

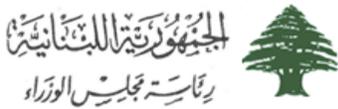
# A STUNNING BLOW

An assessment of Beirut blast's impact on the public sector

September 14, 2020

*A report by the Central Inspection*

*In collaboration with the Ministry of Public Works and Transportation and the  
Ministry of Displaced*



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## 2 FOREWORD

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This report is developed with a new, modern and proactive approach using a digital platform that allows end-to-end traceability of public sector operations. It is the fruit of a collaboration between Central Inspection, the Ministry of Public Works and Transportation, and the Ministry of Displaced, with the support of technology experts, policy researchers, and civil society volunteers. Its objective is not only to map damages sustained by state institutions as a result of the Beirut blast, but to also initiate a full audit of the launch and the development of the rehabilitation and reconstruction processes.

It is the first report of its kind, because of the joint effort, the speed of the research, and the accuracy of the mapping. It is also unique because it has relied on a digital platform and an agile method for data collection and analysis that is paving the way for transparency in public sector processes and transactions. Data analyzed here has been collected through the digital Inter-Ministerial Platform for Assessment Coordination and Tracking (IMPACT) allowing to quickly engage with various institutions and reach a level of granularity allowing to estimate the exact cost and material needed for reparation and to track the corresponding expenses; future reconstruction funding can be traced from donor, to implementer and beneficiaries, through a well-integrated workflow under the oversight of Central Inspection.

But IMPACT goes beyond damage assessment and reconstruction. It is a journey which has started six months ago at Central Inspection, embarking many state institutions in a joint venture to digitize processes and bring transparency and efficiency to public operations. Sectoral data, decisions, logistics, and human resources are all being mapped on IMPACT, providing our institution with an unprecedented access to information and initiating the transparency and accountability much needed today for oversight and strategic advice. This cross-sectoral solution has already reached out to all 1,100 municipalities around the country, 7 ministries, as well as many public institutions. Today, it is expanding to more state and non-state actors, promoting interinstitutional collaboration, efficiency and responsibility.

IMPACT is a journey that has now taken its cruise speed and that will continue, allowing us to rebuild the State and the public administration in which we believe.

Judge Georges Auguste Attieh, President of Central Inspection

September 12, 2020

### 3 EXECUTIVE SUMMARY

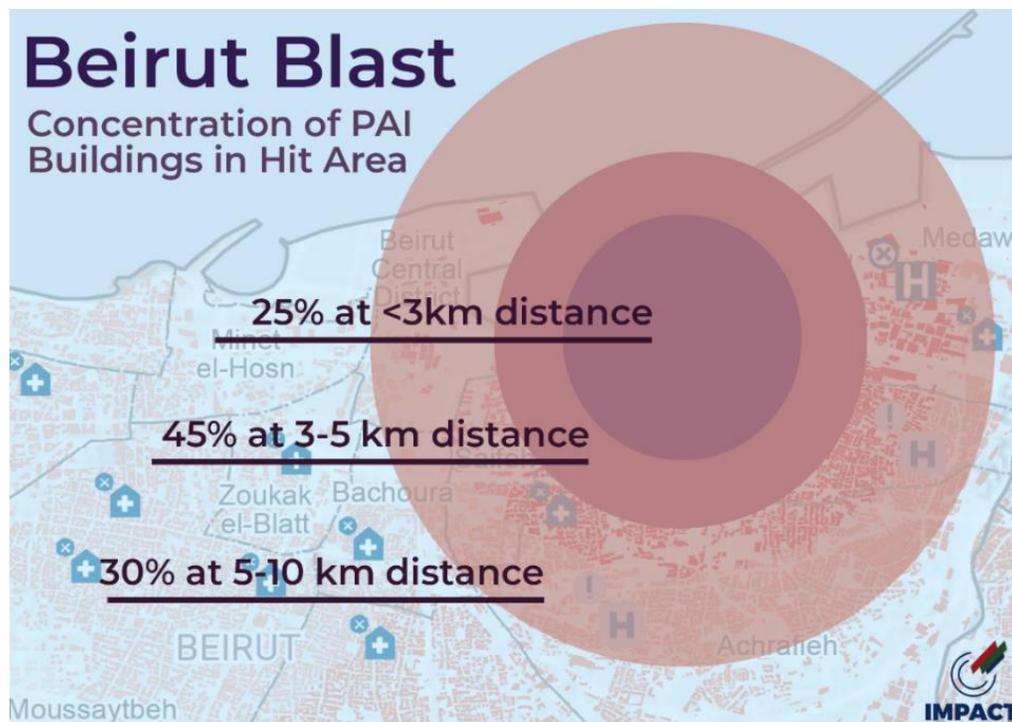
One week after the blast, Central Inspection deployed an extensive damage assessment survey for public buildings in Beirut and its suburbs on IMPACT, the Inter-Ministerial Platform for Assessment, Coordination and Tracking. This platform is a comprehensive e-Gov enterprise solution, tracking and assessing various aspects of public administration's activities, decisions, and needs. Central Inspection has collaborated with the Ministry of Public Works and Transportation and the Ministry of Displaced, both providing the necessary technical support, allowing to overcome the lack of specialized staff and engineers within the public service, and to speed up the assessment process.

This report intends to highlight the key findings of this assessment.

#### 3.1 DAMAGE EXTENT

Around **300** official buildings were identified around Beirut and its suburbs, distributed as follows: **25%** situated close to the explosion site (less than **3** kilometers), **45%** at an average distance from the site (between **3** and **5** kilometers) and **30%** at a far distance from the site (between **5** and **10** kilometers). This report covers the assessment of **200** of these buildings, affiliated with **116** different public administrations and institutions. With the World Bank reporting that “**23%** of public institution buildings in the affected zone were damaged” (Beirut Rapid Damage and Needs Assessment, August 2020), this assessment gives a clear idea of the extent of damage incurred by the public administration due to the blast.

*Fig.1 Average distance of public buildings from the explosion site*



On and all, the total cost of rehabilitation and reconstruction is **USD 39,510,000**. In fact, cost of damage is estimated around **USD 20,793,000**, both in terms of building and structural damage (**USD 15,366,000**), and in furniture and equipment (**USD 5,427,000**). These estimations are based on the price lists provided by both the Ministry of Public Works and Transportation and the Ministry of Displaced and updated by Central Inspection. Taking into account additional and underestimated reconstruction and rehabilitation costs (rubble removal, soft cost, overhead, variation in quality and market prices, waste factor, and unforeseen damages), the total cost would increase by **90%**.

Vital public sectors such as security, social protection, education, and industry, were affected, highlighting the urgency of the rehabilitation and reconstruction processes in order to ensure continuity of public service. For instance, security agencies around the city assessed damages in **33** of their buildings, **28** of which are ISF barracks and police stations, **2** held by the Ministry of National Defense and **3** by the General Directorate of Customs. The public education sector was also remarkably affected by the blast, with stakeholders assessing damages in around **39** different buildings.

The **40** most heavily damaged public buildings, situated within a **3-kilometer** radius of the explosion center, constitute 50% of the damages. They are distributed among **8** key policy sectors: energy, education, security, healthcare, telecommunication, economy, research, and culture. The heaviest damages are distributed as follows:

- Energy: + USD 11,942,000
- Education: USD 2,831,000
- Security: + USD 724,000
- Healthcare: + USD 84,000 (*excluding the Governmental hospital in Karantina*)
- Telecommunications: + USD 2,663,000
- Economy: + USD 5,927,000
- Research: + USD 656,000
- Transportation: + USD 2,283,000
- Culture: + USD 1,054,000

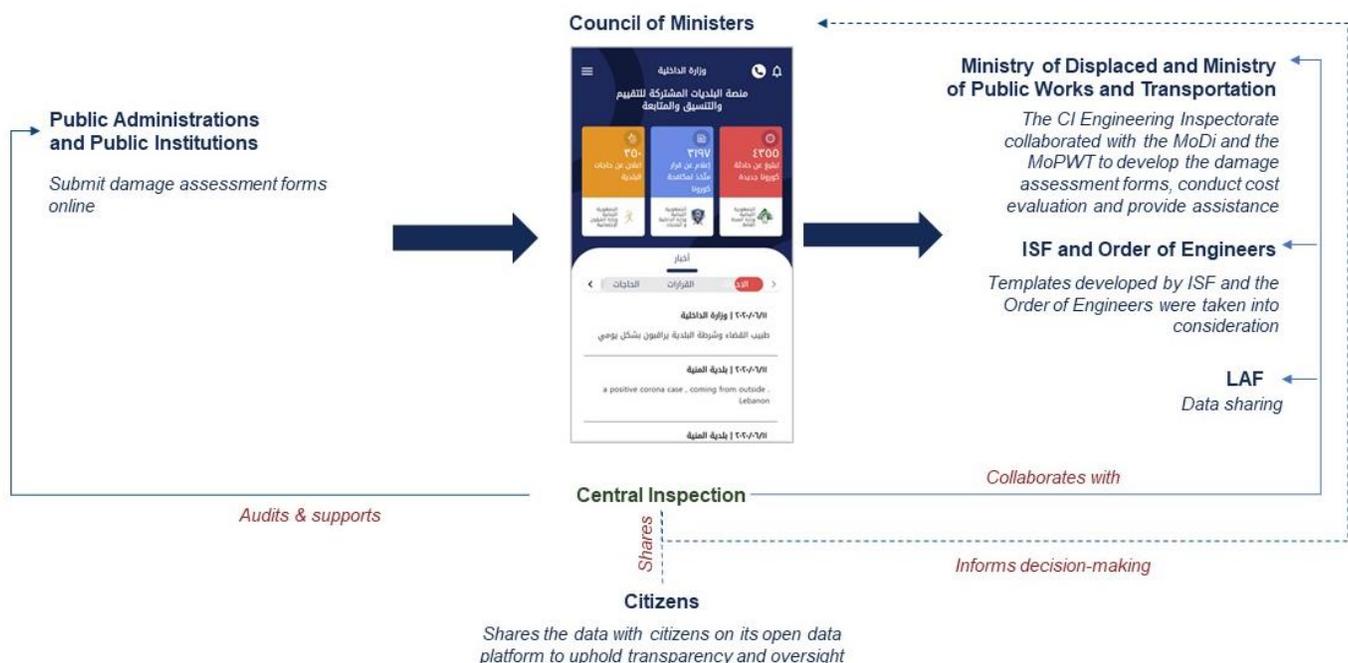
On the other hand, only **5** administrations and institutions close to the Port have not done the assessment yet, namely the Municipality of Beirut, Beirut Governorate (with **3** buildings), the Educational Research Center (with 2 buildings in Achrafieh), the Establishment of the Water of Beirut and Mount Lebanon, and the Internal Security Forces' Ibrahim Al Khoury barracks in Achrafieh. Central Inspection has already followed-up with **3** of these entities, only the Educational Research Center and the Municipality of Beirut could not be reached.

Overall, severe to medium damages were reported: out of the **200** buildings assessed, **3%** are totally lost, **19%** are highly damaged, **48%** sustained medium damages, **26%** sustained only minor damages. Only **2%** reportedly didn't sustain any damage, which clearly does not reflect the field situation. In fact, the trend is (naturally) as follows: the further the entity from the Port, the less likely it is to fill the assessment. Most administrations and institutions that are relatively far from the explosion site, and were probably not affected by the blast, have not filled the assessment form.

### 3.2 DATA COLLECTION

Most entities were contacted between August 25 and September 8, starting with the closest to, and most affected by, the explosion site, to assess damages suffered. A large-scale call center operation was organized by Central Inspection staff (inspectors and clerical staff), alongside civil society volunteers, in order to follow-up with the different public administrations and institutions on filling the form. In parallel, the Presidency of Central Inspection got in direct contact with the different General Directors, urging them to press their respective administrations to do the assessment. The President of Central Inspection also followed-up with institutions affiliated to the Presidency of the Republic and the Presidency of the Council of Ministers.

Fig.2 The data collection workflow



### 3.3 WAY FORWARD

Going forward, the damage assessment put forward by Central Inspection will allow the Presidency of the Council of Ministers to evaluate needs and share them through its Donor Coordination Platform in order to inform reconstruction and rehabilitation plans. In parallel, damage assessment results were also consolidated in a public dashboard and made available for citizens on IMPACT's open data website, to promote transparency and public oversight over government decisions and actions.

In its Beirut Rapid Damage and Needs Assessment published in August 2020, the World Bank declared that "data collection was a major challenge in conducting an informed damage assessment. The *Inter-Municipal Platform for Assessment, Coordination & Tracking* (IMPACT) championed by the Central Inspection and operated by different stakeholders to monitor COVID-19 cases is being further expanded to support the public administration in posting their self-assessment of damages. Such initiatives to

simplify government operations need to be supported urgently to ensure recovery of governance functions.” Indeed, and through this operation, Central Inspection aims to pursue its mission on the medium term, beyond mapping and evaluation, to audit the recovery and reconstruction processes. Governance and public sector reforms are at the heart of reconstruction. In this regard, Central Inspection will assume its double role as an oversight agency monitoring administrative behavior and informing decision-making processes.

For real-time data on damage and reconstruction costs, please visit:

<https://impact.cib.gov.lb/home/dashboard>

## 4 BACKGROUND

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With an already weakened central government concentrated in the capital city, the blow of the Beirut blast was hard on the Lebanese public administration. Government buildings were severely affected by the explosion, with sometimes significant structural damages. But to what extent exactly? How long will it take, and how much will it cost to get everything back on track? Central Inspection (CI), one of the country's main oversight agencies, and the only body that has a mandate to inspect and investigate public institution operations on the ground, tried to answer these questions by urgently deploying a comprehensive damage assessment one week after the blast. The assessment form maps in details the damage sustained by public buildings in Greater Beirut, in order to inform post-disaster reconstruction and rehabilitation processes. It was deployed on IMPACT, the first e-Gov platform in Lebanon.

IMPACT was developed in February 2020, in cooperation with the Ministry of Interior and Municipalities (MoIM), to support the nationwide response planning to the COVID-19 crisis by facilitating the monitoring of municipal needs, decisions, and incidents related to the pandemic. Today, it addresses a much wider range of government data, catering to stakeholders from across the different levels of government, and putting freely accessible information at the citizens' and the decision makers' fingertips, in an effort to promote transparency, drive policy making, and begin to rebuild trust between citizens and state institutions.

IMPACT has already succeeded in enhancing local public response to administrative, social, development, and health challenges. Intervention in more sectors such as agriculture, environment, and civil service management, is under way; and today, public administrations and institutions are using it to conduct this comprehensive damage assessment requested by CI.

## 5 ABOUT THE FORM

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The damage assessment form was the result of a close collaboration between CI's Engineering Inspectorate, the Ministry of Displaced (MoDi), and the Ministry of Public Works and Transportation (MoPWT). Templates developed by the Internal Security Forces (ISF) and the Order of Engineers were also used as references. The form is composed of eight sections that allow the user to capture the full extent of the damage sustained by an official building or space (floors in a building), both in terms of structure (external and internal) and equipment (IT, furniture, transportation, etc.). It was launched through a circular issued on August 13 by Judge Georges Attieh, the President of CI, to all public administrations and institutions. Engineers from MoDi and MoPWT were on standby to support non-technical staff from the different institutions in filling the form.

In parallel, CI staff played a double role. On the one hand, an "outgoing calls" team was put in charge of pushing for the integration of all public entities on the platform, following-up on their uptake of the form, and auditing their compliance with the CI circular. On the other hand, an "incoming calls" team was responsible for supporting the users, answering their questions, and solving eventual technical issues they may face. Monitoring and audit processes were also put in place, through the development of different dashboards updated in real-time. These dashboards allow CI to target its audit missions, in a way to enable

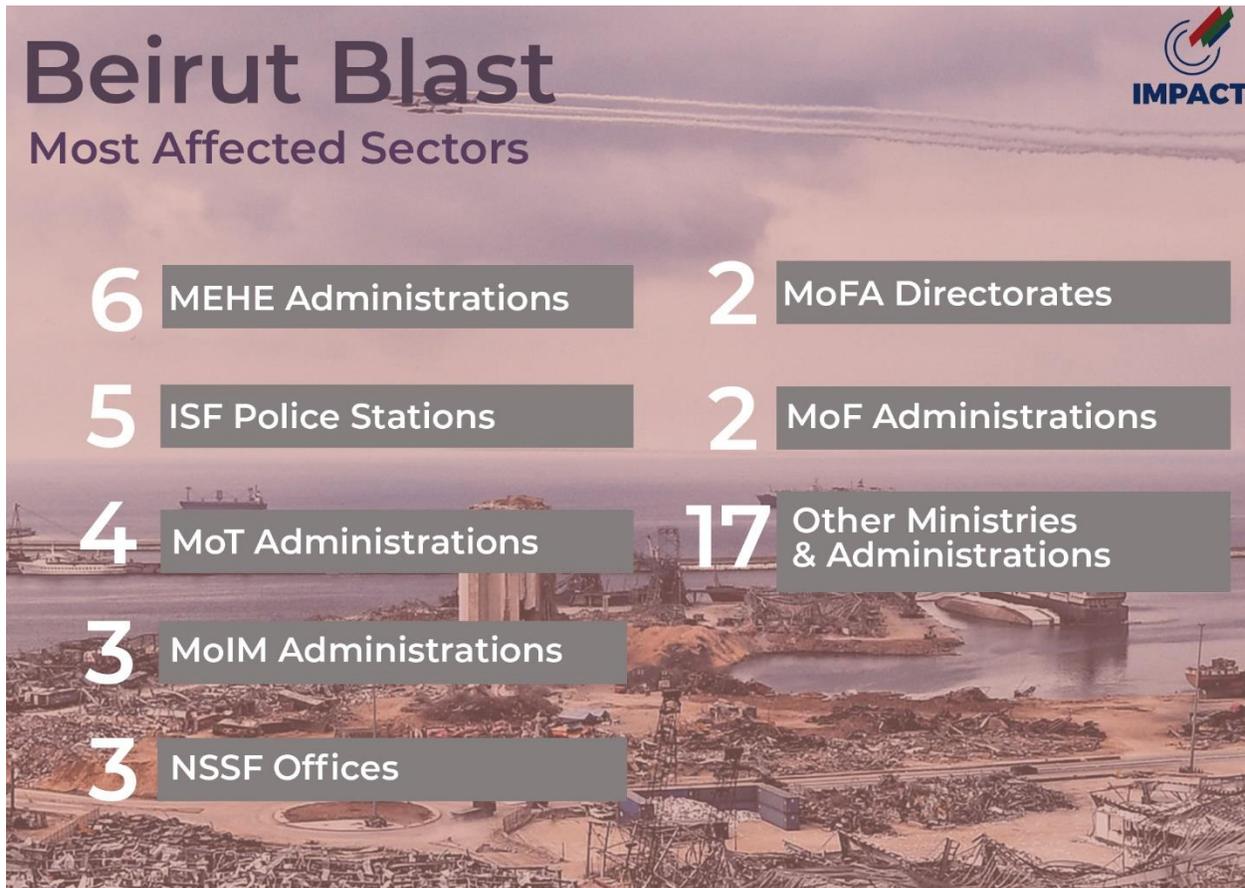
a comprehensive mapping of both the damage sustained by government buildings and the corresponding administrative behavior in these troubled times.

## 6 MAIN FINDINGS

### 6.1 SECTORAL OUTLOOK: URGENCIES AND PRIORITIES

Heavily damaged public buildings are distributed among **8** key policy sectors.

*Fig.3 Most affected sectors*



#### 6.1.1 Energy

The *Electricité du Liban* (EDL) headquarters located in the Mar Mikhael district was one of the most badly hit buildings given its proximity to the port. The building's structure has been severely affected, and furniture as well as equipment (computers, cars) have been nearly, if not totally, destroyed. Rebuilding the EDL headquarters in Beirut is crucial to start with the process of reviving the notoriously dysfunctional electricity sector in the country. EDL will need to be fully rehabilitated in order to fulfill its role in bringing a solution to the electricity problem that has been plaguing the country for years, and which has contributed to the exorbitant squandering of public funds. The declared cost of repairing the building and refurbishing it, amounts to **USD 11,942,000**.

### 6.1.2 Education

The education sector has proven to be instrumental for Lebanon, and as the economic crisis accentuates, a number of individuals will be looking towards enrolling in public schools and universities. This entails an added pressure on the public system which is already struggling with an overflow of students since before the August 4 explosion.

**Public schools and technical centers:** The explosion caused heavy damage to public schools, in particular the *Achrafieh mixed school* situated less than 1 km from the Port and requiring **USD 129,000** to cover reparation costs. Technical and vocational education centers were not spared either: the *Dekweneh Center* and the *Nabih Berri Technical and Vocational Center* at a require around **USD 2,192,000** to cover reparation costs. These institutions are essential in providing economically vulnerable groups and those affected by the economic crisis and the explosion with the possibility of seeking or continuing their education.

**Higher Education:** As the economic crisis exacerbates and individuals seek higher education in the only public university in the country – the Lebanese University – three of its heavily damaged buildings require priority intervention, of which the cost amounts to around **USD 510,000**:

- The *Faculty of Business and Economics* – Lebanese University in the close radius of the explosion requiring **USD 360,000** to cover reparation costs.
- The *Doctoral School for literature, humanities and social sciences* – Lebanese University at a distance of 4 km from the explosion **USD 85,000** to cover reparation costs.
- The *Faculty of Education Rectorate* – Lebanese University in the close radius of the explosion requiring **USD 65,000** to cover reparation costs.

### 6.1.3 Security

Internal Security Forces have been and will be instrumental in keeping communities safe, in light of the economic crisis and the higher risk for petty crime and looting. The damage to exterior doors of home and shops has also made private property more vulnerable to looting. It is as such that security need to be further reinforced for people to seek and find refuge in state security enforcement. However, 5 police stations have found themselves heavily damaged by the explosion to completely lost. The cost of repairs of which amount to **USD 630,000**. These police stations are key in maintaining security and supporting citizens especially once the state of emergency is lifted. The five affected Internal Security Forces heavily affected to lost, along with the required amount for repairs are as follows:

- The *Mohammad Nasser Barracks, Geitawi* – **USD 413,000**
- The *Gemmayze police station* – **USD 96,000**
- The *Beirut Port station* – **USD 53,000**
- The *Beirut Downtown office* – **USD 44,000**
- The *traffic detachment* – **USD 24,000**

In addition to the police stations, the Civil Defense has lost 2 of their stations in Beirut. Civil Defense has proven to be essential following the fire in the port on September 10 as well as the work they have been doing in trying to tame the wildfires that have been erupting throughout the country. The station in the

very close proximity of the port has sustained heavy damage which would require **USD 94,000** to cover repair costs.

#### 6.1.4 Healthcare

Government hospitals are instrumental in ensuring medical assistance to more vulnerable groups and supporting them. This has been the case especially since the COVID-19 outbreak and the aftermath of the explosion where a larger population has been in need of seeking regular health care check-ups. Indeed, the healthcare sector has been under added pressure since the increase of infection numbers of COVID-19 and the injuries sustained by people. The destruction of the *Governmental Hospital of Beirut* in Karantina has been devastating for the community, the cost of reparation of which has yet to be determined. On the other hand, the *National Social Security Fund (NSSF)* is responsible for providing citizens with financial aid for medical expenses. Reconstruction of these offices is therefore crucial in order to provide citizens in need with healthcare. The NSSF provides covered citizens with financial assistance to cover medical fees for the treatment of wounds sustained from the explosion and, in general, treatment that they normally would have not needed. It also assists the citizens in purchasing medication that is becoming harder to obtain in light of the dire economic crisis. Also, with COVID-19 cases on the rise exponentially, citizens will undoubtedly need to receive support for treatment and/or hospitalization if necessary, which further highlights the important role that the NSSF plays today. Three NSSF offices have been heavily damaged as a result of the explosion, the reparation cost of which amounts to **USD 84,000** as detailed below:

- The *Burj Hammoud office* – **USD 55,000**
- The *Dawra office* – **USD 16,000**
- The *Achrafieh office* – **USD 13,000**

#### 6.1.5 Telecommunication

The telecommunication sector, one of the main sources of revenue for the Lebanese state has also been severely hit, with heavy damage sustained by the building of the Ministry of Telecommunications, as well as two of Ogero's centers. The declared cost of reparation of said damages amounts to **USD 2,731,000**. The centers normally provide technical and service support to most of the capital and would need to be refurbished for operations to continue normally. The ministry building has lost a considerable amount of glass and iron in its external structure, along with its furniture and equipment. The cost of reparations breakdown is detailed as below:

- *Ministry of Telecommunications* – **USD 1,962,000**
- *Ogero Center, Mar Mikhael* – **USD 573,000**
- *Ogero Center, Mina El Hossn* – **USD 129,000**

In addition to these buildings, the *Telecommunications Regulatory Authority* in downtown Beirut assigned to liberalize, regulate, and develop telecommunications in Lebanon has also suffered heavy damage, the cost of reparation of which amounts to **USD 68,000**.

#### 6.1.6 Economy

The building of the *Ministry of Economy and Trade* located in Azarieh in downtown Beirut has been severely damaged by the explosion. Rebuilding it is instrumental for the coming phase, as the World Bank

affirmed in its report: “the current crisis provides a critical opportunity to build back a better Lebanon, guided by principles of transparency, inclusion, and accountability.” The Ministry of Economy and Trade has an important mandate with this regard, to lead on the sound-policy making on the economic level, while integrating these principles. Additionally, the ministry does not dispose of any other major location, and is therefore dependent on the reconstruction of its building in order to be able to resume properly fulfilling its functions. The reparation of its building would cost **USD 1,269,000**.

The *Ministry of Finance’s* building in downtown Beirut has also suffered heavy damage, and while the ministry’s role in the coming phase will be key, it is worth noting that the institution disposes of a number of other considerable offices around Beirut. The declared cost of repairing the ministry’s building is **USD 972,000**.

The *Ministry of Environment’s* only offices in Azarieh, downtown Beirut, have also been greatly affected by the Beirut explosion, the reparation cost of which amounts to **USD 118,000**. Beirut, and Lebanon in general, has been suffering from great environmental hazards on different fronts, ranging from wildfires, poor waste-management, and toxic chemicals such as dioxin being released in the air as a result of the explosion of the port and the subsequent fire that ravaged it on September 10. As mentioned in the World Bank report, “mainstreaming of environmental management in the medium-term and long-term recovery and reconstruction agenda for a resilient and Green Beirut” is necessary now more than ever.

The Public Authority for Consumer Markets sustained heavy damages in their main building and two of their markets, which implies a total cost of USD 3,568,000 to cover the recovery and reconstruction needs. In the context of the current economic and financial crises, the rehabilitation of these premises is deemed important considering the roles that the authority plays in the creation and management of consumer markets, and the guidance of consumers, in order to promote national products and protect consumers.

### 6.1.7 Research

Research centers, namely *Institut des Finances Basil Fuleihan*, the *Investment Development Authority of Lebanon*, the *Institute for Industrial Research*, the *National Council for Scientific Research*, and the *Economic and Social Council of Lebanon*, play a pivotal role for governance and research in the coming period. The cost of reparations of said buildings amounts to **USD 656,000**. The reconstruction of these centers is nonetheless essential, as they are led by and composed of experts who constitute key allies for the international community, in their effort to help shape reform-oriented policies in the coming future. The reconstruction of the *National Center for Maritime Studies* is also important in order to be able to resume research on the effect of the explosion, wildfires, and dioxin affecting the environment and marine life.

- *Investment Development Authority of Lebanon* – **USD 232,000**
- *Institut des Finances Basil Fuleihan* – **USD 216,000**
- *Economic and Social Council of Lebanon* – **USD 185,000**
- *Institute for Industrial Research* – **USD 16,000**
- *National Council for Scientific Research* – **USD 6,000**

### 6.1.8 Transportation

Situated in the Mar Mikhael district, the *Railway and Public Transportation Authority* that is in charge of managing and investing in the public transportation network in Greater Beirut and suburbs, sustained big damages, given its proximity to the explosion center: it would require up to **USD 2,283,000** to cover reconstruction needs. The authority has been dysfunctional, with routes largely ceasing during the 1970s and a sector in an overall poor condition. The rehabilitation of the premises can be part of a bigger revival of railway in Lebanon, through the reinvestment in an efficient and regulated public transportation network, which would boost the economy and provide citizens with a much-needed public service today.

### 6.1.9 Culture

And last but not least, culture. The *Lebanese National Higher Conservatory of Music* in Monnot, Achrafieh which provides citizens of all ages with affordable access to music lessons has sustained important damage amounting to **USD 85,000**. Heritage public buildings were also not spared: the directorates of expatriate affairs and ratification department as well as the directorate for administrative and financial affairs at the *Ministry of Foreign Affairs* have been badly damaged. Indeed, the woodwork in these buildings has been destroyed and would require specialized work to be restored, the declared cost of which was roughly estimated at **USD 1,054,000**.

## 6.2 MAPPING SEVERE TO MEDIUM DAMAGES

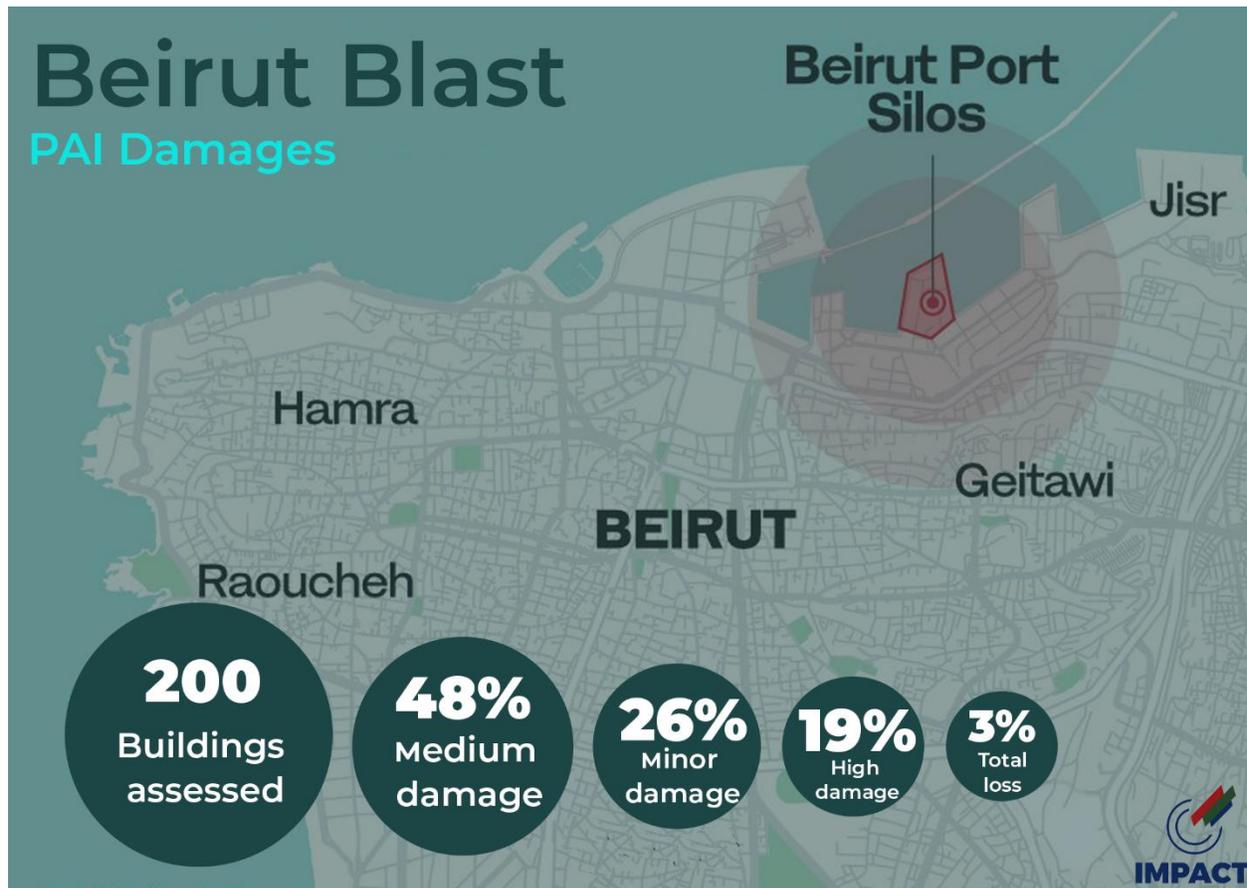
In almost four weeks, **200** official buildings in **1116** different public administrations and institutions (PAI) were assessed. The assessments were performed by **98** users on the platform. Forms were filled by building: each user assigned by a given PAI can fill as many forms as there are buildings attached to this PAI, all while indicating the floors covered by this mapping.

Fig.4 The damage in numbers

<b>200</b>	<b>116</b>	<b>98</b>	<b>38</b>	<b>5</b>
buildings assessed	different public administrations and institutions	actives users doing the assessments	severely damaged buildings	Buildings totally lost

Overall, out of the **200** government buildings assessed, **3%** are totally lost, **19%** are highly damaged, **48%** sustained medium damages, and **26%** sustained only minor damages, as indicated in the figure below.

Fig.5 Overall extent of damage in public administrations and institutions



On and all, the total cost of damage is estimated around **USD 20,793,000**, both in terms of building and structural damage (**USD 15,366,000**), and in furniture and equipment (**USD 5,427,000**). These estimations are based on the price lists provided by both the Ministry of Public Works and Transportation and the Ministry of Displaced and updated by Central Inspection. Taking into account additional and underestimated reconstruction and rehabilitation costs (rubble removal, soft cost, overhead, variation in quality and market prices, waste factor, and unforeseen damages), the total cost would reach **USD 39,510,000**.

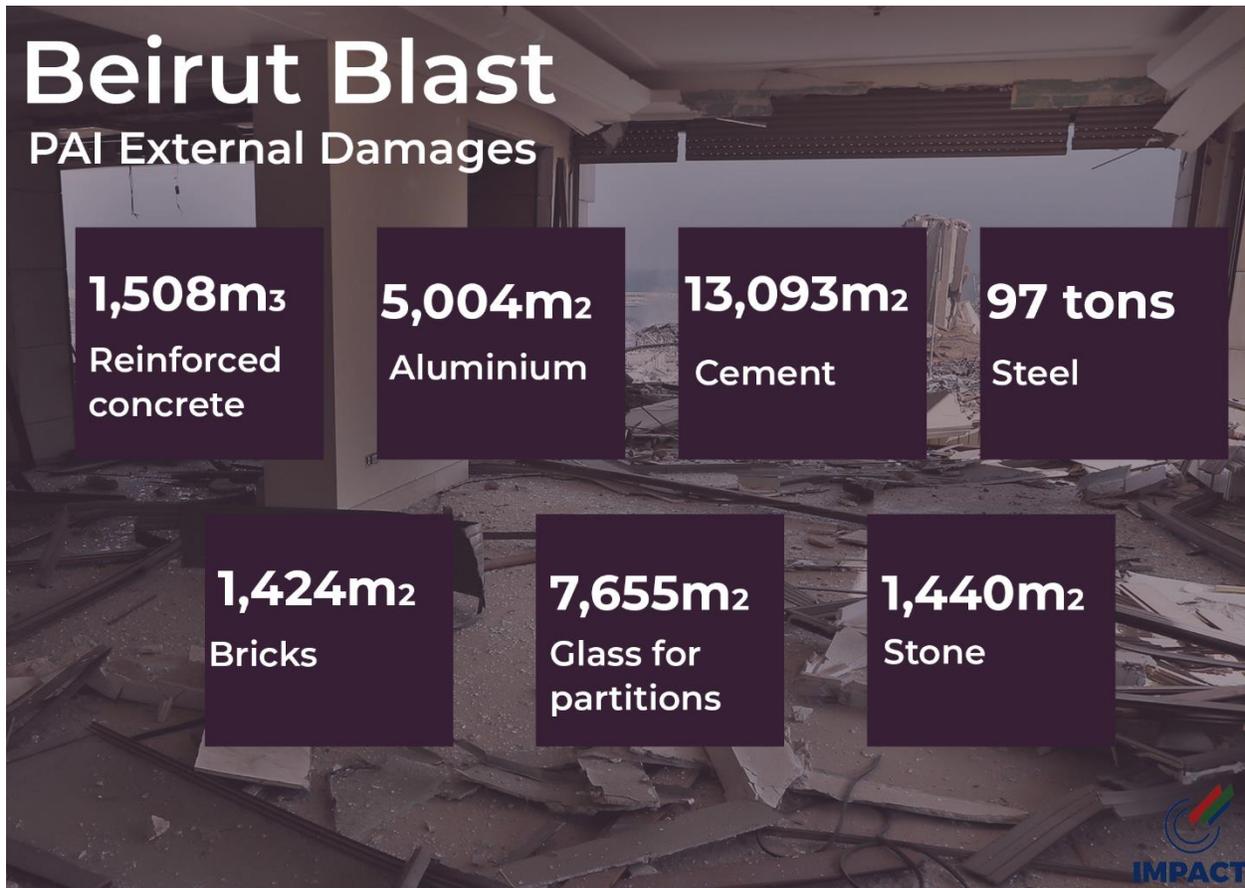
### 6.3 BUILDING AND STRUCTURAL DAMAGE: MORE THAN USD 15.3 MILLION

To date, and with **200** government buildings assessed around Beirut and its suburbs, structural damage (both internal and external) can be estimated at around  $\pm$ **USD 15,300,000** based on the available price lists. On the external level, cost of damage in the buildings' external structure amounts to a total of around **USD 400,000**, with losses mainly affecting stone (**1,440 m<sup>2</sup>**) and enforced concrete (**1,508 m<sup>3</sup>**). Damage in the external cladding is mainly in aluminum (**5,004 m<sup>2</sup>**), and syntax to a lesser extent (**320 m<sup>2</sup>**), which amounts to a total of **USD 683,000**. Damage in internal partitions is mostly in cement (**13,093 m<sup>2</sup>**), glass (**7,655 m<sup>2</sup>**), gypsum board (**2,741 m<sup>2</sup>**), and wood (**466 m<sup>2</sup>**), which amounts to a total of around **USD 2,107,000**. Electricity of Lebanon headquarters building – that is within a 1-kilometer radius from the

explosion center – sustained more of the **80%** of damage in reinforced concrete and cement in partitions, and was rendered not operational.

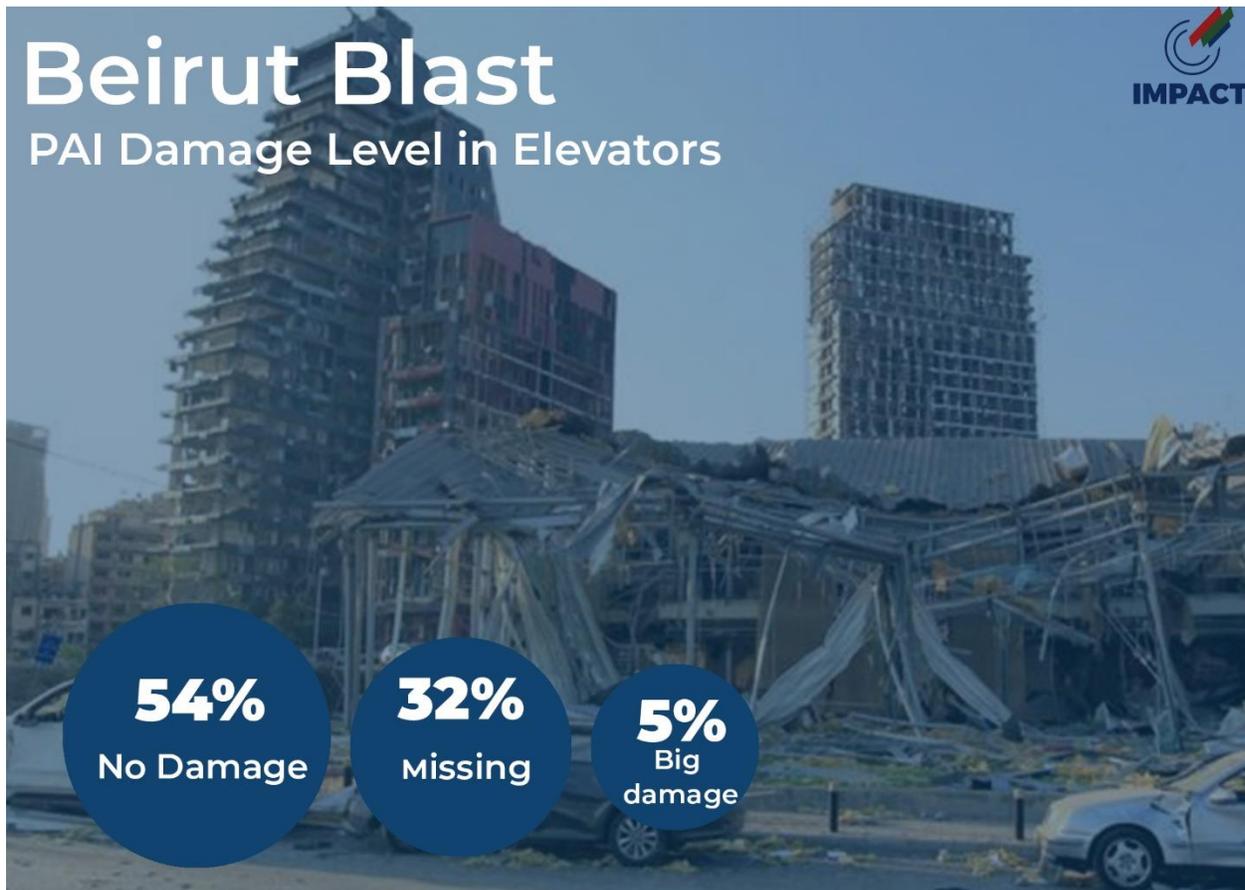
Damage in bricks (**1,424 m<sup>2</sup>**) exceeds **USD 123,000**. Damage in steel is reported around **97 tons**, amounting to around **USD 650,000**, mainly sustained by the Railway and Public Transportation Authority buildings – situated less than one kilometer away from the Port. It is worth noting that the Authority previously reported a **300-ton** loss of steel, adjusted following a data audit operation led by Central Inspection and that detected some inconsistencies.

*Fig.6 External damage in numbers*



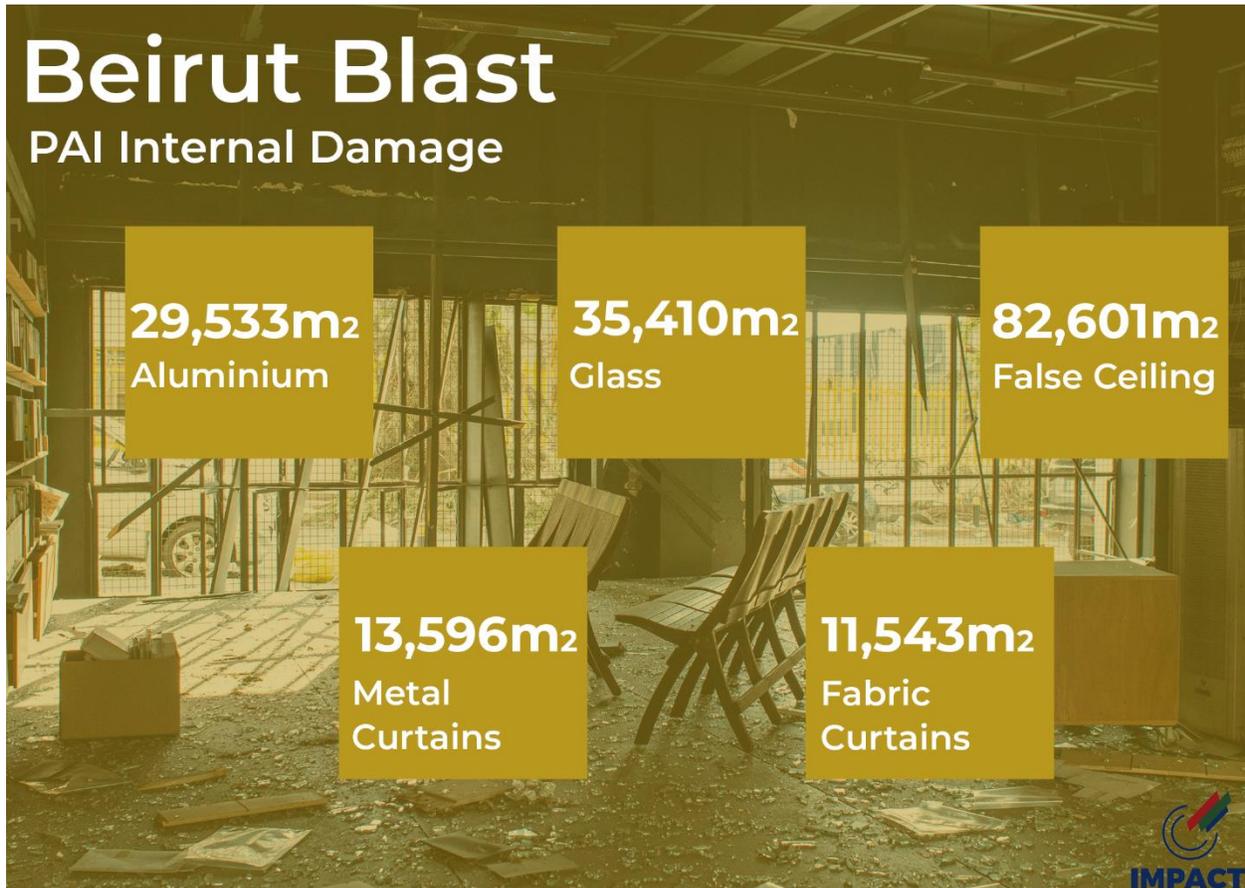
Overall, **8%** of PAI reported medium to large damage in the buildings’ elevators, whereas **57%** of them reported minor to no damage. The “missing” label indicates that the item either doesn’t exist in the PAI (building with no elevator) or that it didn’t sustain any damage.

Fig.7 Overall damage level in elevators



On the internal level, the most damaged materials were aluminum (**29,533 m<sup>2</sup>**), glass (**35,410 m<sup>2</sup>**), and wood (**6,354 m<sup>2</sup>**), with a total cost of damage amounting to around **USD 6,300,000**. The most damaged items are false ceilings (**82,601 m<sup>2</sup>**, which exceeds **USD 2,640,000**), ceramic flooring (**2,045 m<sup>2</sup>**, which amounts to more than **USD 102,000**). Damage in curtains – both metal curtains (**13,596 m<sup>2</sup>**) and fabric curtains (**11,543 m<sup>2</sup>**) – amounts to around **USD 840,000**.

Fig.8 Internal damage in numbers



Damage in walls is mainly registered in coating (31,292 m<sup>2</sup>), paste (48,585 m<sup>2</sup>), base (69,944 m<sup>2</sup>) and paint (13,181 m<sup>2</sup>), with a total of around **USD 1,000,000** for wall finishes. Toilets and sanitary ware and electrical ware (i.e. cables, sockets and lighting) were not spared either, with a total cost of damage amounting to around **USD 81,000**, and **USD 455,000** respectively. Damage in kitchens amounts to around **USD 11,000**, with 14 kitchen sinks and 74 kitchen cabinets damaged. No serious damage is reported in stairs to date.

#### 6.4 EQUIPMENT AND FURNITURE DAMAGE: AROUND USD 5,4 MILLION

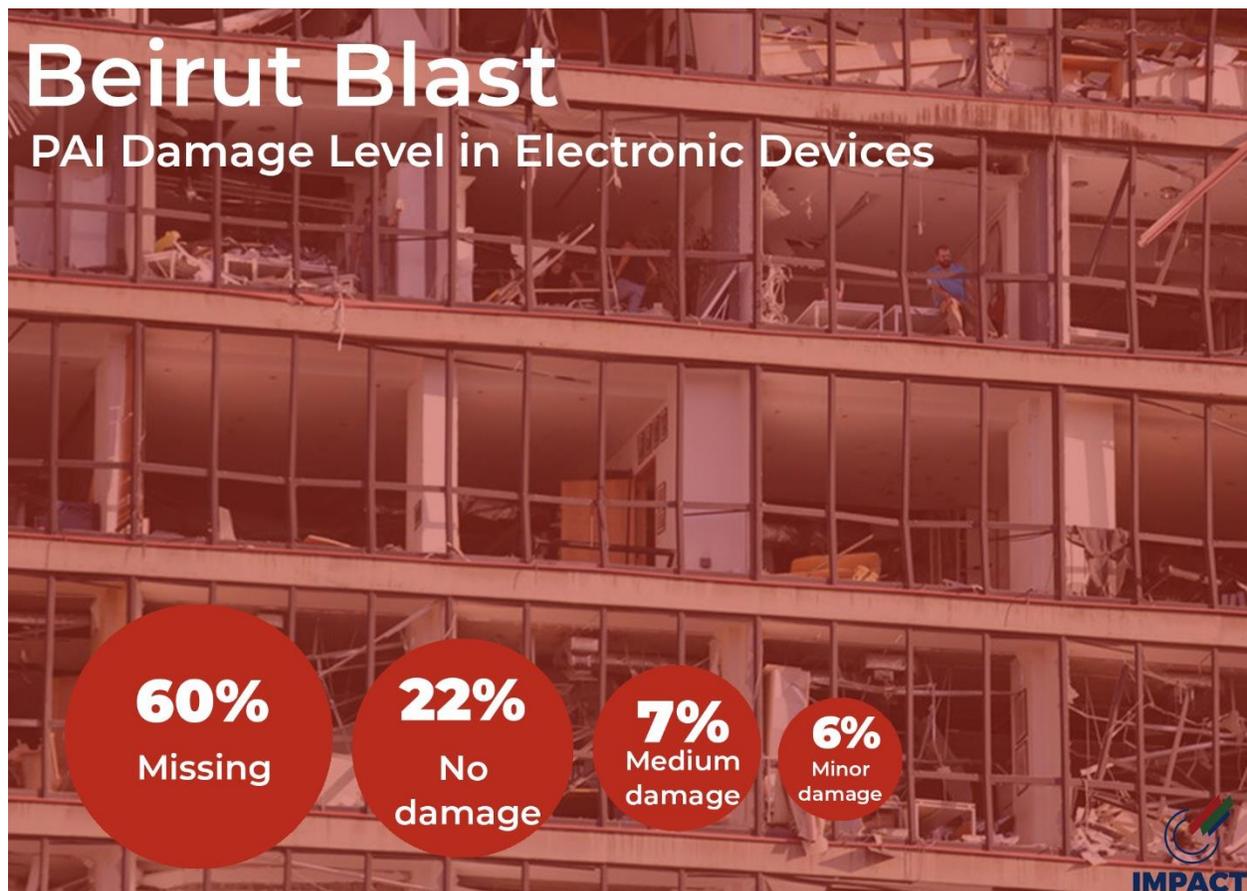
To date, and with **200** government buildings assessed around Beirut and its suburbs, damage in equipment and furniture can be estimated at around **±USD 5,427,000** based on the prices lists provided by both MoDi and MoPWT, and updated by CI.

Total loss of air conditioners exceeds **USD 900,000** (with around **886** ACs totally lost, of different energy levels). Even repairable units are damaged with an average of **29%** of the ACs' original value. Total loss of heaters amounts to around **USD 12,000** (with around **39** units affected). Even repairable heaters are damaged with an average of **30%** of the heaters' original value. Water heaters were not spared either, as **24** units were damaged, for a total cost of over **USD 5,000**. Damage in electrical generators exceeds **USD 24,000** (with **2** units affected). As for fire alarms, total loss is estimated at around **USD 750** (with **3** units

completely lost). And repairable fire alarms are damaged with an average of **29%** of the fire alarms' original value.

IT equipment was also particularly affected by the blast, with a total cost exceeding **USD 760,000**: **55** laptops and **899** computers are reportedly damaged, with damage ranging from minor to medium (mainly sustained by the screens). Other electronic devices were also damaged, the cost of damage reaching around **USD 692,000**, with **451** printers, **99** scanners, **482** telephones, **114** cameras, **34** televisions, and **262** screens. Overall, only **5%** of government buildings mapped sustained big damage or full loss in electronic devices, whereas **28%** of them reported minor to no damage.

*Fig.9 Damage level in electronic devices*

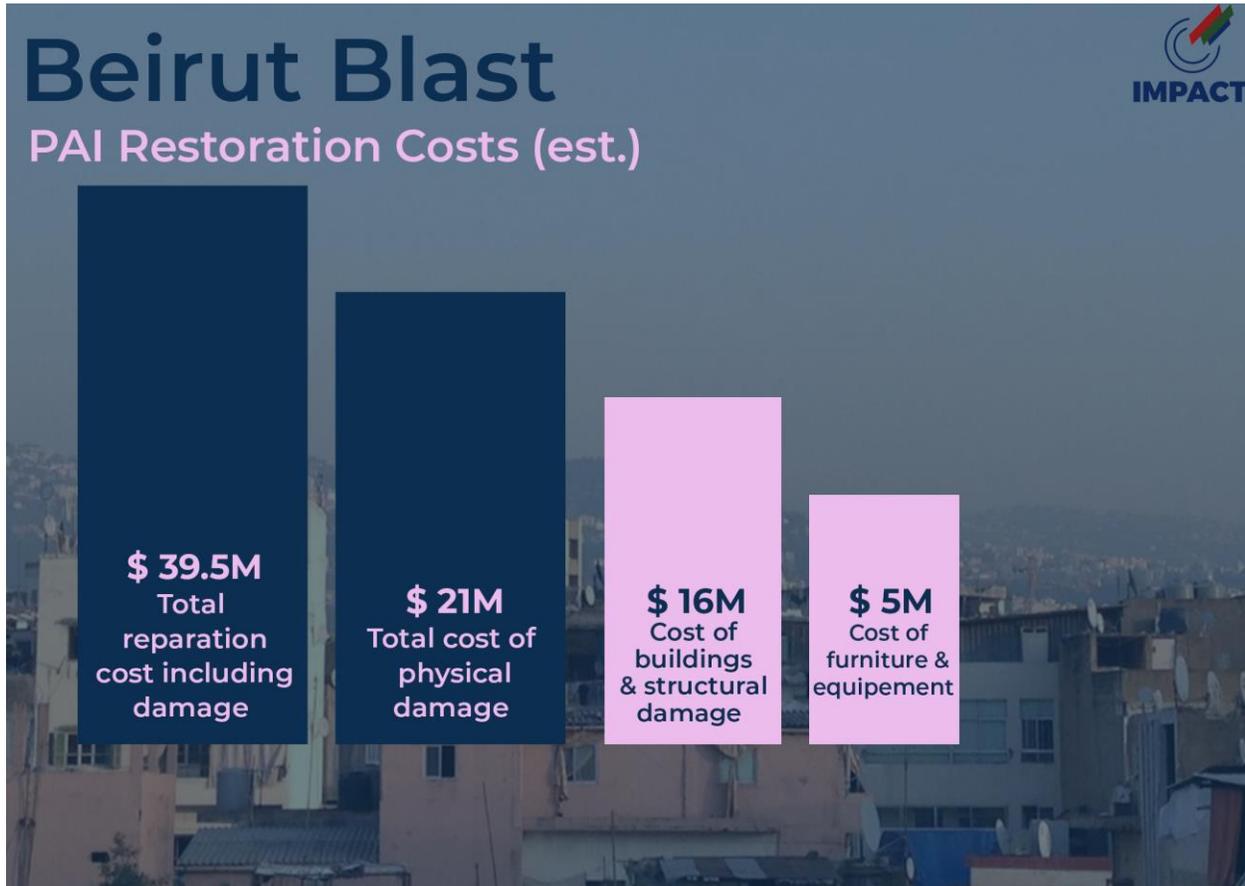


Cost of damage in furniture exceeds **USD 2,029,000**. Overall, **1,341** closets, **987** chairs, **940** mobile chairs, **755** tables, **169** couches, 100 bookcases, **31** shelves, and **2** plants (with different levels of quality), as well as **79** paintings were reported damaged in the mapped government buildings. In addition to that, the cost of damage in moquette (total of **699 m<sup>2</sup>**) and parquet (total of **114 m<sup>2</sup>**) can be estimated at around **USD 25,000**.

In terms of vehicles, damage can be estimated at around **USD 980,000**, with **48** cars and **1** truck reported beyond repair – this cost can be further adjusted with additional details on the brand or the cost. Only **3%** of the government buildings reported big damage to full loss in their vehicles, whereas **34%** of them

reported minor or no damage. Finally, only **4%** of government buildings sustained damage in their archives and files, whereas **32%** of them reported minor to no damage. Two institutions declared extensive damage to their archives: The Cooperative of Government Employees (big damage) and the Industrial Research Institute (full loss).

*Fig.10 Total damage estimation breakdown*



### 6.5 ON THE GROUND: HIGH COSTS, SELF-RELIANCE AND DISILLUSIONMENT

For **200** official buildings assessed, the total cost as detailed in the previous sections is around **USD 20,793,000**, both in terms of building and structural damage (**USD 15,366,108**), and of furniture and equipment (**USD 5,426,550**). These estimations are based on the price lists provided by both the Ministry of Public Works and Transportation and the Ministry of Displaced, and updated by Central Inspection. Considering reconstruction and rehabilitation costs (rubble removal, soft costs, overhead, variation in quality and market prices, underestimation, waste factor, and unforeseen damages), total cost would exceed **USD 39,510,000**. These costs can still further increase, as the measurement of some items is currently absent from the forms, which can be explained by delays in mapping and quantification inaccuracies, both due to the protracted rubble removal and clean-up operations, rather than the absence of damage. To this end, users are still granted edit rights for them to complete the assessment form as they move forward with the field mapping.

Meanwhile, PAI whose buildings were damaged as a result of the blast are trying to secure the necessary funds in order to start restoration work and resume their normal operation as much as is feasible. To this end, several administrative methods allow them to secure these funds on the one hand, and to entrust restoration and maintenance works, including works and supplies, on the other. Most of administrations and institutions that have funds available in their annual budgets can resort to transferring funds from one item to another and allocating the required amounts within the *force majeure* mechanisms stipulated by the laws in force. As for the disbursement, it is done most of the time by adopting the contract by mutual consent, as soon as possible. Administrations and institutions that do not have available funds have two options: either trying to obtain donations or requesting from the Ministry of Finance to secure additional funds for restoration through transfers from the general budget reserve.

Some administrations and institutions have already begun reconstruction efforts, such as the National Social Security Fund in Burj Hamoud, which is partially financing the operation itself, with the other half covered by the building's owner. As for the ER Department of Beirut's Governmental Hospital in Karantina, reconstruction is mostly financed by third parties such as NGOs and embassies. Other institutions have not started yet, but declare being ready to do so: The Institute of Finance Basil Fuleihan, located in the Nahr Beirut area, says that reconstruction would be financed from their own budget once it is set to launch. In most cases, however, administrations and institutions suffer from a complete lack of funds, and

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civil servants are sometimes relying on themselves. For instance, Civil Defense employees affirm resorting to the re-installation of windows at their own expense "*in fear of it resulting in the loss or theft of official and important documents.*" Staff in other administrations, such as the Ministry of Economy and Trade or the Lebanese University's faculty of Economics and Business Administration, are urging the need to facilitate access to funds as they fear being at risk of "*bodily harm due to unstable roofs,*

*lack of windows*". In addition to that, other employees highlight a "*decrease in productivity and efficient work due to absence of equipment such as computers and scanners.*" This showcases the importance of securing funds, since in some cases, "*taking out a loan would not even be of use due to the severity of the damages.*"

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