

# RENOVATION STRATEGY WHO HEADQUARTERS IN GENEVA



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# DESCRIPTION OF THE WHO GENEVA HEADQUARTERS

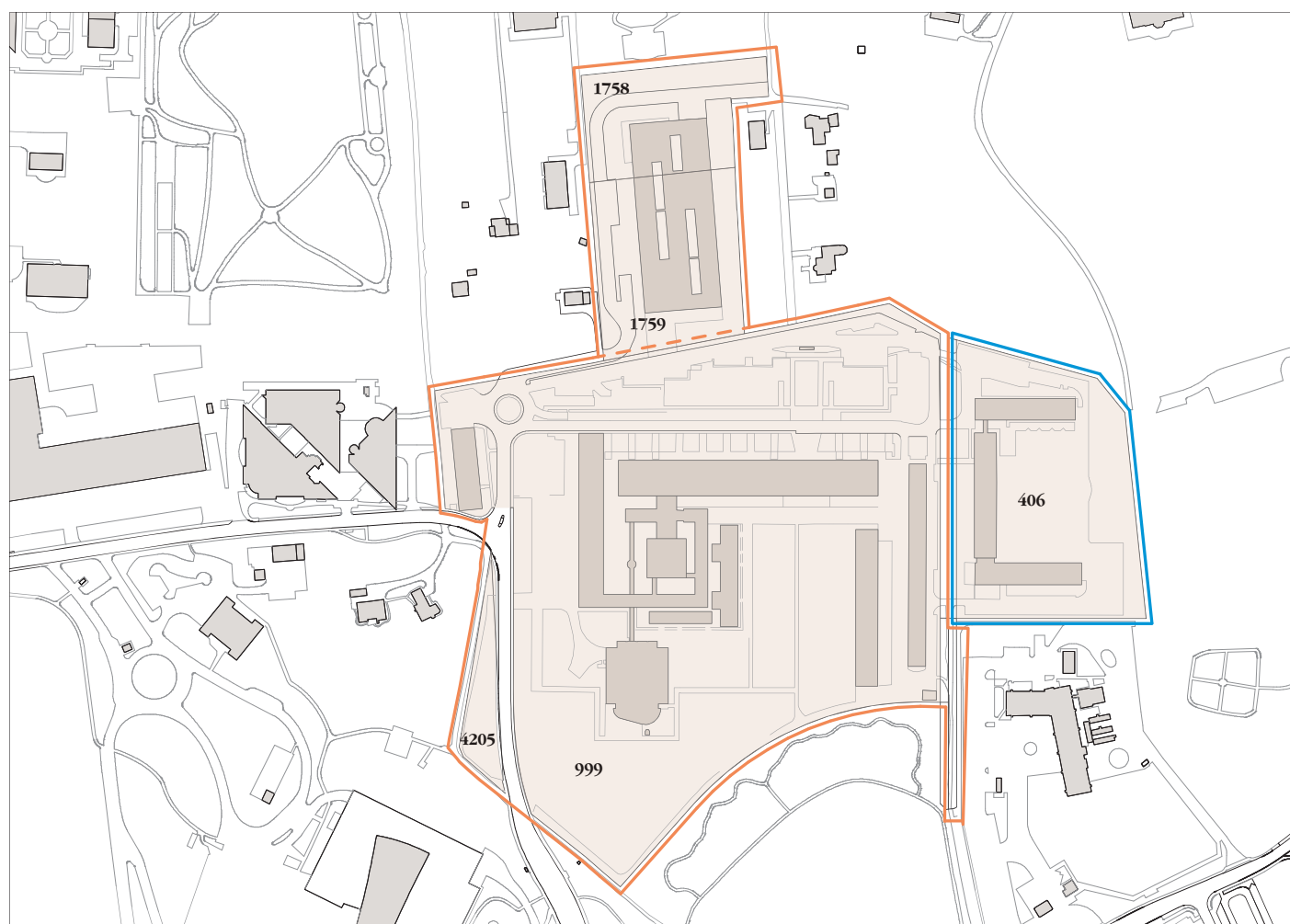
## 1.1

### LAND PLOTS

The Geneva Headquarters of the World Health Organization are established on a piece of land of approx. 100'000 m<sup>2</sup> situated in the community of Pregny-Chambésy, in the middle of the International Organisations district of Geneva. In its direct vicinity are located the International Labour Organisation (ILO), International Committee of the Red Cross (ICRC) and the United Nations of Geneva (UNOG).

The majority of this land on which the Geneva headquarters of the WHO are established, is owned by the State of Geneva, who has made it available free of charge to the World Health Organization for an unlimited period of time. Only land plot N°406 (indicated in blue here below) with a total size of approx. 15'000 m<sup>2</sup> is directly owned by the WHO.

With the exception of land plots 1758 and 1759, the whole site is located in a so-called «Development Zone». This is a zone in which construction is limited primarily to the development of activities linked to the needs of international organizations.



■ Size land plots  
 ■ Canton of Geneva  
 ■ World Health Organization

4205	=	1'685.5 m <sup>2</sup>
999	=	6'571.0 m <sup>2</sup>
406	=	14'966 m <sup>2</sup>
1759	=	8'302.5 m <sup>2</sup>
1758	=	5'768.5 m <sup>2</sup>

Total m<sup>2</sup> = 96'432.5m<sup>2</sup>

## 1.2 BUILDINGS

In 2010 the Geneva WHO Headquarters consist in total of 10 buildings with a total gross floor space area of approx. 100'000 m<sup>2</sup> providing a maximum capacity of nearly 3'000 desks.

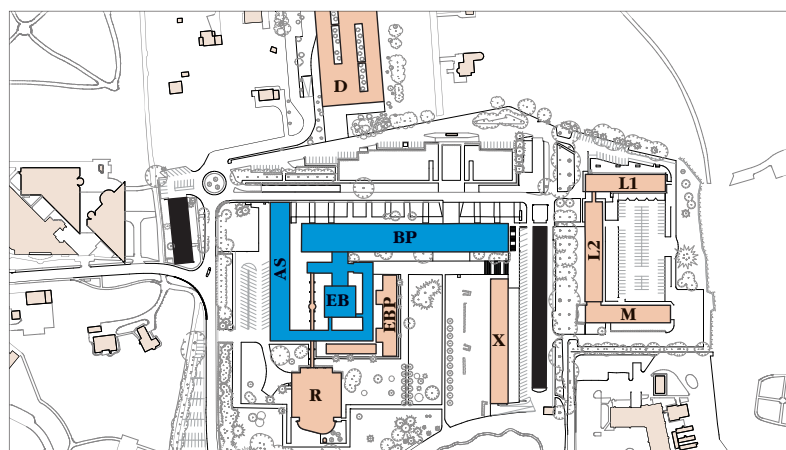
The majority of the workspaces are concentrated in the Main Building. This building was established in 1966 by the renowned architect Jean Tschumi and is today considered as a modern architectural masterpiece. It is also the object of a heritage study.

Over the years, many temporary buildings have been added to the site, offering an additional 1'400 desks, in response to the increasing staffing needs of the organization. These additional buildings were constructed as temporary low-cost structures consisting mostly of prefabricated concrete structures (L1, L2, M V, X and EBP) or stacked container structures (C).

The last addition to the site was made in 2006, with the construction of a state-of-the-art building (D) to house the UNAIDS.

Looking at the site from a real estate perspective, one can conclude that only the Main Building and building D represent an architectural value that is worth preserving. The buildings on land plot 406 (L1, L2 and M) could be considered for renovation. However, given the dilapidated state and the inflexible nature of the prefabricated structure of these buildings, it would require a significant investment to bring the workspace conditions of these offices in line with current office standards. The other buildings on site are of a more temporary nature and consequently do not offer any room for further improvement. Actually, one of these temporary buildings (C) had already to be closed and the others have exceeded their anticipated life span and must soon also be removed.

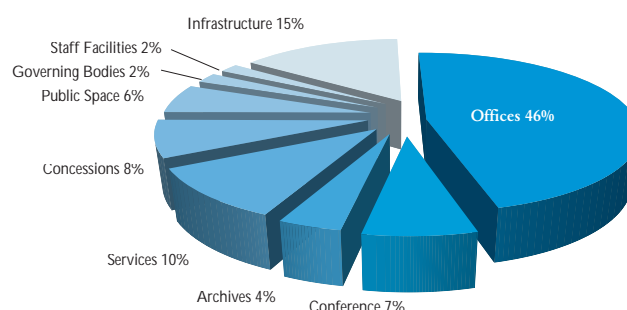
Today, 7 buildings, with a total gross floor area of 94'000 m<sup>2</sup>, are in operation to accommodate the current 2'250 employees working at the WHO headquarters in Geneva. These buildings provide currently in total approx. 2'500 office modules on a net floor area of approx. 30'000 m<sup>2</sup>. The rest of the 60'500 m<sup>2</sup> net floor area is dedicated to auxiliary office services, conference and meeting rooms, staff facilities and public space.



OVERVIEW BUILDINGS HQ GENEVA

	Construction date	Building type	Gross area (m <sup>2</sup> )	Nett area (m <sup>2</sup> )	Total number of office modules	Maximum desk capacity
Main building (BP – AS – EB)	1966	Permanent	42'900	27'236	1254	1'318
V building	1967	Temporary	1'920	1'180	140	140
X building	1972	Temporary	2'772	2'292	157	169
L1 building	1976	Prefabricated	4'794	3'582	213	236
L 2 building	1982	Prefabricated	5'636	5'004	283	314
Restaurant building ( R)	1985	Permanent	2'748	2'158	0	0
M building	1989	Prefabricated	7'510	5'928	318	340
Executive board temporary building (EBP)	2001	Prefabricated	906	725	48	48
C building	2003	Prefabricated	2'442	1'572	132	132
D building	2006	Permanent	27'664	14'245	309	308
TOTAL (10 buildings)			99'292	63'922	2'854	3'005
TOTAL (7 buildings in exploitation today)			94'024	60'445	2'534	2'685

WHO HQ PREMISES INCL. UNAIDS (M<sup>2</sup> NET) - AUGUST 2013



**An important consequence of the historic approach to constructing multiple smaller buildings from a variety of low cost materials (Excluding the Main Building and Building D), is that the cleaning and building maintenance and operating costs have increased significantly with each addition.**

## 1.3

## TECHNICAL ANALYSIS STATE OF THE BUILDINGS

In the context of the Capital Master Plan, set up to oversee the decennial budgets required to maintain the premises of the WHO worldwide, several technical diagnostic studies were commissioned over the period 2008–2010 to measure the status of the HQ buildings in Geneva.

These studies showed that the installations and structural elements of the Main building are after more than 40 years arriving at the end of their lifecycle.

Most alarmingly it revealed that the HVAC systems (Heating, Ventilation and Air-Conditioning) were in need of replacement (*risk of failure*), that the sanitary pipes showed severe signs of corrosion (*risk of water damage & sewage leakage*), and that the fire protection systems and electricity cabling were no longer in line with the applicable norms and regulation (*safety risks*). In addition, the report revealed the existence of *asbestos* in the façade of the main building. Although, the latter does not constitute an immediate health risk for the occupants of the building, special protection measures have to be taken into consideration in case of any repair or renovation works.

As such defaults could endanger the business continuity of the WHO activities in the Geneva HQ, an action plan was put into place in 2010 aiming to treat the different problem areas. The project related to a partial renovation of the Main Building, limited to 7 floors, was first estimated at 87 million USD.

Some of the most urgent parts of these works, which consisted of making the Main Building compliant with all applicable Fire and Safety Regulations, has been executed. This included enhancing the integrity of fire compartments within the main building structure, updating emergency signage, installing fire doors to emergency exit routes and elevators, installing equipment to pressurize vertical emergency exit routes and installing horizontal emergency exit routes. More safety and security work is required to the basements in the main building as well as all other buildings on the compound.

Considering that the Main building contains asbestos, it was proposed that most of the works would be performed in a phased floor-by-floor manner in order to evacuate the floors but guarantee the business continuity of the WHO. Such renovation process would require the temporary relocation of 260 employees per phase. The total duration of this partial renovation work was estimated to take 10 years.

In 2012 the practicality and cost efficiency of this approach was challenged, giving way to a comprehensive strategy to address the site needs over the next 40 years.



Induction units  
in the offices



Water pipes



Isolation material

# 2

## PROJECT HISTORY

### 2.1

#### ALTERNATIVE BUSINESS CASE: GLOBAL SITE OPTIMIZATION ANALYSIS (2012)

As the execution of the first phase of the urgent works proved to be very slow and difficult to complete, resulting from the constraints of conducting construction works in an occupied building, it was decided that a full 10-year renovation program for the rest of the upkeep works on a floor-by-floor basis would heavily disrupt the normal HQ activities and present serious risks to the on-site business continuity.

Considering in addition the importance of the amounts to be spent on basic upkeep works required on the HQ site in Geneva, which would not generate any long-term benefits in terms of improved working conditions and/or reduced exploitation costs, an alternative strategic real estate study was investigated. The emphasis of this study laid in the optimization potential of the long-term return on investment by reducing the ecological footprint of the entire HQ site while striving to minimize the disturbance on the business continuity of the WHO operations.

The study compared 4 alternative renovation strategies against the basic upkeep scenario previously described. The report demonstrated that while the initial investment cost of the basic scenario is limited, the long-term operational expenses for energy consumption and maintenance remain extremely high.

**The analysis showed that it would be possible to reduce the energy consumption of the HQ site in Geneva of 8.25 Kwh/year to potentially 3.37 Kwh/year by investing more in high quality long-term energy efficient solutions, which would consequently result in potentially important cost savings in the HQ operating budget over the next 40-year lifecycle.**

As such, the report propose 4 alternative renovation options, all based on a one-shot renovation approach of the main building instead of the floor-by-floor approach in order to limit disruption on site to a strict minimum. However, this means a solution would have to be sought for the employees during the renovation of the Main building. The study is using a theoretical relocation need of approx. 1'200 employees working in the Main Building and focused on 3 different approaches.

As the table below outlines, option 1 gives, notwithstanding a higher initial investment amount of CHF 250 million, the best return on investment. Not only in terms of building quality and project duration, but also in terms of long term financial benefits. Being a much more energy-efficient construction, this option provides the opportunity to reduce the operating cost of the Geneva Headquarters with approx. CHF 60 million over the next 40 years. In addition, as this option consists in the centralization of the workspaces into a limited amount of buildings, it creates the possibility to sell off or lease land plot N°406 to a third party investor. Based on an independent valuation study from Wüest & Partner, the potential land value of this plot is estimated between CHF 40 and CHF 80 million, depending on the anticipated development program of a third party investor. *See section 4.3 for more details.*

#### STRATEGIC REAL ESTATE ANALYSIS CSD

	Actual situation (2012)	Basic scenario	option 1	option 2	option 3	option 4
Number of buildings at completion	10	8	3	7	7	7
Surface area (m <sup>2</sup> )	97'517	94'691	91'289	92'249	92'249	92'249
Maximum desk capacity	3'005	2'732	2'641	2'600	2'600	2'860
Electrical consumption (Kwh/year)	8.249 million	7.820 million	3.372 million	4.210 million	4.210 million	4.341 million
total project duration		20 years	10 years	10 years	9 years	12 years
Duration of building work		20 years	8 years	8 years	8 years	9 years
Investment (CHF)		155'500'000	250'000'000	150'600'000	137'200'000	161'100'000
Operating & maintenance costs (40 years)		383'300'000	323'100'000	377'200'000	382'400'000	383'100'000
Costs of personnel moves		7'000'000	4'900'000	3'500'000	3'500'000	3'400'000
Property costs (temporary office lease)		-	-	11'400'000	22'800'000	11'400'000
Property income (Sale of land plot 406)		-	43'000'000			
Cumulated Cash flow over 40 years (CHF)		545'800'000	535'000'000	542'700'000	545'900'000	559'000'000

**The first approach** offered a long-term solution providing the same amount of desks on site, but located in high quality and modern office buildings offering more flexible office space. This approach therefore focuses on maintaining Building D (300 desks), creating a new building of approx. 1'100 desks and undertaking the complete renovation of the Main Building (1'300 desks) (option 1). This option would allow upon completion, the demolition of all the temporary and prefabricated constructions, made redundant with the construction of the New Building. Consequently, the total number of buildings in exploitation would be brought down from 10 to 3, which would allow WHO to capitalize on the implementation of a holistic computerized building management systems to enhance the energy performance and reduce overall maintenance. In addition, this option liberates the L & M buildings on land plot 406, and consequently opens up the possibility of a potential sale of the land upon completion of the works in order to co-finance the renovation.

**The second approach** was a more short term cost driven one, and seeking temporary relocation possibilities for the employees working in the main building. Taking into consideration that the current HQ facilities can absorb the temporary relocation of approx. 600 employees, the other options (2 and 3) consist of finding a solution for the remaining 600 employees to be relocated during the renovation of the main building, by creating either another temporary building and/or lease temporary office space on the market outside the campus. In addition to the additional letting fees to be taken into consideration, this option also requires the demolition or future maintenance of an additional temporary structure upon completion of the renovation, and therefore does not contribute to the overall objective of streamlining the long-term HQ exploitation budget.

**The last scenario** based on a phased renovation approach of the Main Building taking on 2 floors at a time, which would greatly disrupt the daily business operation of the organisation. To make this scenario work, the elevation of the L & M buildings is proposed in order to create 260 additional desks to accommodate the relocation of the employees in during the different stages of the renovation works



## 2.2

### FEASIBILITY ANALYSIS (2013)

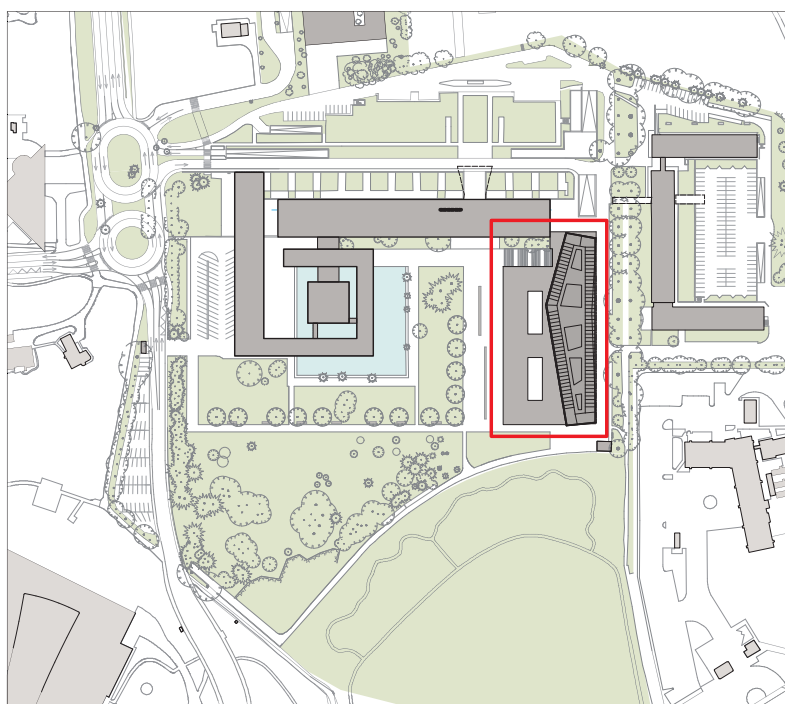
Based on the conclusion of the site wide analysis, a feasibility study was conducted by LRS Architects & Urbanisme in 2013 to determine the feasibility and the best location on site to construct a new building of approx. 25'000 m<sup>2</sup> gross floor area. After careful consideration of the on-site mobility, accessibility, connexion potential with the existing buildings, panoramic views and integration with the landscape, it was concluded that the best location to develop the additional office building would be in the northeast side of the perimeter.

This location provides an easy access to the parking and existing road structure, easy integration into the existing security system of the perimeter and offers good connexion possibilities with the main building. It also respects the quality of the landscape, the panoramic views of the surrounding buildings and maintains the central position of the Main Building on the site.

In addition, it provides a simple phasing of the construction works, estimated to last approximately 8 years.

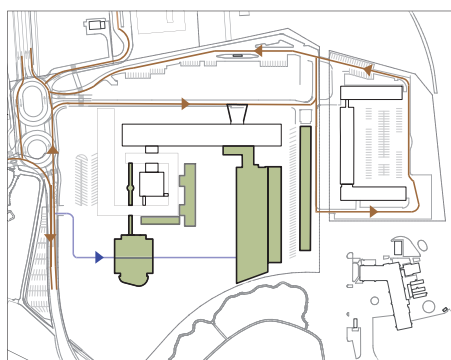
In a first stage, buildings C and X will be demolished during which phase all employees will have to be relocated in one of the following buildings (Main building, L1, L2, M and D).

In a consecutive stage the new building could be constructed over an estimated period of 2–3 years.

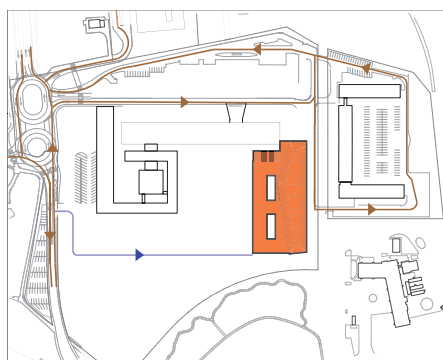


After this period, the Main building would be vacated and employees relocated into the new building, enabling the total renovation of the Main building, also estimated to take approx. 2–3 years. Simultaneously, the existing restaurant R would be closed and demolished, as the new restaurant will be operational in the New Building.

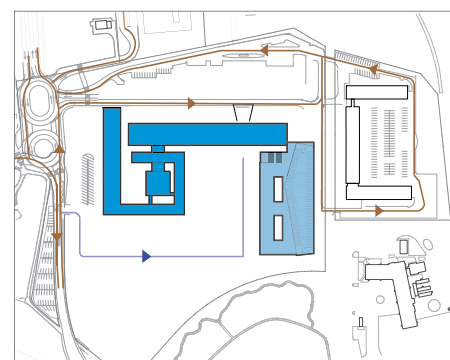
PHASE 1: DEMOLITION



PHASE 2: DEVELOPMENT NEW BUILDING



PHASE 3: RENOVATION MAIN BUILDING



## 2.3

### ARCHITECTURAL DESIGN COMPETITION (2014–2015)



After having obtained the preliminary approval from the Health Assembly in May 2014 for the above-described strategy, an Architectural Design contest was underwritten in cooperation with the State of Geneva in order to determine the design, scope and size of the final project.

The object of the competition was the design of an energy-efficient and low-maintenance extension of the WHO headquarters, providing at least 770 work places within a gross floor area between 22'000 and 25'000 m<sup>2</sup> and an underground parking of 500 to 700 parking spaces. In addition, the program should also foresee:

- a reception, exhibition and entertaining spaces of at least 500 m<sup>2</sup>,
- a modular conference space for 650 participants, 4 meeting rooms for 15–25 people, 5 meeting rooms for 30–40 people all equipped with the latest video-conference technology,
- a new restaurant with 450 seats,
- a «SHOC room» area,
- archives and technical rooms.

The competition was organised as an anonymous open

procedure in 2 stages in accordance with the procedures for awarding contracts for architectural services laid down by the Swiss Society of Engineers and Architects (SIA).

Of the more than 250 subscriptions, 13 candidates were invited to take part and develop their ideas further in a second round. The winning project, called Yin Yang from the Zurich based architect Berrel Berrel Kräutler AG, was selected as the most suitable design, on the 18th of March 2015.

The project consists of a square 9-storey office tower developed around an open atrium, permitting plenty of natural daylight to all areas. The chosen building materials comply with the highest Swiss standards of energy performance (Minergie-P label).

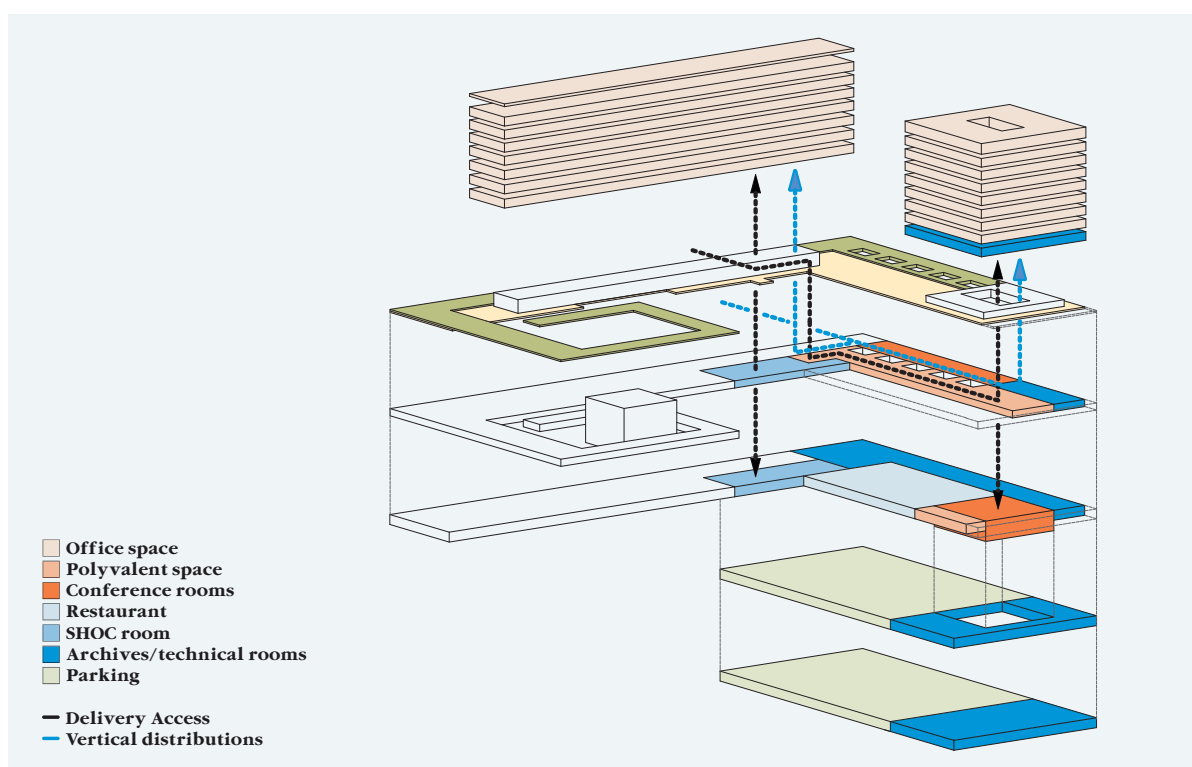
#### **In total, the project offers:**

- 12'100 m<sup>2</sup> of flexible offices space in the upper floors to accommodate the requested 770 desks;
- A semi- underground base structure of 2 levels connected to the Main Building, which will foresee in approx. 8'000 m<sup>2</sup> of support facilities, such as a restaurant, conference and polyvalent rooms, and a strategically located SHOC-room in the middle between both buildings;
- 3'500 m<sup>2</sup> of archive space, and
- An underground parking consisting of 2 underground levels for 462 places in total.





The staffing requirements of the WHO headquarters in Geneva have been revised downwards since 2012, and projections are limited to max 2'400 employees (hence the revised additional need of 770 desks in addition to the Main Building and Building D).



## 2.4

### CONCLUSION

As a result, to undertake the much-needed renovation of the entire HQ premises of the WHO in Geneva, the strategy for the global renovation is based on two consecutive phases; phase I – Construction, phase II – Refurbishment. Combined these phases will take in total 9 years to execute. Both projects being implemented by a core team of professionals.

#### HQ GENEVA RENOVATION STRATEGY

##### PHASE 1

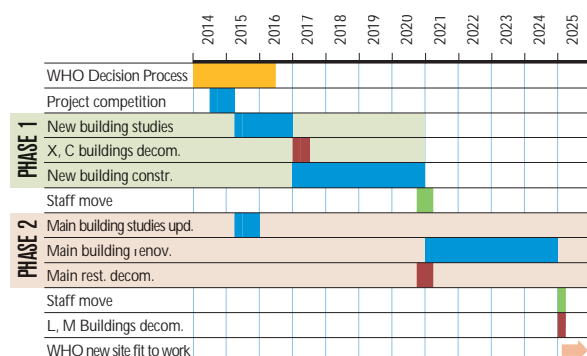
Construction of  
New Building

##### PHASE 2

Renovation of  
Main Building



#### TIMELINE



The aim of the entire HQ renovation strategy (phase 1 and 2) is:

- To become more cost efficient, both in terms of energy performance and operational management. As such, the new building and the renovation of the main building will therefore subscribe to:
  - (i) A modular office concept with collaborative workspaces aiming to reduce the floor area of the existing facilities by enhancing the interior organisation of the facilities. As a result, the total amount of workspace is estimated at 2'400 desks, but will be flexible to accommodate future staff requirements of the WHO at headquarters.
  - (ii) An integrated state-of-the-art Heating, Ventilation and Air-conditioning System that will apply modern Building Information Models.
- To offer adequate meeting and conference space to meet the demand for external meetings each year, in addition to the many internal meetings. As such, the space dedicated to meeting- and conference rooms is slightly increased with the creation of a SHOC- room. In addition, the proposed renovation project enables the consolidation of all meeting facilities in closer proximity to each other. As the new meeting facilities will also subscribe to a modular concept, greater flexibility in terms of organisation is achieved.

As the table below outlines, this consolidation results in total in a 5% reduction of the total available net floor area.

Over the next few months, WHO will engage in parallel the fine-tuning of the development cost and obtain the necessary construction permits. For the latter, they will work together with the winning architect team of the competition.

#### OVERVIEW BUILDINGS HQ GENEVA (M<sup>2</sup> OF NET FLOOR AREA)

	Current situation	Remaining after demolition temporary buildings	Min. Requirements New Building	Projected situation
Offices	29'080	18'666	8'620	27'286
Conference And Meeting Rooms	4'592	3'519	2'520	6'039
Archives	2'589	996	790	1'786
Printing Services / Stationary	6'616	4'181	340	4'521
Concessions / Restaurant	4'812	1'789	2'070	3'859
Common Space	3'764	3'619	500	4'119
Gov. Body / Shoc	1'299	1'182	850	2'032

# 3

## DEVELOPMENT COST

### 3.1

#### PHASE 1: CONSTRUCTION OF THE NEW BUILDING

Based on a first cost estimate in 2013 by LRS Architecture & Urbanisme, the construction cost for the development of an additional office building with a total of approx. 25'000 m<sup>2</sup> gross floor area was estimated at CHF 140 million (-/+15%).

This cost estimate includes next to the actual construction cost of the new building also the related preliminary geotechnical studies and site preparation works such as the demolition of the 3 existing temporary structures

This initial cost estimate was given as a main guideline to all projects submitted in the Architectural Competition, and the project team and architect of the winning project believed that by working with a general contractor the actual construction price can be optimized within the scope of the budget.

### 3.2

#### PHASE 2: RENOVATION OF THE EXISTING MAIN BUILDING

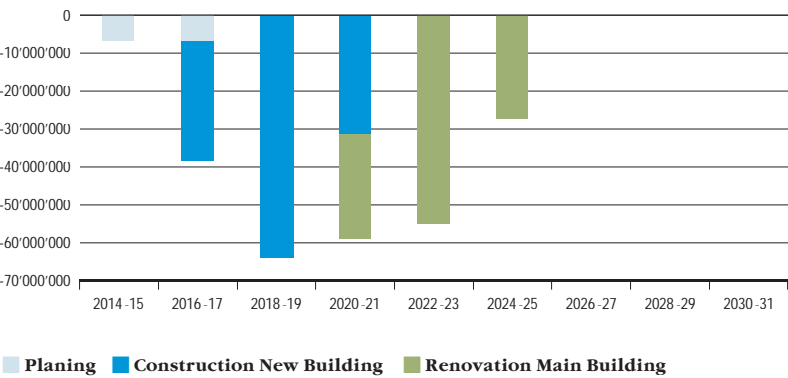
The cost for the complete renovation of the Main Building is estimated by DMA architects at CHF 110 million. In this budget it is foreseen to replace and optimize the entire HVAC system, to renovate and increase the energetic performance of the buildings' envelope and to replace the electricity and sanitary pipes. These figures will be qualified in parallel with the new building studies to avoid gaps and duplication.

### 3.3

#### ESTIMATED TOTAL DEVELOPMENT COST

The total development cost is estimated at CHF 250 million. Considering the early stage of the project, this budget is still subject to a contingency of +/- 15%.

The majority of these costs will be spent in the period 2018–2023, during which there will be a financing requirement of approx. CHF 30 million on average per year.



# PROPOSED FINANCING STRUCTURE

## 4.1

### AN INTEREST FREE LOAN FROM THE HOST STATE

The proposed Financing Structure for the Total Estimated Development Cost of CHF 250 million is based on 3 pillars:

- **An interest-free loan from the Host State** which finances 100% of the costs related to the construction of the New Building, estimated at CHF 140 million and shall be repayable in equal instalments over a 50-year period.
- The proceeds of the **sale or lease of land plot** N° 406, currently accommodating buildings L1, L2 and M), estimated at minimum CHF 43 million.
- The allocation of resources made available in the **WHO Real Estate Fund**, for the purpose of financing the major renovation project.

Considering that land plot 406 can only be sold after the completion of the entire HQ renovation project in 2024–2025, the WHO Real Estate fund will pre-finance 100% of the total renovation cost of the Main Building, estimated at CHF 110 million.

The following sections describe each financing pillar more in detail.

*The financial analysis is based on an exchange rate of 1 CHF=1 USD, for ease of reference. (For information purposes, the spot rate on 30.03.2015 was 1 CHF=1.03 USD)*

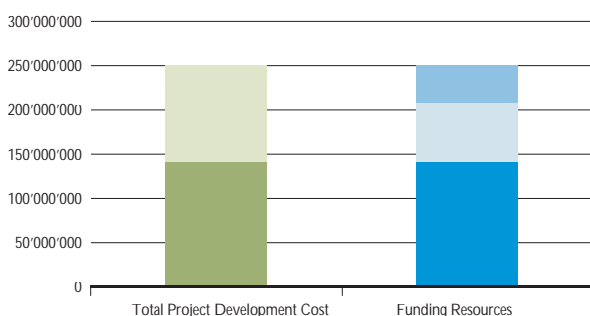
The first phase of the project, consisting in the development of a New state-of-the-art office building and the demolition of all temporary building structures on site, is proposed to be integrally financed by an interest free loan from the Host State, repayable on 50 years.

The exact loan amount will correspond to the actual construction budget, but has in the meantime already been preliminary agreed upon at CHF 140 million. The exact cost related to the construction of the New Building will be further defined over the next few months based on the plans of the winning project from the Architecture & Design Competition.

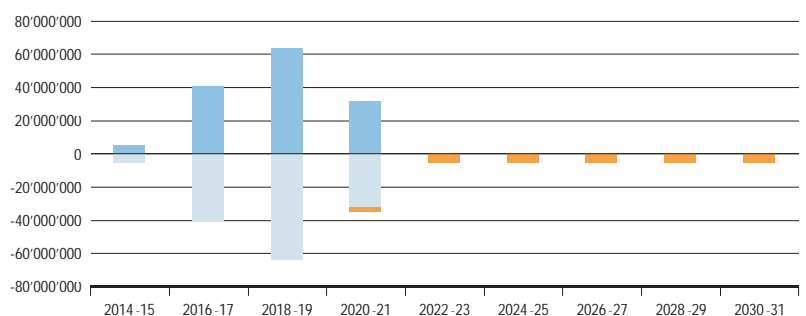
The Swiss Authorities have agreed in February 2014 the release of an advance payment equal to 10% of the interest-free loan (CHF 14 millions) in order to support the planning phase associated with the construction of the new building. This advance payment has already been partially allocated to the financing of the Architecture & Design Competition and preliminary studies.

As demonstrated in the graph below, the construction of the New Building for CHF 140 million will consequently not have an immediate impact on the available resources of the WHO. The Real Estate Fund will be drawn upon as from 2021 to cover the annual interest-free loan repayments of CHF 2.8 million per year, corresponding to CHF 5.6 million per budget period (indicated in orange).

Considering that the final loan amount will be set in accordance with the actual construction cost of the New Building, the risk of cost overruns is relatively limited, on the condition that the works are executed on the basis of a fix price general contractor agreement as planned.



■ Construction New Building  
■ Renovation Main Building  
■ Interest-free Loan  
■ WHO Real Estate Fund  
■ Sale of land plot 406



■ Interest free Construction Loan  
■ Construction New Building  
■ Repayment Swiss Loan New Building

## 4.2

## ALLOCATION OF THE FUNDS AVAILABLE UNDER THE REAL ESTATE FUND

The second phase of the project, being the actual renovation of the existing Main building, is proposed to be integrally financed from the Real Estate Fund which will be funded based on the sustainable financing mechanism agreed upon in the 63rd Health Assembly in 2010, in the form of:

- An annual allocation of USD 7.5 million or USD 15 million per budget period of 2 years, corresponding to the real estate component of the post occupancy

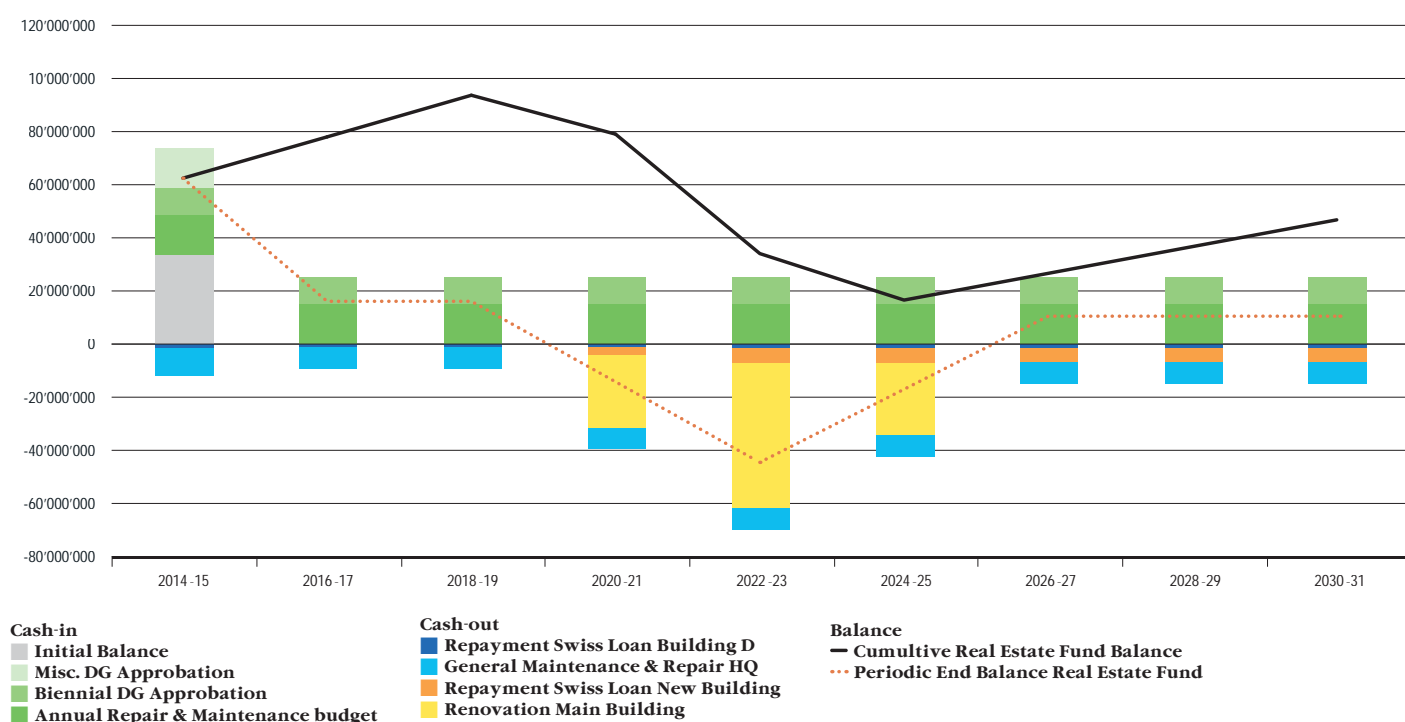
charge, set in function of the combined insured building value of all WHO premises, and

- An appropriation of USD 10 million made available by the Director-General at the end of each budget period from the Member States' non-assessed income.

As a result, this funding mechanism of the Real Estate Fund results in a stable cash flow of USD 25 million per budget period (2 years), part of which can be applied to the financing of the renovation of the Geneva headquarters.

## CASH FLOW PROJECTIONS WHO REAL ESTATE FUND (USD)

	2014-15	2016-17	2018-19	2020-21	2022-23	2024-25	2026-27	2028-29	2030-31	Totals
<b>Cash-in</b>	<b>33'773'522</b>	<b>40'000'000</b>	<b>25'000'000</b>	<b>25'000'000</b>	<b>25'000'000</b>	<b>25'000'000</b>	<b>25'000'000</b>	<b>25'000'000</b>	<b>25'000'000</b>	<b>273'773'522</b>
A. Real Estate Fund (USD)	33'773'522	40'000'000	25'000'000	25'000'000	25'000'000	25'000'000	25'000'000	25'000'000	25'000'000	273'773'522
Initial Balance	33'773'522									33'773'522
Annual Repair & Maintenance Budget		15'000'000	15'000'000	15'000'000	15'000'000	15'000'000	15'000'000	15'000'000	15'000'000	135'000'000
Biennial DG Appropriation		10'000'000	10'000'000	10'000'000	10'000'000	10'000'000	10'000'000	10'000'000	10'000'000	90'000'000
Misc. DG Appropriation		15'000'000								15'000'000
<b>Cash-out</b>	<b>-</b>	<b>11'809'000</b>	<b>9'360'000</b>	<b>9'360'000</b>	<b>39'660'000</b>	<b>69'960'000</b>	<b>42'460'000</b>	<b>14'960'000</b>	<b>14'960'000</b>	<b>227'489'000</b>
A. Annual WHO Maintenance & Repair budget (USD)		10'449'000	8'000'000	8'000'000	8'000'000	8'000'000	8'000'000	8'000'000	8'000'000	74'449'000
B. Existing HQ buildings (CHF/USD)	-	-	-	-	27'500'000	55'000'000	27'500'000	-	-	110'000'000
Main Building renovation					27'500'000	55'000'000	27'500'000			110'000'000
C. Construction Loans (CHF/USD)	-	1'360'000	1'360'000	1'360'000	4'160'000	6'960'000	6'960'000	6'960'000	6'960'000	43'040'000
Repayment Swiss Loan new building					2'800'000	5'600'000	5'600'000	5'600'000	5'600'000	30'800'000
Repayment Swiss Loan building D		1'360'000	1'360'000	1'360'000	1'360'000	1'360'000	1'360'000	1'360'000	1'360'000	12'240'000
<b>Period balance</b>	<b>28'191'000</b>	<b>15'640'000</b>	<b>15'640'000</b>	<b>15'640'000</b>	<b>14'960'000</b>	<b>14'960'000</b>	<b>10'040'000</b>	<b>10'040'000</b>	<b>10'040'000</b>	<b>46'284'522</b>
<b>Cumulative Balance</b>	<b>61'964'522</b>	<b>77'604'522</b>	<b>93'244'522</b>	<b>78'584'522</b>	<b>33'624'522</b>	<b>16'164'522</b>	<b>26'204'522</b>	<b>36'244'522</b>	<b>46'284'522</b>	





## 4.3

### REVENUES FROM THE SALE OF LAND PLOT 406

As the WHO Real Estate Fund is an instrument that is used for the financing of all WHO real estate worldwide, its financing capacity is being analysed from a global perspective in the table here below and consequently considers:

#### 1. On the funding income side:

- The balance of the Real Estate Fund at the end of 2013, net of approved projects being implemented was USD 33 million,
- The miscellaneous appropriation of USD 10 million by the Director-General at the end of each financial period,
- The new anticipated income of USD 15 million during each budget period.

#### 2. On the funding expenses side:

- A budget of CHF 8 million per budget period to cover the overall expenses for maintenance and repair of all WHO sites worldwide (1% of the insured value of properties),
- The cost for the renovation of the Main Building in the amount of CHF 110 million,
- The repayment of the Swiss Loans related to the construction of the existing D building (CHF 1.36 million) and the future New Building (CHF 5.6 million) per budget period.

Considering that the Real Estate fund will have to pre-finance the renovation cost of the Main building pending the proceeds of the sale of the land upon completion, the above table and below graph demonstrate, that this financing mechanism allows for the biennial budget of USD 8 million destined for the overall maintenance and repair of all WHO owned real estates and financing for the renovation works.

After 2025, the financing need from the Real Estate Fund reassessed in the context of other renovation projects within the scope of the WHO Capital Master Plan. The above cumulative financing proposal includes a contingency of approx. CHF 16 million in the period 2024–2025 that could be used to cover any potential variances or currency exchange fluctuations. In a worst-case scenario, the biennial budget of USD 8 million destined for overall maintenance & repair of WHO premises, provides another supplementary buffer to cover any unforeseen costs including provision for HQ buildings.

A last financing mechanism consists in the sale of land plot N°406 after the realization of the entire renovation project in the period 2024-2025. As the HQ project foresees the centralization of all work spaces in 3 state-of-the-art buildings, the remaining prefabricated buildings L1, L2 and M on land plot N° 406 will be made redundant and could consequently be considered for sale to a third party.

An independent valuation study from Wüest & Partner has identified the following sales strategies in the context of the renovation strategy:

- An immediate sale of the existing buildings L1, L2 and M in their current state, the market value is estimated at CHF 36.3 million, on the condition that the WHO would underwrite a fixed 8-year term lease at market conditions to house their employees during the renovation and construction works of the Main and New building.
- However, considering that the land is located in a Development Zone, it offers an interesting densification potential. An urban development study has indicated that a land use ratio between 2.3 and 3.5, equal to a building of 34'000 to 65'000 m<sup>2</sup> GLA, could be envisioned on this location. The only limitation for a third party investor is that the affectation of the development should be primarily dedicated to activities related to the international organisations. In a scenario of a freehold sale, this would enable the WHO to sell the land plot after completion of their project at an estimated value between CHF 40 million and CHF 80 million depending on the final project plans (freehold scenario).
- An alternative scenario, could consist in setting up a leasehold structure, in which the WHO would make the land available after the completion of their project to a third party investor in return for an annual leasehold fee of approx. CHF 2 million per year over a 99 year period.

In this financial analysis, the scenario of a freehold sale of the land after completion of the project has been retained. Based on a conservative approach, this results in a potential cash inflow of approx. CHF 43 million in 2024–2025. The proceeds of this sale would consequently be reinvested into the Real Estate Fund.

## 4.4 CONCLUSION

Combining all 3 elements, this results in the below described financing scheme over the next 18 years (based on an exchange rate of 1 CHF = 1 USD, for ease of reference):

Taking the above elements into consideration and including the timeline of the renovation project, it has been demonstrated that:

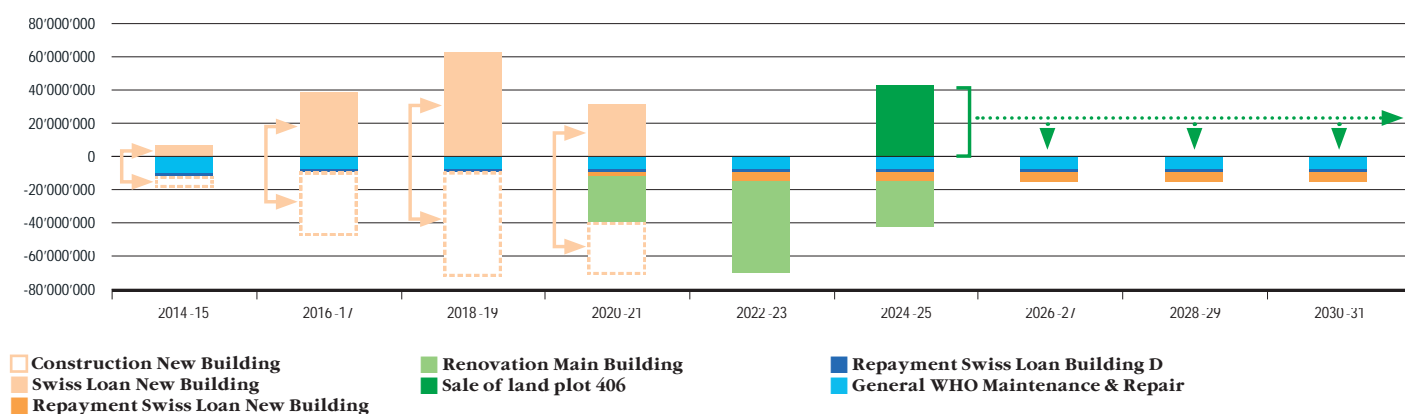
- 1 It is imperative that the existing and future resources of the Real Estate Fund remain allocated to the Real Estate Fund for the renovation project of the Geneva headquarters for at least the next 5 consecutive budget periods.
- 2 The construction budget of the new building will be entirely covered by a long-term interest free loan

from the Host State, repayable on 50 years. The annual loan reimbursements of 2.8 million are to be financed from the Real Estate Fund.

- 3 In the long term, the financing of the repayments of the existing Swiss loan related to the construction of Building D (CHF 1.36 million) and the New Building loan (CHF 2.8 million) will be paid from the biennial allocation to Real Estate Fund.
- 4 The proceeds from the sale of the land should be allocated to the Real Estate Fund in 2024–2025 to partially fund the renovation of the new building.
- 5 On the condition that the current funding mechanism of the Real Estate Fund is maintained and resources are allocated to the HQ project over the next 5 budget periods, the proposed financing mechanism of the HQ renovation project offers a buffer of approx. CHF 16 million in the period 2024–2025, which represents a contingency of 15% on the Estimated renovation cost of CHF 110 million.

### CASH FLOW PROJECTIONS (USD)

		2014-15	2016-17	2018-19	2020-21	2022-23	2024-25	2026-27	2028-29	2030-31	Totals
<b>Income</b>											
A. Real Estate Fund (USD)	33'773'522	40'000'000	25'000'000	25'000'000	25'000'000	25'000'000	25'000'000	25'000'000	25'000'000	25'000'000	273'773'522
Initial Balance	33'773'522										33'773'522
Annual Repair & Maintenance Budget		15'000'000	15'000'000	15'000'000	15'000'000	15'000'000	15'000'000	15'000'000	15'000'000	15'000'000	135'000'000
Biennial DG Appropriation		10'000'000	10'000'000	10'000'000	10'000'000	10'000'000	10'000'000	10'000'000	10'000'000	10'000'000	90'000'000
Misc. DG Appropriation		15'000'000									15'000'000
B. Swiss Loan (CHF/USD)	-	7'000'000	38'500'000	63'000'000	31'500'000	-	-	-	-	-	140'000'000
Swiss Loan Studies		7'000'000	7'000'000								14'000'000
Swiss Loan Construction			31'500'000	63'000'000	31'500'000						126'000'000
C. Sales Proceeds (CHF/USD)		-	-	-	-	-	43'000'000	-	-	-	43'000'000
Building M & L Sale							43'000'000				43'000'000
<b>Total Income</b>	<b>33'773'522</b>	<b>47'000'000</b>	<b>63'500'000</b>	<b>88'000'000</b>	<b>56'500'000</b>	<b>25'000'000</b>	<b>68'000'000</b>	<b>25'000'000</b>	<b>25'000'000</b>	<b>25'000'000</b>	<b>456'773'522</b>
<b>Expenditures</b>											
A. Existing HQ buildings (CHF/USD)	-	1'360'000	1'360'000	1'360'000	28'860'000	56'360'000	28'860'000	1'360'000	1'360'000	1'360'000	122'240'000
Main Building renovation					27'500'000	55'000'000	27'500'000				110'000'000
Repayment Swiss Loan building D		1'360'000	1'360'000	1'360'000	1'360'000	1'360'000	1'360'000	1'360'000	1'360'000	1'360'000	12'240'000
B. Construction New Building (CHF/USD)	-	7'000'000	38'500'000	63'000'000	34'300'000	5'600'000	5'600'000	5'600'000	5'600'000	5'600'000	170'800'000
Main Building Studies		7'000'000	7'000'000								14'000'000
New Building Construction			31'500'000	63'000'000	31'500'000						126'000'000
Repayment Swiss Loan new building					2'800'000	5'600'000	5'600'000	5'600'000	5'600'000	5'600'000	30'800'000
C. Annual WHO Maintenance & Repair budget		10'449'000	8'000'000	8'000'000	8'000'000	8'000'000	8'000'000	8'000'000	8'000'000	8'000'000	74'449'000
<b>Total Expenditures</b>	<b>-</b>	<b>18'809'000</b>	<b>47'860'000</b>	<b>72'360'000</b>	<b>71'160'000</b>	<b>69'960'000</b>	<b>42'460'000</b>	<b>14'960'000</b>	<b>14'960'000</b>	<b>14'960'000</b>	<b>367'489'000</b>
Period balance		28'191'000	15'640'000	15'640'000	(14'660'000)	(44'960'000)	25'540'000	10'040'000	10'040'000	10'040'000	89'284'522
Cumulative Balance		61'964'522	77'604'522	93'244'522	78'584'522	33'624'522	59'164'522	69'204'522	79'244'522	89'284'522	



# 5 GOVERNANCE

To ensure maximum benefits are drawn from the relevant experience of other Geneva-based United Nations entities, notably ILO, WIPO, WTO and the United Nations office at Geneva, WHO continue to work closely with the project teams and participate in regular meetings concerning the recent and ongoing construction and renovation projects. This collaboration will be strengthened throughout the life of the project.

Clear lessons learned from other big projects recently implemented by International Organisations indicate thorough planning and comprehensive studies during the very early stages of a project are a prerequisite in order to assess the budget and manage the final cost. While such planning is essential it must be supported with meticulous oversight and tight controls on project scope, with timely and responsive project management.

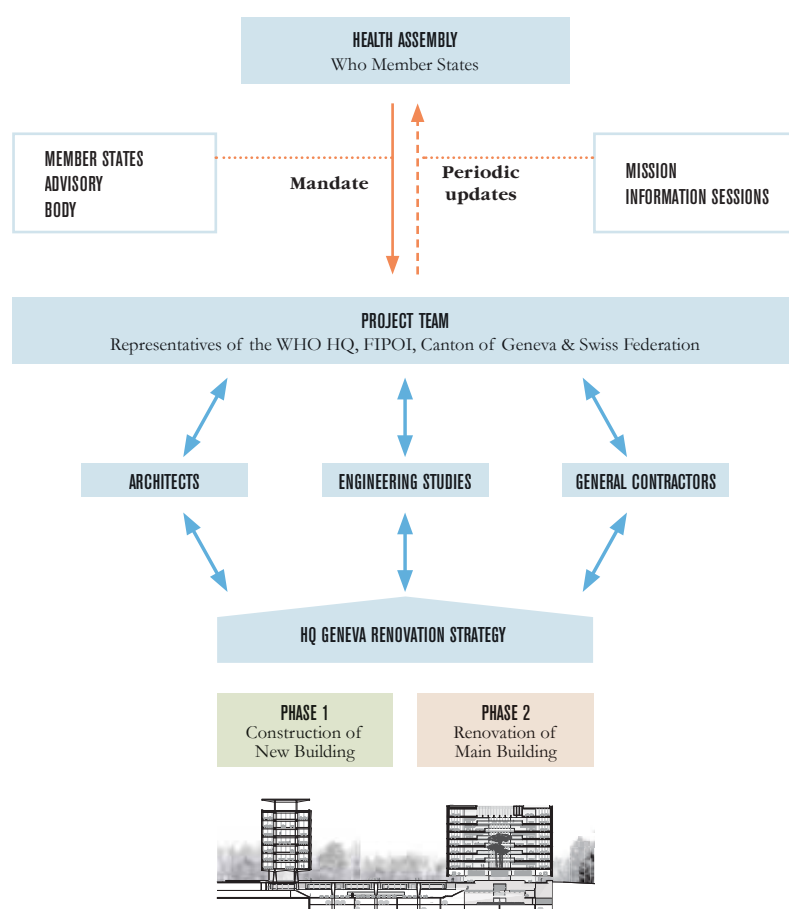
A project team consisting of representatives from the WHO headquarters in Geneva and the Swiss administrative organs, including representatives of the Canton of Geneva, Swiss Federation and the Foundation for Buildings for International Organisations (FIPOI) will continue, with a direct and hands-on approach in order to manage and control the cost and timing aspects of the project as efficiently as possible.

The project team has been coordinating and contracting the necessary studies to develop this renovation strategy and address all the requirements pertaining to the HQ site. It was through this team the site-wide comprehensive renovation has been determined as the most cost effective solution both in the short and long terms, rather than piece by piece renovation of the site.

As we enter a more critical phase, it is proposed to strengthen the governance model with the introduction of a member state advisory group, established soon after the WHA68. The group will comprise of one or two regional representatives based in Geneva, nominated through respective mission focal points. Terms of reference for the group are being developed. The group will meet on a regular basis to review the project progress and provide advice and guidance particularly on issues that directly impact the scope, the

cost and the timeline of the project. In addition, routine progress reports will be made available to the WHA and regular information session provided to missions in Geneva.

## Governance Structure:



This governance structure is based on the Project Team steering and operating within the project scope and mandate. The Project Team will report on a regular basis on the evolution of the project to the advisory group as well as to the PBAC, EB and World Health Assembly, ensuring prompt information exchange and decision making.

Any significant deviation to the scope of the project or the financing structure, in terms of cost overruns or timings, will be signalled immediately.

# 6 SUMMARY

## HQ GENEVA

- 10 buildings, all at the end of their normal life cycle span, requiring significant investments to remain operational and in line with all applicable Fire & Safety regulations.
- High risk of building damage and business disruption.
- 50% of the work spaces are situated in temporary and prefabricated structures, resulting in high costs related to energy consumption
- Decentralized and inefficient use of space, with high maintenance costs as a result.

## POTENTIAL TO

increase the site efficiency, and decrease the HQ operational budget, by investing in a long-term modern, high standard & energy-efficient global site renovation.

## PROPOSED RENOVATION STRATEGY HQ GENEVA

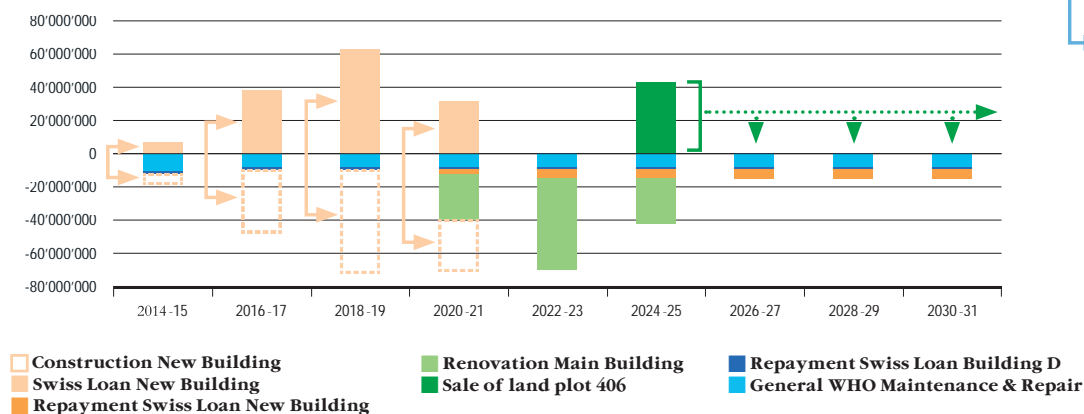
	PHASE 1 2015 - 2020	PHASE 2 2021 - 2024	2025 -
Timing			
What	Demolition of existing temporary structures + construction of new state-of-the-art office building for 770 desks	Complete renovation of the Main building	Sale of land plot 406 + Annual loan reimbursements
Cost	CHF 140 million	CHF 110 million	
Financing	Interest-free loan Swiss Host State (CHF 140 million)	WHO Real Estate Fund (CHF 110 million)	Sale of land plot 406 (CHF 43 million) + WHO Real Estate Fund (CHF 97 million)
Impact on WHO budget	CHF 0	CHF 110 million	CHF 97 million

### WHO REAL ESTATE FUND\*

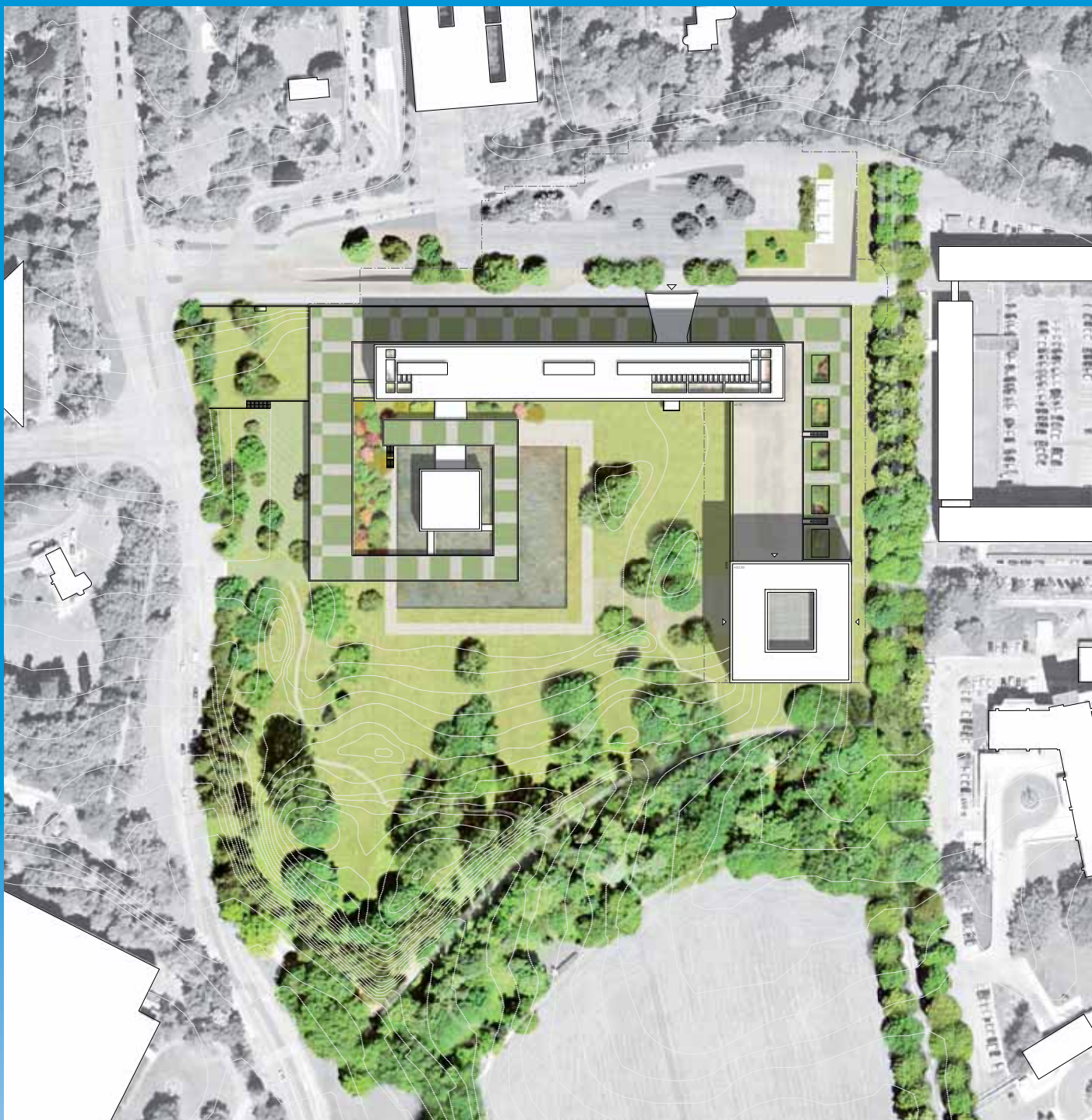
- Financing of phase 2  
= renovation of the main building estimated at CHF 110 million;
- Financing of 70% of the loan reimbursements related to the development of the New Building in Phase 1  
= CHF 97 million (other 30% is financed through the sale of land plot 406)

**SALE OF LAND PLOT 406**  
(min. CHF 43 million)

ESTIMATED TOTAL DEVELOPMENT COST: CHF 250 MILLION







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June 2015