. EKL charges costs to users (or, more accurately, their organisations) for entering some labs (CL100, Pavilion).
2) Visitors
   a) Visitors enter the labs to take a look.
   b) Visitors are not allowed to do any work, and must be in the company of a qualified user or staff member. "Visitors must keep their hands on their backs".
3) Contractors
   a) Contractors enter the labs to execute work for EKL, and sometimes for other groups who own equipment.
   b) Mainly for maintenance, installation, cleaning.
4) Staff
   a) Staff enter the lab to support users, guide visitors and contractors, maintain equipment. Staff is not permitted to use the lab for processing unless special arrangements have been made, e.g. EKL Processing staff keeps separate processing time records.

The categories are distinguished for practical and accounting reasons:
- some people have to pay but others do not,
- different access requirements and procedures apply, and/or
- they must be discerned in several reporting systems.

Some persons may access the cleanroom for several of these categories, or be a user for several organisations at once. They can get several access cards to facilitate billing to separate organisations.

3.2.4   Requirements for access rights

Persons can get access rights if they meet a set of access requirements with regard to:

- Administration
- Safety
- Financial arrangement
- Operational necessity
- Legality of stay
- Compliance with rules.

Access rights can also be limited by conditions of laboratories.

3.2.4.1 Administration

1) **Register.** All people getting EKL access rights, a campus card from EKL, or an EKL card from EKL, need to be registered in the EKL administration.
   a) **All users** need to register in the **EKL user database**. They have to provide their personal data (like contact in case of emergency), company data etc. The system will generate a access form that has to be signed by the user, **his Supervisor[2]**, and by the person that is authorized to pay (**"Budget holder"**). The procedure laid out on the registration form has to be followed.
   b) All other people (non-users) entering with **campus cards** need to register in the **EKL user database**.
   c) All third party users need to fill in a **hospitality form, including mandatory attachments such as ID copy,** to confirm that they will follow the applicable rules and regulations.
   d) All other people entering with **EKL cards** need to fill in dedicated **EKL card issue list** at point of card issue.
2) **Log in / log out for lab access.** All people entering a lab need to log in when they enter, and log out when they leave the lab.
   a) Logging is done at the lab door by swiping an authorised campus card or EKL card across the **reader near the door**.
   b) Logging in is allowed only with your own **personal card**. Access of more than 1 person on the same card is strictly forbidden.
   c) The personal card gives access only if dedicated EKL staff have assigned **access rights** to your card.
3) **Log in / log out** when accessing the building.

3.2.4.2 Safety

1) **EKL Safety and Introduction Course** is mandatory for all people entering EKL labs unaccompanied by a qualified supervisor (= qualified staff member or qualified user)**.**
2) **Compliance with EKL safety and house rules is mandatory.** Safety rules are regularly changed, and therefore not discussed in detail here. Safety rules may include rules about accompaniment by qualified personnel.
3) **Contractors, users and visitors** must have signed a form saying they will comply with the rules.

---

[2] Typically, the Supervisor is the scientist responsible for overall supervision of a student.

4) **Regular use to remain familiar with safety procedures.** For safety reasons, access rights are revoked after 6 months of absence from the cleanrooms. This has to be manually reset in the access control system, after a refresh safety course. (Quiz on EKL intranet).

3.2.4.3 Financial arrangements

1) **Contract is necessary for each User.**
   a) Users from a TU Delft research group
      i) ERP-LN-code is necessary
      ii) Approval by authorised person ("budget holder") is necessary.
   b) Users from third parties:
      i) contract is necessary.
      ii) consent from an authorised ("budget holder") person
   c) Third parties shall inform EKL forthwith if access rights need to be revoked, for what reason whatsoever, including but not limited to termination of employment.
2) For staff, contractors and visitors: no contract/ LN-code[3] is necessary.

3.2.4.4 Operational Need

1) **Valid reason for entry.** You can only get access to EKL Labs with a valid reason to go in. The main reasons are:
   a) To use the lab for research, development, training, or manufacturing.
   b) To execute equipment maintenance, equipment installation, delivery of goods, logistics, or cleaning.
   c) To take care of safety, health, security, working conditions, or environmental protection matters.
   d) To attend a lab tour.

3.2.4.5 Legal conditions

1) **Legality of stay in the Netherlands.** People entering the lab need to have legal permission to work in the Netherlands.
   a) Campus card holders are automatically legal residents of the Netherlands (this will be checked by the TU Delft when they issue a campus card).
   b) For EKL card users:
      i) TU Delft users including visiting researchers and students: Supervisor confirms legal status on EKL access form.
      ii) Third party users
         (1) Company is responsible for and guarantees legal stay in the Netherlands
         (2) User must fill in hospitality declaration, with required appendices such as copies of passports, residence permits.

3.2.4.6 Compliance with rules

- **EKL Safety and house rules** must be followed at all times.

---

[3] ERP-LN code; formerly called Baancode

- **TU Delft rules** must be followed at all times.
- If there is a reasonable suspicion or proof of violation of the rules, the access rights will be revoked immediately, and the card holder is informed.

3.2.5 Duration of access rights

The time period of the access rights to the EKL laboratories depends on to which Category the person belongs (User / Contractor / Staff / Visitor).

1) Staff: Duration of contract with TU Delft.
2) Contractors: Duration of registration as 'external' in PeopleSoft; if no such registration, for duration of work.
3) Users: indefinite duration. EKL revokes access right at the request of a user's Supervisor or Budget Holder, or after a reasonable time after expiration of an access contract.
4) Visitors: for duration of visit.

After the duration, access rights are revoked.

Additionally, access rights can be revoked, and the duration limited, for a number of reasons, including but not limited to:
1) Written request of the authorised person to revoke access rights
2) Termination of the contract between EKL and a third party.
3) Non-compliance with the conditions for access rights.

3.3 Access cards

To get access and access rights, you need to have an access card first. This is either a valid personal campus card or an EKL card that has been issued to you personally.

3.3.1 Who can get an access card

EKL issues Access cards ONLY to:
- Persons who will enter EKL labs and satisfy the access requirements
- Persons who will not access the labs but belong to EKL
- Persons who will not access the labs but work for EKL or EKL customers.

3.3.2 Campus card is standard; EKL-card only for non-standard occasions

The campus card is standard for access to EKL Labs. TU staff, TU Delft students, visitors and third party personnel are supposed to have a TU campus card.

The EKL card is issued only if it is not possible to get a campus card in a reasonable time, e.g. in the following cases.
1. Duration of application for campus card and duration of stay are not in proportion (for visitors, most contractors, and non-EU users for whom the application process typically lasts 3 months).
2. Pending the receipt of a requested campus card if the handling of the request takes much time, e.g. users from non-EU countries.

EKL decides what time is reasonable in each case.

An EKL card is not issued in the following cases.

- Having left one's campus card at home
- A damaged or lost campus card for which the user has to request a new card

3.3.3 Types of EKL Cards

There are 6 kinds of EKL cards:

1) EKL Contractors Equipment
2) EKL Contractors Facilities
3) EKL Visitors
4) EKL Users
5) EKL MAPPER Users
   a) (now printed on card: "MAPPER EKL ##" – this will be changed in the future)
6) EKL MAPPER Visitors
   a) (now printed on card: "MAPPER Guest ##" – in Access Registration system denoted "Gastenkaart MAPPER ##" - this will be changed in the future)

There are several types of cards for practical reasons, like usefulness for charging costs, controlling access conditions per category, and ease of interpretation in the access control system. (E.g. all people that used their cards to enter the cleanrooms are shown on a monitor, which is checked by the fire brigade in case of an emergency).

Standard authorisation of EKL cards

- EKL Contractor cards: standard access to all spaces
- EKL Visitor cards: standard access to all spaces
- EKL Users: no access rights – requires setting access rights for each case
- EKL MAPPER Users – standard access rights to CL10.000 and PAV
- EKL MAPPER Visitors – standard access to all spaces

Contractors and visitors have standard unlimited access on EKL cards but they need to be accompanied by qualified EKL Staff or EKL Users at all times.

MAPPER has dedicated MAPPER cards, only to be used by MAPPER Users and Visitors.

3.3.4 When to return EKL card

- EKL Cards issued to Staff: get campus card immediately, return EKL card as soon as possible.
- EKL Users: return card on or before indicated date ; if no date indicated, return within one day.
- EKL Contractors: return card on or before indicated date; if no date indicated, return within one day.
- EKL Visitors: return on or before indicated dated; if no date indicated, return within one day.

3.3.5 Ownership of cards

- Cards are property of TU Delft
  - EKL Cards are managed by EKL.

- Cards are issued under the condition that they are returned on a certain data or depending on a certain condition.
- Card holder must take care of the card that he has received.
- Card is personal. Card is never to be used by or passed on to others.
- Card holder shall return EKL Cards to EKL on or before an agreed date.
- Card holder shall return EKL Cards to EKL immediately when requested by EKL.
- Card holder shall return EKL Cards to EKL immediately when his access rights have been revoked.

3.3.6 Validity of cards

EKL cards are valid indefinitely but Campus cards are valid only during the time that is set in the PeopleSoft database, which is not accessible by EKL. Campus cards may therefore accidentally expire before the access rights expire.

3.3.7 Registration and monitoring of EKL cards

- There is a central registration of EKL cards. This is a separate database, which may be connected to the EKL user database system, which contains the personal data, lab education etc.

3.4 Organisation of access right and card management

3.4.1 EKL Staff involved

The following EKL Staff are directly involved in granting access rights:
- Secretary EKL
- Authorised Technicians

They are appointed by EKL Management.

During office hours, one **EKL Process Engineer** is on duty as cleanroom supervisor. The supervisor monitors compliance with access regulations, e.g.
- if persons in the cleanroom log in and out
- adherence with safety instructions.

3.4.2 Who can grant and revoke access rights

Access rights to the EKL laboratories on campus cards and EKL cards are granted and revoked by EKL. Also the revocation of access rights is done by EKL.

Category	Staff member who authorises
Staff	Secretary EKL
User	Secretary EKL
Visitor	Secretary EKL
Contractor	Secretary EKL / Authorised Technicians

3.4.3 Who can issue campus cards and EKL cards

EKL cards are issued by EKL for visitors, contractors, and short-stay users.

Issue of EKL cards is recorded in the EKL card database.

Campus cards are issued by support departments TU Delft (HR and Student Administration). To get a campus card, follow the pertinent procedure. The process of campus card issue can be quick or slow, depending on several factors. EKL cards can be used in some cases, see Section 3.3.2.

Card type	Category	Staff member who issues card
Campus Card	User	Secretary of User's group
Campus Card	EKL Staff	Secretary EKL
Campus Card	Contractor	Secretary EKL
EKL Card	Staff	Secretary EKL
EKL Card	User	Secretary EKL
EKL Card	Visitor	Secretary EKL
EKL Card	Contractor	Secretary EKL / Authorised Technicians

3.5 Databases and systems

EKL keeps the following systems to control access rights and access cards.

- An **EKL user database**[4] with all relevant information concerning users and other persons with access to EKL labs.
- An EKL card database (web based database).
- Documents / lists regarding issued and returned cards
- Access request and change request forms
- An access control system (iProtect).
    - Monitors show in real-time which persons are present in the labs
- Locker(s) with EKL cards.

Additionally the following related information may be stored
- Information on how procedures are executed
- Information on exceptions that have occurred.

---

[4] As a part of the Phoenix system