



**ECHA/2016/146**

**ECHA Building 2020**

**Market Prospection**

**(Article 134.1(g) of the Rules of Application of the  
EU Financial Regulation)**

**Annex 3.1.1**

**Functional, Operational & Technical Requirements**

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# Acronyms

AV	Audio-visual
BIM	Building Information Modelling
BPC	Biocides Product Committee
BREEAM	Building Research Establishment Environmental Assessment Methodology
dB	Decibel
DG SCIC	Directorate-General for Interpretation ( <i>Service Commun Interprétation-Conférences</i> )
EMAS	EU-Eco-Management and Audit Scheme
ECHA	European Chemicals Agency
EEC	European Economic Community
EN	European Norm
EU	European Union
ExO	Executive Office
FTE	Full Time Equivalent
GHz	Gigahertz
ICT	Infrastructure and communications technology
IDF	Intermediate Distribution Frame
ISO	International Organisation for Standardization
kW	Kilowatt
LEED	Leadership in Energy and Environmental Design
MHz	Megahertz
MIFARE	Mikron FARE Collection System
MSC	Member States Committee
PIC	Prior Informed Consent
R'w	Weighted Apparent Sound Reduction Index: field measurement
RAC	Risk Assessment Committee
RFID	Radio-frequency Identification
RH	Relative Humidity
RT	Rakennusteollisuus

SEAC	Committee for Socio-economic analysis
SFS	Suomen Standardisoimisliitto
TIA	Telecommunications Industry Association
TV	Television
UPS	Uninterruptable Power Supply

# 1 GENERAL DESCRIPTION OF REQUIREMENTS

## 1.1 Background

The European Chemicals Agency (ECHA) is a European Union (EU) Agency currently located in Annankatu 18, Helsinki, Finland.

ECHA is seeking a new or renovated office building. The objective is to obtain new, modern and efficient office solutions for its future premises.

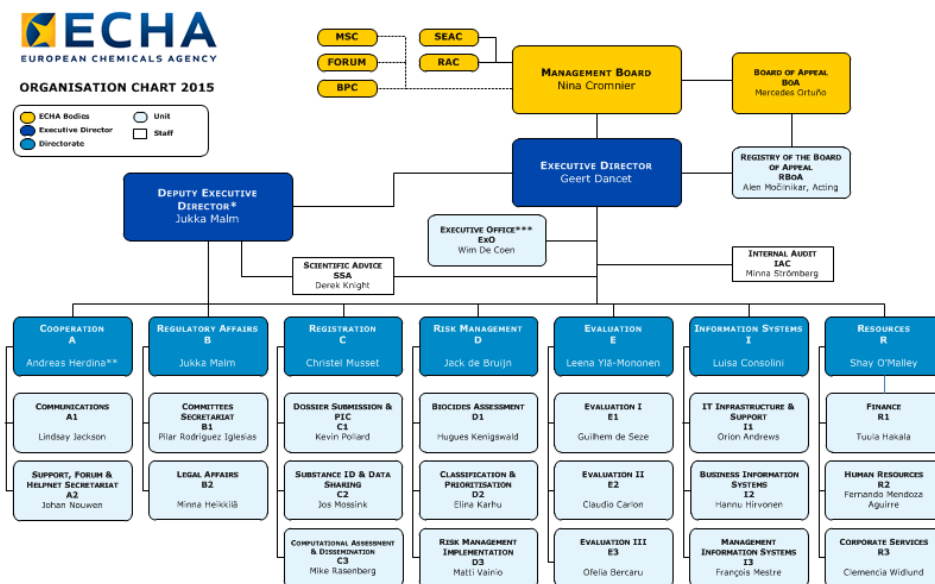
In order to better meet its objectives, ECHA is considering alternative premises which will:

- Meet the spatial, functional and technical requirements of the business and personnel for the next 10 to 15 years;
- Enhance ECHA's co-operation between and within its processes and functions
- Increase the flexibility of the workplace and organisation
- Develop wellbeing, atmosphere and safety
- Meet the above objectives within approved budgets and time limits, adhering to all relevant EU and local guidelines and policies.

## 1.2 ECHA organisation

ECHA has a basic requirement to accommodate for 650 personnel (ECHA staff, consultants, interims and trainees) across a number of scientific and support units in 2020. The organisational structure of ECHA is based on directorates divided in units, as detailed in the organigram below:

**Figure 1 Organisation chart**



\* Exercising also the function of Director of Regulatory Affairs  
 \*\* Exercising also the function of SME Ambassador  
 \*\*\* The Quality Manager forms part of the Executive Office

## **2 DETAILED SPECIFICATIONS OF REQUIRED SPACE**

The purpose of this document is to describe the initial requirements for ECHA's future premises. As indicated in the Market Prospection Specifications, the final programme will be further fine-tuned during negotiations with the candidates on the merit list, while ensuring that ECHA's broader objectives for the premises are met in terms of efficiency, adaptability, security and value for money.

This document is developed to provide insight on ECHA's specific functional, operational and technical requirements. A candidate can always propose a different solution that is either of equivalent or higher standard.

Each response to a need or requirement will be evaluated and the bidders will be ranked according to their scoring (see 2.5 Section Two: Technical Proposal of the Market Prospection Specifications).

### **2.1 Usability and wellbeing**

Premises featuring an architectural concept entirely focused on guaranteeing a comfortable and user-friendly office space will be ideal.

Particular care should be given to acoustic insulation, air quality and natural light to ensure a healthy and stimulating working environment; likewise, circulation in the building should be easy, logical and immediately comprehensible to both personnel and visitors.

The building design should be favouring communality. Therefore it is suggested that the building lay-out is based on a central area serving in a logical and immediately comprehensible way the majority of the office areas and the shared facilities (canteen, meeting areas, etc.). This should result in the promotion of a user-friendly space with direct routes between the different functions and facilities.

The premises should provide an enjoyable place for visitors and personnel supporting productivity.

### **2.2 Sustainability and energy efficiency**

An environmental certification BREEAM 'Very Good' or LEED 'Silver' is considered a requirement.

Proposals that provide a higher environmental certification, such as BREEAM 'Excellent' or LEED 'Gold', will be favoured.

ECHA is setting up an Environmental Management System in line with ISO 14001 but is aiming as an organisation to be EMAS Certified in the near future.

Additionally, the application of innovative and environment friendly solutions in construction and in-house technologies to reduce environmental impact and enhance the sustainability of the building will be considered an extra asset.

## **2.3 Deliverability, feasibility and timing**

### **2.3.1 Building Information Modelling (BIM)**

A project that adapts the BIM methodology during design and construction has many advantages in terms of risk reduction, quality assurance and management of the project related to time and budget. It is preferred that the as-built file is delivered according to the BIM methodology.

### **2.3.2 Schedule**

ECHA's current lease agreement expires on 31 December 2019. In addition ECHA's Management Board needs to obtain approval from its Budgetary Authority, i.e. the European Parliament and the European Council, before entering into any legal agreement. Approval by the Budgetary Authority is currently foreseen for the end of 2017 at the latest. In addition, any project timeline should take during the realisation of the project into consideration a fitting-out phase, including commissioning, followed by a short period of preparatory activities prior to the actual removal phase.

In order to give ECHA the possibility to prepare the premises before the removal, it is expected that ECHA will have access to the premises at least 4 months before the start of the move.

## **2.4 Location**

The requirements concerning location and functionalities are the following:

- Premises must be located in the City of Helsinki, with easy accessibility by public transport (particularly from Helsinki Vantaa airport and the European School Helsinki)

Preference will be given to locations:

- in the Helsinki City Centre;
- within walking distance to public transport and hotel accommodation;
- within 500-metre walking distance from public parking.

The future office building should be comprised of office accommodation and an in-house or adjacent Conference Centre.



## **2.5 Flexibility and modularity**

- Readily and economically flexible premises which are capable of adapting if occupier requirements change, in particular by the use of movable partitions.
- The solution should give a good qualitative answer to different needs and situations: flexible and modular office space with movable partitions. This should give the possibility to create various sizes of individual office rooms, shared office rooms and team areas with a choice of multi-use rooms, collaboration rooms, silent rooms and concentration rooms.
- Easily adaptable and flexible facilities such as the conference centre and the canteen with the cafeteria.
- The office plan should allow dividing the office area into separate leasable units for external users.

## **2.6 Profile, vision and values**

- The premises must be a standalone building for the sole use of ECHA, or, if shared with other tenants, ECHA must have at least its own dedicated and exclusive entrance, serving only ECHA personnel and visitors.
- The appearance of the premises should reveal their function and role within the urban environment. For example, it should be clear that an important EU Agency is based in the building. The entrance itself should express ECHA's mission and values and make reference to its European role. The image conveyed by the façades and volumes of the premises could reflect the strength, distinctness, transparency and dynamics of the European project.
- The premises should promote architectural innovation. However, they should not be obtrusive or ostentatious, but aligned to ECHA's mission, vision and values (transparent, independent, trustworthy, efficient and committed to wellbeing).
- ECHA's preference is to be the sole occupier of a single building. The ideal building for ECHA would be a single-tenant, self-contained building located at an appropriate distance from and not overlooked by other buildings.
- ECHA would prefer to have dedicated elevators (programmable with access card readers) or other available solutions to guarantee an appropriate level of security control to restrict the access by unauthorized persons.
- The building should feature signs, information plates and flags at the entrance. ECHA's logos will be visible in common areas such as the reception areas.

## 2.7 Operational requirements and functionality

The premises should be a tailored facility which meets ECHA's operational requirements.

### 2.7.1 Size

The space available to ECHA must be about 19.000 m<sup>2</sup> distributed as follow (see also Annex 1 Room Programme)

- |  |                       |
|--|-----------------------|
| • Private/office area                              | 11,600 m <sup>2</sup> |
| • Conference facilities                            | 3,500 m <sup>2</sup>  |
| • Public and semi-public area including restaurant | 1,900 m <sup>2</sup>  |
| • Other spatial requirements                       | 2,000 m <sup>2</sup>  |

This is considered as an indicative size suitable for hosting ECHA's operational requirements. These areas are estimated leasable areas used (net floor area (NFA) + the area of staircases) as defined in RT 12-11055.

### 2.7.2 Occupancy requirements

The premises must be able to accommodate up to 650 personnel (ECHA staff, consultants, interims and trainees). For the time being one personnel equals one Full Time Equivalent (FTE).

The room programme in the annex is based on an efficiency of 18sqm/FTE for private/office area and max 35sqm/FTE overall.

### 2.7.3 Efficiency and functionality

It is not acceptable that private/office areas for ECHA are separated in the building by other tenants or facilities located in-between (whether horizontally or vertically).

The premises should have a high-efficiency ratio (yield by surface) that will permit optimal use of the areas available. In such a case, the different areas would be arranged efficiently in a layout allowing easy communication flows (both internal, between departments, and external, with incoming/outgoing visitors and suppliers).

Premises capable of using spaces efficiently and minimizing walking time from one part of the building to another will be considered ideal.

The building should be harmonious and consistent in terms of architecture. The quality of architectural, interior and functional solutions should promote efficiency in the working environment and help to create a communicative, well-functioning and modern working environment.

## **2.7.4 Type of area**

The new premises should comprise three main areas:

**Public area** – main entrance hall including meet & greet area for visitors and spouse or kids.

**Semi-public area** – reception (with security), entrance foyer with toilets, coat racks and suitcase storage, conference facilities, a restaurant and a reading area (see Annex 1 Room Programme).

**Private/Office area** – workplace area with collaboration-, support- and other spaces.

## **2.7.5 Space use**

The information below indicates the layout of the premises in order to meet the functional and operational requirements of ECHA.

### **2.7.5.1 Public area**

#### **2.7.5.1.1 Main entrance lobby**

ECHA would like the entrance to be accessible barrier free and easy to locate with a functional and aesthetic quality.

The reception area will be accessible to visitors and ECHA personnel without registration and is easily accessible from the main entrance.

Security barriers must be in place to define the public, semi-public and private/office areas.

The entrance lobby should accommodate groups of 30-40 people waiting to register or waiting for ECHA personnel.

The entrance lobby will have an area for public relations material and presentations.

#### **2.7.5.1.2 Meet & greet area**

The meet & greet area is used by visitors for quick informal meetings with ECHA personnel or by the children and spouses of ECHA personnel as a waiting area. The area should be located adjacent or integrated into the main entrance lobby (public). The area has access to a separate toilet.

## **2.7.5.2 Semi-public area**

### **2.7.5.2.1 Reception with security barriers**

The reception area should be designed to support an efficient control process for visitors and external persons.

Semi-public areas will only be accessible via security gates with a magnetic badge, RFID or similar technology. External visitors will enter through a separate access gate equipped with a metal detector. Luggage will require scanning through an x-ray machine.

### **2.7.5.2.2 Foyer with toilets, cloakroom and luggage cabinets**

The foyer area includes a cloakroom with lockable luggage cabinets and guest toilets. Easy access to the conference centre is desirable.

### **2.7.5.2.3 Security control room**

The security room should be located adjacent to the reception. There should be a separate control room and a break room with kitchen, personal lockable clothes cupboards and a toilet.

### **2.7.5.2.4 Conference facilities**

The conference facilities have versatile use, including formal committee meetings and conferences, personnel meetings and social activities.

The conference facilities should have functional and aesthetic interior solutions that support ECHA's mission and values. The interior surfaces should be of high quality in aesthetics as well as durability. The concept, air quality, acoustics, light (preferably natural with light blocking blinds), AV equipment, etc., should all contribute to ensuring an optimal meeting experience for the meeting participants.

### **2.7.5.2.5 Multi-use room for conferences**

A large multifunctional meeting room for 600 persons.

The room is used for meetings and various types of events and exhibitions. The room can be divided into 2–4 separate meeting rooms, which can be in use at the same time and accessed separately. AV solutions and furnishing will be flexible to support a great variety of events.

An AV control room is connected to the multi-use room with direct view into the room. Space for mobile interpretation booths (3 pieces) should be planned.

This multifunctional room should have a minimum sound proof value of 48 dB R'w.

### **2.7.5.2.6 Committee Meeting rooms**

There are three committee rooms. Each room should have at least two entries from different directions, to allow easy access and evacuation.

The larger room has a seating capacity for 100–150 representatives and is provided with at least 20 additional observer seats.

Two smaller rooms have a capacity for 70–100 representatives and are also provided with 20 additional observer seats.

The rooms should preferably have a tiered U-shape seating arrangement with fixed high-quality conference tables supplied with microphones and personal monitors. These rooms will be equipped with high-end AV systems and high-end furniture including interpretation booths. All necessary cabling will be part of the fit-out offered and provided by the successful candidate.

The committee rooms share the use of 3 interpreter booths and an adjoining AV control room that has a direct view of the committee rooms.

The committee rooms should have a sound proof value of 55 dB R'w.

### **2.7.5.2.7 Interpretation booths**

The interpretation booths should comply with the highest standards, preferably the standards issued by DG Interpretation<sup>1</sup> of the European Commission.

ECHA would prefer three two-person interpretation booths of 12 m<sup>2</sup> each.

Each interpretation booth should have a direct view of the committee rooms and visual connections with all the various meeting rooms in the conference facilities. Each booth shall have own access from the corridor.

### **2.7.5.2.8 Audio visual control room, equipment room and technical workroom**

The AV control room(s) will host AV equipment, 4-6 fixed desks for the technical staff and several displays for monitoring various rooms through observation cameras. These monitors may be hanging from the ceiling or be attached to a fixed wall.

Physical direct view to the Committee Meeting Rooms and the Multi-use room is required. Based on this, two AV control rooms are expected: One for the Committee Rooms and one for the Multi-use room. One single room is acceptable on the condition that all these rooms can be built around one AV Control room with direct, physical visual access to all of them. The AV control room(s) shall have an own, separate access from outside corridor/lobby and easy, quick access to the Committee rooms and to the Multi-use room.

There should also be a storage room for AV equipment in the vicinity of the meeting rooms.

The main AV equipment will be hosted in racks in equipment room(s) easily accessible and in the vicinity of the AV Control room(s). Cabling and connections to the technical installations in the AV control room and in the equipment room shall be easy accessible.

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<sup>1</sup> [http://ec.europa.eu/dgs/scic/docs/specs\\_en\\_2010.pdf](http://ec.europa.eu/dgs/scic/docs/specs_en_2010.pdf)

### **2.7.5.2.9 Meeting rooms**

A set of meeting rooms is required to complement the committee meeting rooms. The meeting rooms within the conference facilities may also be used for internal meetings and available in various sizes. They should be designed with professional and high-technological meeting equipment. Two or three medium-size meeting rooms should have a movable sound-proofed partition so they can each be divided into two separate meeting rooms.

Meeting room – 1 x 100 persons, flexible furniture, multi-use

Meeting rooms – 7 x 25-person meeting rooms

Meeting rooms – 5 x 12-person meeting rooms

Out of the 13 meeting rooms, 2–3 meeting rooms can be used for interviews and written tests. Therefore, some privacy would be required in the foyer and meeting room areas. These rooms should have a sound proof value of 48 dB R'w.

Currently ECHA premises have an auditorium with a capacity for 60–100 persons and tiered seating with a pull out table. Seen the limited flexibility of such a room, its use is low. Having an auditorium with the flexibility to be used as an extra meeting/training room is optional. This room should have a sound proof value of 48 dB R'w.

### **2.7.5.2.10 Audio-visual production studio**

For interviewing and recording, an audio-visual production studio is provided.

The noise levels are the same as for the interpreting booth. As a consequence, the location of the studio will not be at street level or noise generating installations. The walls of the studio are covered with decibel wall material.

The studio will have ceiling railings for spot-lights and blackout blinds in case of windows with natural light.

### **2.7.5.2.11 Conference lounge with kitchen and toilet facilities**

The conference rooms have a large lounge area to accommodate the needs of various meeting facilities. The lounge should be dividable into two sections, where lunch or coffee can be served to various users at the same time from a service kitchen close by. The lounge is an area for close collaboration during breaks; it should have space for ad-hoc office work including an area for confidential bilateral or concentrated work.

The conference lounge has various types of furniture to meet the various needs of a food service area, break area, exhibition area, a reception desk for that can host up to 5 receptionists and a 'welcome' lounge.

The toilet facilities should be near the lounge and serve a large number of meeting room users. Furniture storage and technical equipment storage should be easily accessible from all meeting facilities. A copy/printing area should be arranged near the committee rooms.

### **2.7.5.2.12 Canteen, cafeteria and warm kitchen**

The restaurant/canteen and cafeteria areas are in connection and they share kitchen facilities. The canteen will serve daily breakfast and lunch (minimum 3-course lunch) for ECHA personnel and conference guests. Currently up to 1.000 lunches/day in several shifts between 11:30 and 14:00 are served.

It has a high level serving area which is preferably a combination of self-service/buffet area and a serving counter with the possibility for overall 3 to 4 lunch options. The cafeteria will serve coffee, other drinks, sandwiches and cold dishes. Both areas are used for collaboration and encounters outside the lunch hour.

The interior surfaces should be of high quality in aesthetics as well as durability and functionality. Fixed service counters should be designed as an integral part of the interior solution.

The canteen and cafeteria area should accommodate around 250–300 seats. ECHA wishes to have a canteen with a cafeteria integrated in the building for the use of its personnel and visitors.

This canteen/cafeteria will be operated by an external caterer contracted by ECHA.

The kitchen should be fully equipped and include a hot cooking area, cold food production area, coffee kitchen area, freezer and refrigerators, and a supply storage room. Adjacent to it, there should be personnel dressing room, shower, toilet facilities and a kitchen cleaning closet. The kitchen facilities should fulfil the Finnish norms, legal requirements and standards.

The kitchen should have easy access to the loading dock area.

The kitchen will provide lunch and coffee services to the conference centre facilities, which include a smaller service kitchen. Circulation between the conference rooms and the kitchen should be easy.

#### **2.7.5.2.13 Lunch cabinet**

A lunch cabinet, which can be divided into two parts, is located adjacent to the canteen and kitchen. It is used for small formal lunches with high level visitors/guest.

#### **2.7.5.2.14 Reading area**

The reading area could be located openly, with an immediate connection to the canteen, main entrance and lobby or conference lounge.

Areas within the reading area should include:

- Journals section and display/exposition area;
- A consultation area for 5–10 people with tables and chairs;
- Two work desks;
- Small sound proofed area for photocopying and printing;
- A separate back office area with two parallel work desks and the option to add a third;
- A small, isolated room for support personnel meetings;
- A storage room containing rolling compact shelves for long-term storage of old books etc.

### **2.7.5.3 Private/office area**

The private/office area will only be accessible to ECHA personnel with a security permission, registered visitors only gain access when escorted by ECHA personnel. Security gates will define the boundary between the semi-public and private/office areas.

The efficiency of the private/office area is 18 sqm/FTE (Full Time Equivalent).

The private/office areas should have an excellent interior quality with an acoustical ceiling system, excellent quality carpeting (Finnish Allergy Association proved) or equivalent for superior soundproofing in various office functions.

#### **2.7.5.3.1 Team areas, shared offices and individual rooms**

ECHA is seeking for a new, modern and efficient office solution with a modular combination between individual offices, shared offices (2-3 workdesks) and team areas (4-8 workdesks).

Minimum 60%, but by preference the complete surface, of the private/office area should be designed based on a standard grid (e.g. 3,60m x 3,60m) to have maximum flexibility and modularity in technical and acoustical requirements.

The office rooms should be built with an easily movable partitioning system. Installation or removing should be possible during office hours with minimal disturbance for the activities of the Agency, i.e. dust and noise free.

Each office module should be equipped with technical equipment such as power supply, network outlets, lighting, fire detectors, sprinklers, air-vents etc., allowing changes from team areas to room layout with minimal changes and adaptations in these installations.

#### **2.7.5.3.2 Medium collaboration rooms (10–12 persons)**

The medium-size meeting rooms, accommodating 10–12 persons, desired number of room: 1:30 desks, for internal meetings with the possibility of telecom/videoconference meetings.

These rooms should have a sound proof value of 44 dB R'w.

#### **2.7.5.3.3 Small collaboration rooms**

Multi-use rooms for 1–2 persons and 4–6 persons are required near work desks areas. The rooms are used for concentration work, bilateral meetings, internal teamwork, conference calls or individual calls.

These rooms should have a sound proof value of 48 dB R'w.

#### **2.7.5.3.4 Work cafe**

Each office floor/ unit should have at least one social corner for informal meetings and coffee breaks. These must be equipped with high-quality, open, built-in kitchen cabinets including the equipment.

#### **2.7.5.3.5 Toilets**

The toilets should be equipped in line with the Finnish planning requirements of 1/15 women and 1/20 men. They should be located in individual rooms, with walls and floor waterproofed and tiled. The washrooms have high-quality table tops, sinks and mirrors.



### **2.7.5.3.6 Copy room, storage room, wardrobe, cleaning closet**

Each office floor/unit should have:

1–2 copy rooms with space for 1–2 multifunction copy machines, waste sorting bins, shelving for office supplies, mail distribution and copy paper.

Built-in wardrobes should be located at floor entrances or next to toilet doors; rack space 10cm/person.

Small storage room with flexible metal shelving system.

One small cleaning closet with a tap and sink, shelving, cleaning supply rack.

### **2.7.5.3.7 Local archive rooms**

There will be a local archive per Unit on each office floor. The purpose is to store efficiently paper files that do not need to (or cannot) be transferred yet to the central archive.

The local archive rooms have a metal structure for a mobile shelving unit with surface mounted floor railing can be installed. The unit will have 3–5 shelves. It must be lockable.

### **2.7.5.3.8 Intermediate distribution frame (IDF) room**

At least one IDF (cross-connection room) per floor that will house racks which contain the patch panels for the structured cabling system (copper and fibre) and space for the network equipment of ECHA (notably access switches).

Space around the racks must allow to open and work around the racks and on the electrical and cooling equipment of the IDF room.

The IDF rooms should be centrally located (close to the vertical shafts) and the maximum length of a copper TP cable is 90m and compliant with the EN50173 maximum cabling distances.

### **2.7.5.3.9 Medical room and relax rooms**

Two separate medical rooms for appointments with a doctor or nurse are required. These rooms have a hand wash sink.

At least 1 relax room is required.

This room can be also used as a small meeting room. There should be a bed or sofa with curtains and the room should be lockable to ensure privacy.

The relax rooms should constitute a quiet and peaceful environment, where wellbeing and comfort are favoured.

### **2.7.5.3.10 Mail / courier room**

The mail room should be divided into two sections to provide a confidential and secure working environment. These two sections should be interconnected.

The mail/cargo screening office may have direct access to the outside space. This is an area for sorting and security checking of mail/cargo deliveries to ECHA (x-ray machine). The power of an explosion of a bomb letter or package should be directed to the outside. The wall between this sorting area and the second room should be strong enough to withstand the explosion.

The second room should be located next to the main point of mail/packages delivery; at the same time, it should be in a secluded place where access is limited.

### **2.7.5.3.11 Basement – technical area**

The basement must include a loading/unloading area accessible by delivery vans and lorries, various storage and archiving spaces and a space for a power generator.

### **2.7.5.3.12 Gym**

A gym is foreseen to enable the ECHA personnel to keep its physical fitness to perform its duties.

Light equipment, such as treadmills, cross trainers and rowing machines, will be installed by ECHA in the gym room which preferably has natural light. The gym will have dressing, shower and toilet facilities for men and women by preference shared with dressing rooms and shower for bicycle users. A gym combined with sauna facilities will be considered as an advantage.

### **2.7.5.3.13 Dressing and shower facilities for bicycle users, bicycles**

Bicycle parking is needed for 30 % of the personnel members. It should be located outside (covered) or in the basement. Sheltered parking spaces for bicycles should ideally be located as close as possible to the ground floor or the first underground deck, near the pedestrian exits. They must be well lit, physically separated (for example by posts or a secure partition) from spaces for cars, mopeds and motorbikes and from areas used for other purposes (such as technical equipment and depots) to prevent misuse by others.

Two separate dressing and shower areas for men and women should be provided. Each shower area should have 6 showers and two toilets. Both areas have a dressing area with lockable 300–400-mm wide personal cabinets, the men's area having 150 lockers and the women's area 100. The lockers have an electrical locking system. Each dressing area has four drying racks for wet towels and clothing and a counter with mirrors for hair drying, etc.

Bicycle parking spaces for visitors should be provided near the entrance to the building, located so that they do not obstruct pedestrians.

Bicycle stands shall be provided, and allow for easy locking (with user-provided locks) of both front and rear wheels, and easy removal of individual bikes from a full rack.

#### **2.7.5.3.14 Cleaning centre and dressing rooms**

A central cleaning room should be located in the basement or on the first floor. The room should have a changing and washing area (drain with sand separation) for various cleaning equipment, washing machine and dryer, sink and metal shelving including a dry storage area.

Cleaning and facility service personnel are required to have dressing, shower and toilet facilities. These should fulfil the Finnish norms, legal requirements and standards.

#### **2.7.5.3.15 Office supplies / furniture / ICT storage**

Individual storage spaces in proximity to the unloading/loading area are needed for:

- Office supplies
- Furniture
- ICT supplies

#### **2.7.5.3.16 Archives and storage for paper documents**

There will be two separate storage areas for paper documents:

- An archive room, which meets the Finnish requirements of archive rooms: RT OKM-21563.
- A storage room for paper documents with a professional movable file-storing system.

A work desk connected to the ECHA network will be required in both rooms.

#### **2.7.5.3.17 Loading/unloading area, waste room, food deliveries**

A loading/ unloading entrance is desired so that no deliveries are brought via the main entrance. The loading area will be raised from the ground level and it will have one lift. Corridors, ramps and openings must be large enough for carrying goods with trans-pallets. Stairs should be avoided between storage areas and the loading/unloading zone.

A separate waste room with a cold room for food waste is required. It will have separate containers for paper, energy and cardboard waste. One cardboard press is required.

There should be a cold room and a freezer room for food deliveries with direct access from the loading dock.

A good signage for a dedicated route should be created for food deliveries, separate from any other delivery route.

#### **2.7.5.3.18 Parking**

The minimum of 10 parking spaces is required in or besides the building. Altogether, parking spaces are required for 15% of the personnel members. They can be within a 500- metre walking distance from ECHA.

Two parking places for diplomatic licence plated CD cars are required in front of the building.

## **2.7.5.4 Special purpose areas**

### **2.7.5.4.1 Telecom infrastructure entrance room, network room and intermediate distribution frame (IDF) rooms**

For the internal ICT infrastructure and connection with a public service provider, the following rooms are provided:

2 telecom infrastructure entrance rooms connecting ECHA to its selected telecom service provider(s).

For resilience, there are 2 network (distribution) rooms in the building. Preferably, the network rooms are in the immediate vicinity of the telecom infrastructure entrance rooms, and – if the latter are large enough – they can be one. In this case, security divisions inside the room(s) will be required to separate the telco-space from ECHA’s own network equipment (e.g. a metal “cage”).

The network room space requirements are: at least 3 racks to host 19”-devices, and enough space around to open and work on them and for airflow around the racks. Note, that the actual width of such racks, allowing for some rack-internal cabling space, will be much more than 19inches (approx. 75cm). A rack-depth of 100cm shall be assumed for the space planning.

### **2.7.5.4.2 UPS rooms and generator room**

The following spaces for UPS are to be provided for future use including batteries:

- UPS capacity for IT (network room, IDF);
- UPS capacity for security;
- UPS capacity for A/V.

Space is provided for a generator (including space for fuel tank, supply and return air ducting, smoke exhaust) on-site which serves the security and emergency systems.

An external mobile generator can be installed and connected to an electrical socket at the façade of the building so it can feed all installations of the building.

## **3 TECHNICAL ASPECTS**

### **3.1 National Building Code Finland**

The architectural design of the building, its structural design and components and its MEP installations should be compliant with the most recent version of Finland's National Building Code.

Facilities for disabled people should also be according to Finland's National Building Code F1 Esteetön Rakennus.

### **3.2 Security**

Given the nature of the activities of ECHA, the building should fulfil the requirements in terms of physical security based on the "Recommendations for the Industry" of the National Security Auditing Criteria (Katakri) version II, 2011.

### **3.3 Air quality**

In order to have a comfortable working environment, the building should have an adequate indoor air and environmental quality system.

More specifically, the relative humidity (RH) in the working environment (offices, conference facilities, meeting rooms...) of the building should be kept within boundaries to guarantee the comfort of personnel.

The target values for indoor environmental quality and climate in the rooms of the conference area (multifunctional room, committee rooms, meeting rooms) and office area (private area) must be compliant with S1 classification.

Preferably the relative humidity is within the range of 40% to 70% but without affecting the overall indoor air quality. The other rooms and parts of the building should have S2 classification.

Annex 1 Room programme

## ROOM PROGRAMME OF ECHA

	TOTAL SQM	AMOUNT	SQM/SPACE
<b>INDICATIVE SPATIAL REQUIREMENTS IN THE BUILDING</b>			
<b>PUBLIC AREAS</b>	<b>300</b>		
MAIN ENTRANCE LOBBY	200		
MEET & GREAT AREA	40		
ESTIMATED PORTION OF CORRIDORS & HALLWAYS OF TOTAL AREA	60	20%	of total area
<b>SEMI-PUBLIC AREAS</b>	<b>238</b>		
RECEPTION WITH SECURITY BARRIERS	30		
FOYER WITH TOILETS, COATS AND LUGGAGE	100		
SECURITY ROOM	60		
ESTIMATED PORTION OF CORRIDORS & HALLWAYS OF TOTAL AREA	48	20%	of total area
<b>CONFERENCE FACILITIES</b>	<b>3533</b>		
MULTI-USE ROOM FOR CONFERENCES	800		
COMMITTEE ROOM 1	300		
COMMITTEE ROOM 2	200		
COMMITTEE ROOM 3	200		
INTERPRETATION BOOTHS	40		
AUDIO VISUAL CONTROL ROOM AND TECHNICAL WORK ROOM	55		
MEETING ROOMS 7 x 50 sqm	350		
MEETING ROOMS 5 x 35 sqm	175		
MEETING ROOM, multi-use	180		
LOUNGE + COLLABORATION AREA + EXHIBITION	450		
KITCHEN	50		
GUEST'S TOILETS	80		
FURNITURE STORAGE	300		
ESTIMATED PORTION OF CORRIDORS & HALLWAYS OF TOTAL AREA	353	10%	of total area
<b>RESTAURANT</b>	<b>1300</b>		
CAFÉ	250		
RESTAURANT/CANTEEN	550		
LUNCH CABINET	50		
KITCHEN w/ dressing, storage	250		
GUEST'S TOILETS	20		
READING AREA	50		
ESTIMATED PORTION OF CORRIDORS & HALLWAYS OF TOTAL AREA	130	10%	of total area

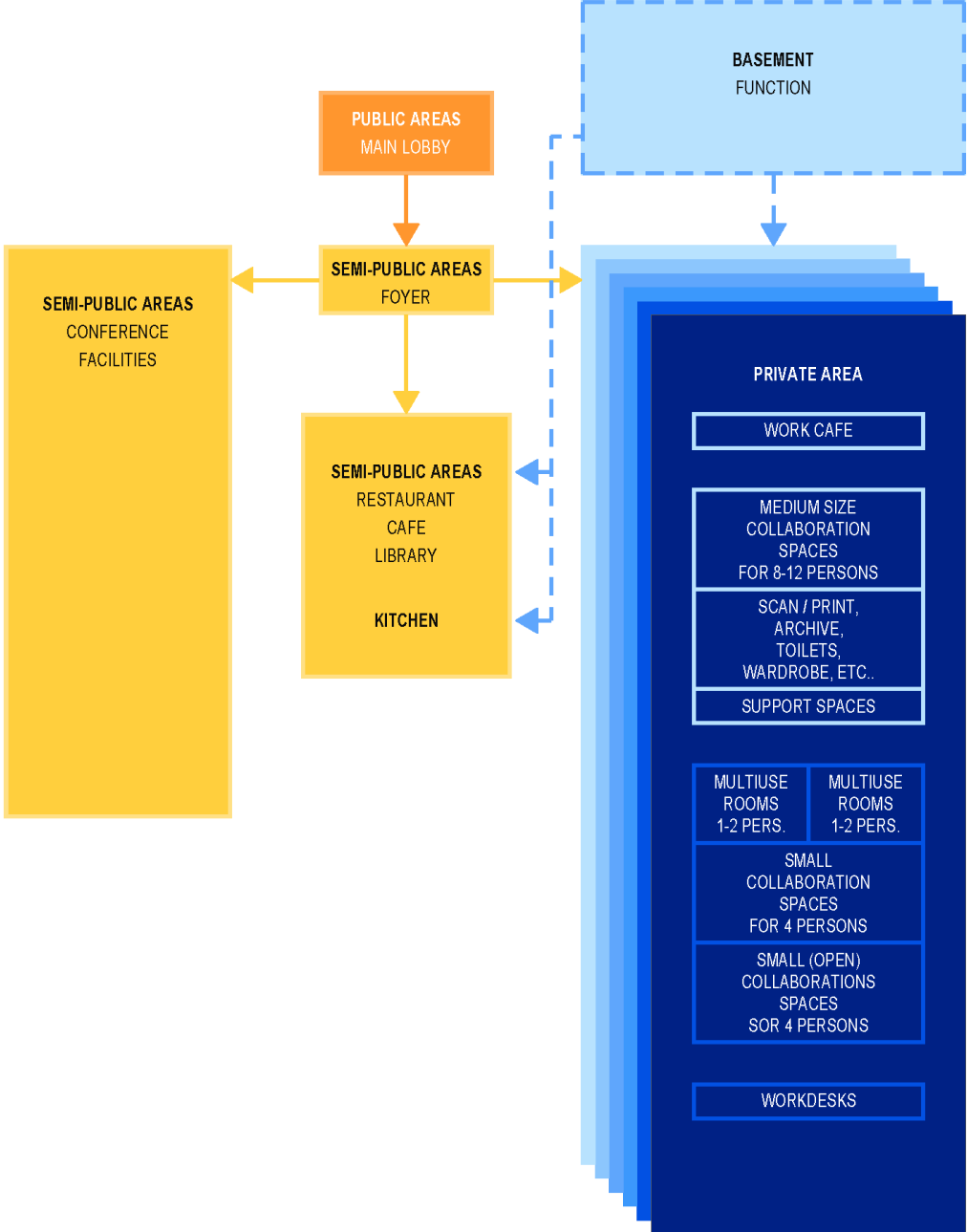
<b>PRIVATE/OFFICE AREA</b>			
<b>WORKDESKS (internal)</b>	<b>7215</b>		
WORKPLACES IN TEAM AREAS (COLLABORATION ORIENTED AND DIGITAL, 4-10 PERSONS)	0	0	5,5 <sup>2</sup>
WORKPLACES IN TEAM AREAS (CONCENTRATION ORIENTED AND SOME PAPER, 4-10 PERSONS)	1435	205	7,0 <sup>2</sup>
DOUBLE OFFICE (2 PERSONS)	1896	237	8,0 <sup>2</sup>
SINGLE OFFICES (1 PERSON)	2080	208	10,0 <sup>2</sup>
ESTIMATED PORTION OF CORRIDORS & HALLWAYS OF TOTAL AREA	1804	25%	of total area
<b>LARGE COLLABORATION SPACES (internal)</b>	<b>1567</b>		
WORK CAFES	430	21	20,5
MEDIUM SIZED MEETING ROOMS (10-12 PERSONS)	660	22	30,0
WORKDESK IN SHARED QUIET AREAS & VISITOR AREAS	85	13	6,5
ESTIMATED PORTION OF CORRIDORS & HALLWAYS OF TOTAL AREA	392	25%	of total area
<b>SMALL COLLABORATION SPACES (internal)</b>	<b>560</b>		
MULTIUSE ROOMS NEAR WORKDESKS (1-2 PERSONS, VARIATING USES & FURNITURE TO MATCH USE)	180	40	4,5
SMALL COLLABORATION SPACES NEAR WORKDESK (4-6 PERSON SPACES, VARIATING USES & FURNITURE TO MATCH USE)	240	16	15,0
ESTIMATED PORTION OF CORRIDORS & HALLWAYS OF TOTAL AREA	140	25%	of total area
<b>SUPPORT SPACES (internal)</b>	<b>2253</b>		
SPACES FOR SCAN/COPY/PRINTING, OFFICE SUPPLIES, RECYCLING	380	19	20,0
IT SUPPORT SPACES (IDF ROOMS ETC...)	65	13	5,0
TOILETS, CHANGE ROOMS, WARDROBE, LOCKERS	520	13	40,0
MEDICAL ROOM AND RELAX ROOMS	45		
LOCAL ARCHIVE ROOMS	650	26	25,0
MAIL COURIER ROOM	30		
ESTIMATED PORTION OF CORRIDORS & HALLWAYS OF TOTAL AREA	563	25%	of total area
<b>BASEMENT</b>	<b>1767</b>		
DRESSING AND SHOWERS FOR BIKERS	180		
CLEANING CENTRE	80		
DRESSROOMS FOR CLEANING AND SERVICES	40		
STORAGES	200		
ARCHIVES	100		
WASTE ROOMS	40		
LOADING DOCKS	250		
PARKING FOR 10 CARS IN THE BUILDING	200		

<sup>2</sup> SQM/WORKDESK

PARKING OF BIKES	500		
ESTIMATED PORTION OF TOTAL AREA	177	10%	of total area
<b>OTHER SPACES</b>	<b>230</b>		
NETWORK ROOM	40	2	20,0
TELECOM INFRASTRUCTURE ENTRANCE ROOM 1	10	1	10,0
TELECOM INFRASTRUCTURE ENTRANCE ROOM 2	10	1	10,0
AUDIO VISUAL PRODUCTION STUDIO	50		
GYM	120		
<b>SPACES allowed in the vicinity of the building if not in the building</b>			
CONFERENCE CENTER/MEETING ROOMS			
CAR PARKING FOR STAFF			
<b>OPTIONAL SPACES</b>			
SAUNA	60		
AUDITORIUM	120		



Annex 2 Functional diagram (semi-) public and private/ office areas



ECHA FUNCTION DIAGRAM