

Environmental Impact Assessment

Screening according to Schedule III of S.L. 549.46

Appropriate Assessment

Screening according to S.L. 549.44

Water Policy Framework

Screening according to S.L. 549.100

ERA Reference no.:	EA/00013/14
PA Reference no.:	PA/04687/10
Project Title:	Proposed scuttling of the M/T Hephaestus at a site off the south coast of Qala, Gozo to create a new diving attraction.
Location:	Site off the south coast of Qala, Gozo.
Screening date:	November 2021

I. BACKGROUND

1. Outline of Proposal

- 1.1 The proposal involves the scuttling of the former oil tanker M/T Hephaestus onto the sandy seabed off Il-Ġebbla tal-Ħalfa / Tal-Melħ, Qala, Gozo, to serve as a diving attraction (see Figure 1).
- 1.2 The vessel is 61.33 m long, has a maximum (moulded) breadth of 7.9 m and a (moulded) depth of 4.02 m (excluding the bridge deck and masts). The footprint of the vessel is approximately 500 m² (see Figure 2).
- 1.3 The vessel is proposed to be scuttled on a gently sloping sandy area of seabed, at a depth of approximately 30 – 35 m, about 450 m off the south coast of Qala, Gozo.
- 1.4 According to the PDS, no site preparations or shore infrastructure are required, as the dive will be a boat dive. Furthermore, in view of the presence of protected Neptune grass (*Posidonia oceanica*) meadows surrounding the sandy area of seabed, no anchoring of boats will take place. Instead, mooring buoys are proposed to be deployed for use by the dive boats.

1.5 In 2018, the vessel had run aground at Qawra Point, Malta, and severely damaged its hull. Cleaning interventions (including the removal of oils, oily water, and cleaning of the cargo tanks) and structural repairs (steel repairs, welding, assembly of structural frames and installation of reinforcing plates) have already been undertaken in 2018 in order to re-float the vessel and tow it to a shipyard. According to the Hazardous Waste Consignment Permit, 6 m³ of waste oil / oily water was removed from the vessel.

1.6 In terms of further preparation, stripping, cleaning, and structural preparation for scuttling are required. Such works are proposed to be carried out at a licensed shipyard, and include the removal of sharp or protruding elements, the removal or securing of movable parts (e.g. doors, hatches, etc.), the blocking up of small / confined spaces to prevent access, and the cutting of light holes in the hull and large diver entry / exit holes. In terms of cleaning, all solid and liquid potentially hazardous material will be removed, with cleaning operations guided by the *UNEP-MAP Updated Guidelines for Regulating the Placement of Artificial Reefs at Sea, Part-C - Placement of Vessels Hull and Superstructure: Vessels clean-up*. It is also being proposed to compile an inventory of potentially hazardous materials on board. According to the PDS, it is envisaged that materials to be removed will include:

- PCBs (polychlorinated biphenyls – toxic industrial compounds), at a concentration equal or greater than 50 parts per million (ppm);
- asbestos and asbestos-containing materials;
- hydraulic fluids, fuels and engine lubricating oils;
- batteries and accumulators;
- floatable materials not permanently attached to the vessel;
- loose domestic equipment;
- refrigerant gases;
- black and grey water; and
- chromated ballast water.

1.7 Once all preparatory works are completed, the vessel will be towed towards the designated site, and the vessel will be scuttled in a controlled descent manner. The PDS proposes the use of mooring blocks or floating devices for such scuttling.

1.8 With respect to the waste generated by the preparatory works, all materials will be separated at the shipyard and disposed of ashore, using licensed/approved contractors. None of the waste will leave the preparation/cleaning site unless contained and approved for disposal. An inventory of the wastes to be generated and certificates of disposal will be made available.



Figure 1 – Image of the M/T Hephaestus vessel (Source: PDS)

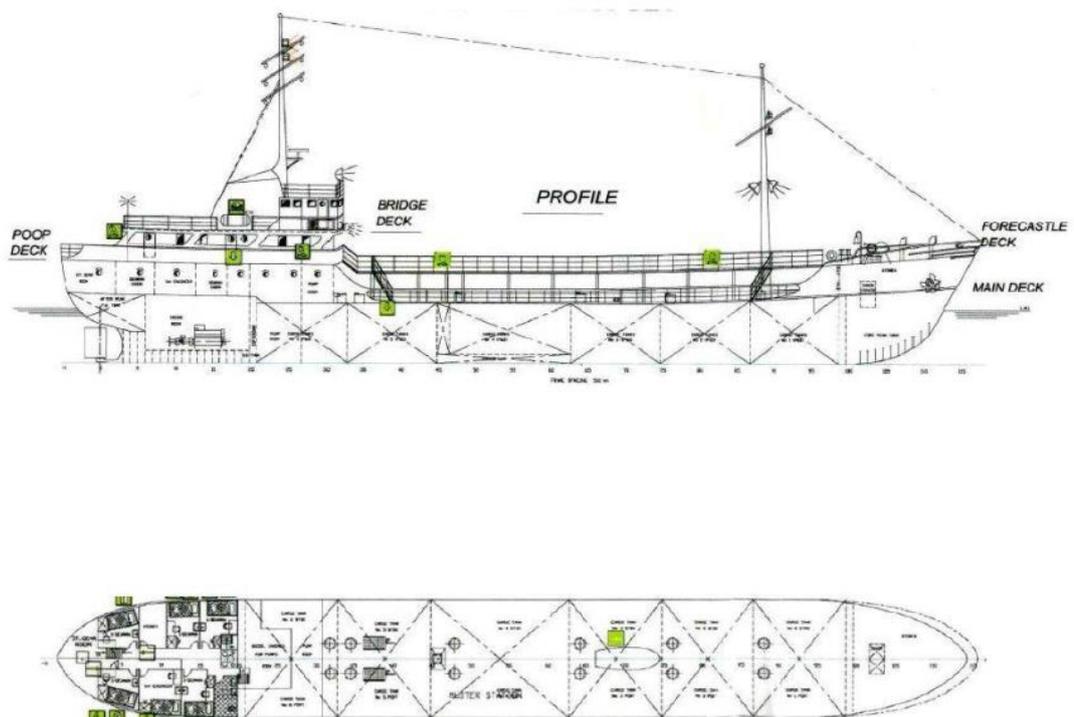


Figure 2 – Elevation and deck plan of the vessel (Source: PDS)

2. Site context

2.1 The site lies off the southern coast of Qala, Gozo, approximately 450 m from the nearest landfall at Tal-Melħ and 850 m from Il-Ġebbla tal-Falfa. The site is sheltered from the prevailing north-westerly and westerly winds and the islands of Comino and Cominotto also provide some shelter from the south and southwest respectively (see Figure 3 - 6).

2.2 The site lies on a gently sloping seabed with depths ranging between 30 and 35 m. The sea bottom at the site consists of a mixture of patches of bare sand and areas colonised by the seagrass *Posidonia oceanica*. The two main benthic assemblages recorded from the area are *Posidonia* beds (EUNIS A5.535) and infralittoral fine sand (EUNIS A5.23). In some areas, both habitat types were present together (see Figure 4 - 6).

2.3 The site is situated within two protected Natura 2000 sites, namely:

- MT00000105: Żona fil-Baħar bejn il-Ponta ta' San Dimitri (Għawdex) u il-Qaliet (Special Area of Conservation – SAC, and Site of Community Importance – SCI); and
- MT00000112: Żona fil-Baħar Madwar Għawdex (Special Protection Area – SPA).

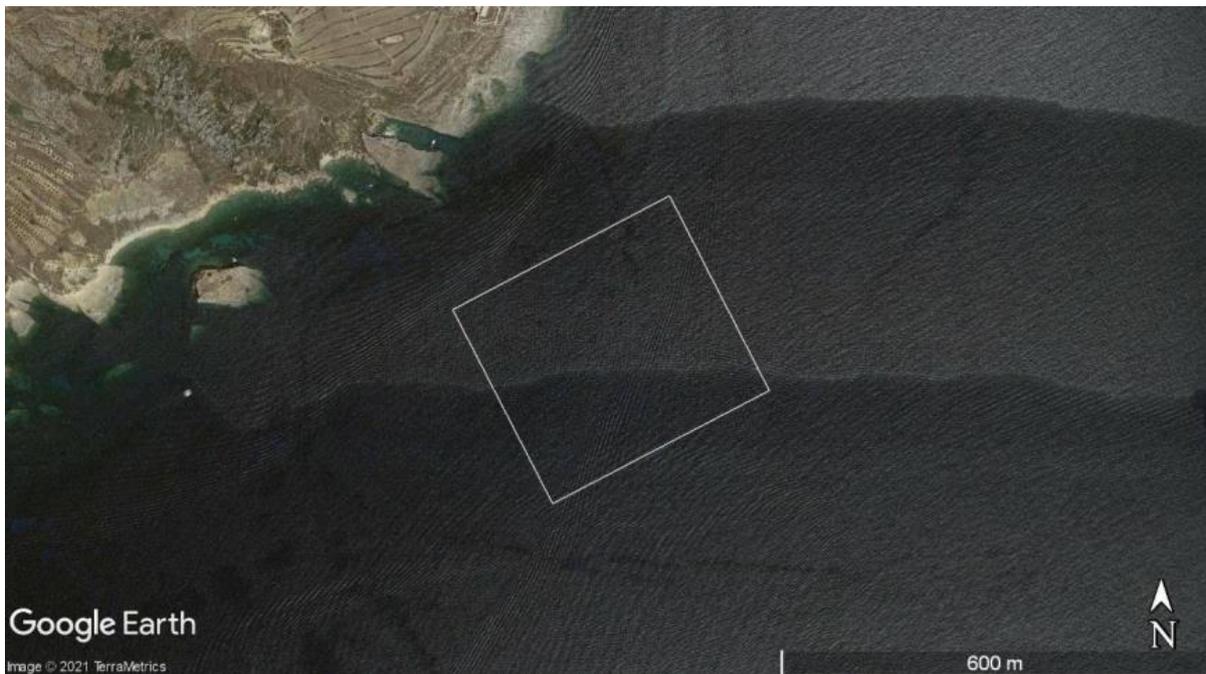


Figure 3 – Proposed search area for scuttling (Source: PDS)



Figure 4 – Benthic assemblages found within the search area. Proposed scuttling location marked in red (Source: PDS)

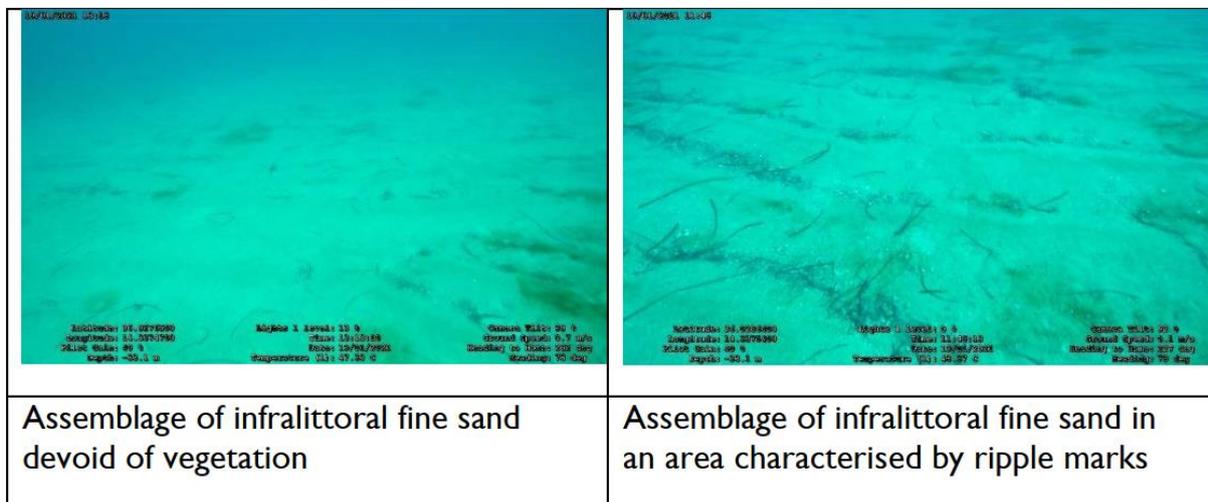


Figure 5 – Photographs of the bare sandy seabed area, proposed for the placement of vessel (Source: PDS)

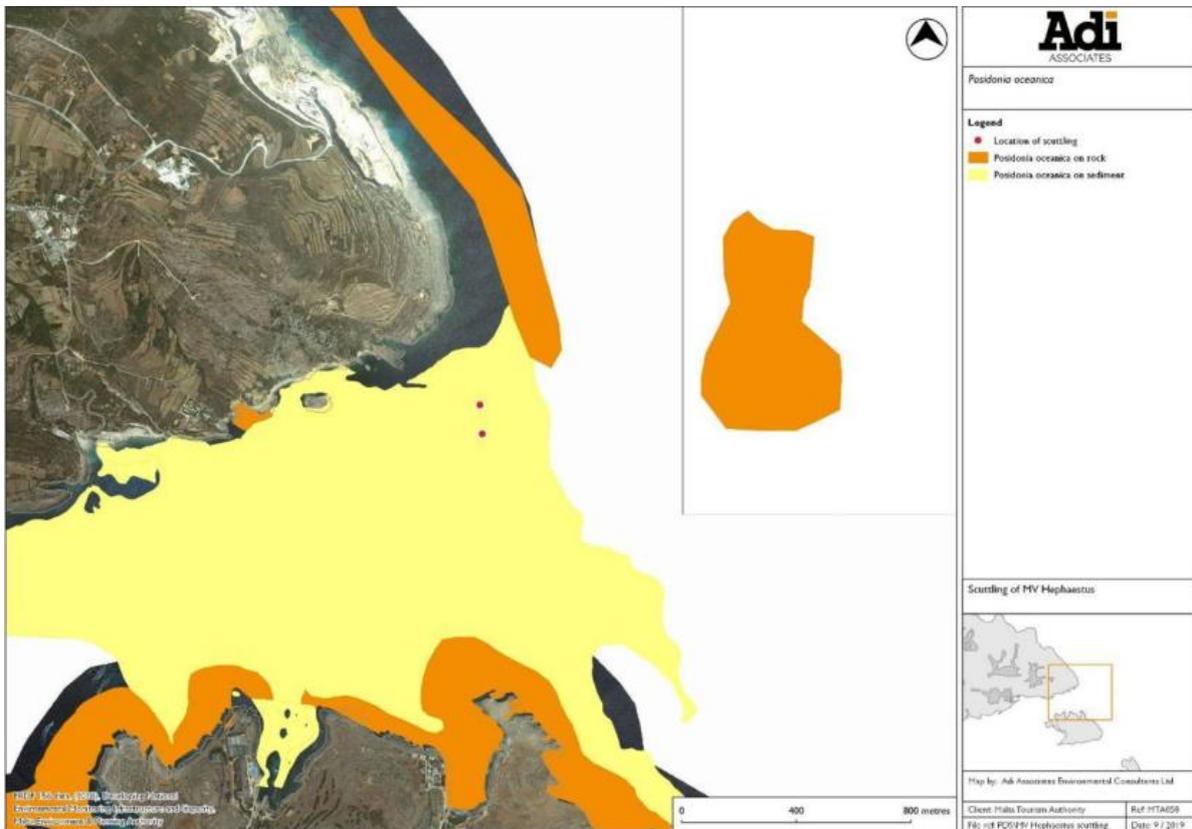


Figure 6 – Coarse data on *Posidonia oceanica* distribution (Source: PDS – Appendix: Benthic Survey)

3. Case history

3.1 This application previously proposed to scuttle a former patrol boat P33 at a site west of Reqqa Point, Gozo, near a dive site known as Billinghamurst's Cave, however, this proposal was objected to by the then MEPA, and reiterated by ERA in 2019, from an environmental point of view. An EIA Report was prepared, however, during review, environmental concerns were raised, and subsequently the proposal to scuttle the vessel in this location was abandoned (see Figure 7).

3.2 In 2021, the same applicant proposed to scuttle the P33 vessel off Żonqor Point, Marsaskala instead, for which permission was granted in July 2021, by virtue of PA/03601/21.

3.3 Subsequently, the applicant amended this application, PA/04687/10, with a change in vessel to the M/T Hephæstus and a change in location to the currently proposed site off Qala, Gozo.



Figure 7 – Location previously proposed for scuttling (Source: PDS)

4. Screening Criteria

4.1 EIA Screening

(citations refer to S.L. 549.46, except where otherwise specified):

The proposed development falls within the scope of the Environmental Impact Assessment Regulations (S.L. 549.46), notably in terms of the following Category II criteria in Schedule I: 6.3.2.1 *Formation, extension or alteration of artificial reefs, or the sinking of vessels on the seabed.* Therefore, the proposal is subject to screening in terms of the EIA Regulations.

4.2 AA Screening

(citations refer to S.L. 549.44, except where otherwise specified)

The proposal lies within the Natura 2000 sites MT00000105: Żona fil-Baħar bejn il-Ponta ta' San Dimitri (Għawdex) u il-Qaliet (Special Area of Conservation – SAC, and Site of Community Importance – SCI) and MT00000112: Żona fil-Baħar Madwar Għawdex (Special Protection Area – SPA). Thus, the proposal requires screening in terms of the Flora, Fauna and Natural Habitats Protection Regulations (S.L. 549.44).

4.3 Water policy Framework Screening

(citations refer to S.L. 549.100, except where otherwise specified)

The proposed development falls within the scope of the Water Policy Framework Regulations (S.L. 549.100) in view that the proposal is located within coastal water body MTC 103 – Il-Fliegu ta' Kemmuna, and in view of the nature of the proposal.

5. Documents used for screening

- Project Description Statement (PDS) which was referred directly to ERA on 14 October 2021, including a broad-brush benthic survey report (Appendix I to PDS) and a copy of the hazardous waste consignment form (Appendix II to PDS).

II. ASSESSMENT OF PROPOSAL

6. Assessment of Impacts and Ancillary Considerations

(Screening in terms of Schedule III of the EIA Regulations, S.L. 549.46)

General

6.1 As also mentioned in Section 3 (Case History) above, this application previously proposed to scuttle another vessel, the former patrol boat P33 (which in the meantime has been scuttled off Żonqor Point, Marsaskala by virtue of PA/03601/21), at a different location, namely Reqqa Point off the coast of Gozo. This proposal was subject to an Environmental Impact Assessment in view of unclear (and potentially adverse) impacts in terms of marine ecology, archaeology, wave and current regimes, and the quality of the water body and marine environment. However, the proposed scuttling at this particular location was objected to by the then MEPA, and reiterated by ERA in 2019, from an environmental point of view.

6.2 Following a preliminary search exercise for alternative scuttling locations, in consultation with ERA, an alternative site is now being proposed, for the scuttling of the M/T Hephaestus, namely the site off the south coast of Qala, which is subject to assessment.

Land and seabed use

6.3 The vessel is proposed to be placed on the seabed in a pristine marine area, which is still free from anthropogenic interventions. The impacts in terms of seabed use, due to placement of the vessel on the seabed (i.e. introduction of a new use) and its operations as a tourist attraction (presence of boats bringing divers to the site), are likely to be significant.

6.4 In addition, potential access restrictions, through the designation of a Conversation Area around the wreck may lead to an alleviation of fishing pressures within the said

Conservation Area, but also to a potential displacement of fishing pressures to other nearby areas, with its potential environmental implications.

6.5 On land, no interventions are proposed given that the wreck will be only accessible as a boat dive. In this regard, no impacts in terms of land use are envisaged, as long as boats will be departing from coastal locations with existing infrastructure (access, parking, etc.) and not from nearby unspoilt coastal sites.

Marine environment

6.6 The vessel is proposed to be placed on a patch of infralittoral fine bare sand, surrounded by seagrass (*Posidonia oceanica*) patches and continuous seagrass meadows. The placement of the vessel on the seabed will inevitably lead to the burying and permanent loss of any habitat and all immobile species located within the footprint of the vessel. Such direct impacts may potentially have further repercussions on the dynamics of the local ecosystem.

6.7 Furthermore, the presence of the vessel on the seabed may lead to localised changes in the currents and sediment movement patterns around the wreck, with their potential consequential impacts from resulting accumulation of sediment or scouring on habitat and species that are sensitive or of conservation/ecological importance (including *Posidonia oceanica*).

Environmental risks

6.8 Inaccurate scuttling procedures, adverse weather conditions during scuttling, and temporary seabed disturbance may pose potentially significant temporary and/or permanent impacts on the marine environment.

6.9 Potentially incomplete cleaning of the vessel, or release of harmful substances due to degradation of the vessel over time, may result in contamination of the marine environment.

6.10 In addition, instability of the wreck, due to incorrect placement or storm conditions, and any consequential changes in the position of the wreck, may lead to impacts on the aforementioned habitats and species, due to direct burying or alterations to the currents and sediment movement patterns around the wreck.

Waste management

6.11 The vessel would require depollution and cleaning of all solid and liquid potentially hazardous materials. Such cleaning would need to take place before the vessel is transported from the shipyard to the scuttling location and be in line with the requirements guided by the UNEP-MAP Updated Guidelines for Regulating the Placement of Artificial Reefs at Sea, Part-C - Placement of Vessels Hull and Superstructure. An inventory of all the waste that would need to be removed from the vessel is also required. The various

wastes generated during the cleaning process would need to be disposed of at approved facilities, in line with the Waste Regulations (S.L. 549.63).

Screening outcome

The above screening concludes that the proposed development qualifies for an EIA. The EIA needs to address at least the following aspects:

- Land and sea uses;
- Marine Ecology;
- Water Quality
- Hydrodynamics and sediment transport;
- Waste Management; and
- Environmental risks.

Additional environmentally relevant topics may be identified through the relevant scoping stages (e.g. during public consultation, or suggested by the relevant EIA consultants).

7. Screening in terms of the Flora, Fauna and Natural Habitats Protection Regulations (S.L. 549.44):

7.1 The proposal lies within the following Natura 2000 sites:

- MT00000105: Żona fil-Baħar bejn il-Ponta ta' San Dimitri (Għawdex) u il-Qaliet (Special Area of Conservation – SAC, and Site of Community Importance – SCI); and
- MT00000112: Żona fil-Baħar Madwar Għawdex (Special Protection Area – SPA).

7.2 The above-mentioned Special Area of Conservation (SAC) includes the following Annex I habitats, that require protection; habitat type 1110 (Sandbanks which are slightly covered by sea water all the time); habitat type 1120 (Posidonia beds – *Posidonia oceanica*); habitat type 1170 (Reefs); and habitat type 8330 (Submerged or partially submerged sea caves). In addition, the Loggerhead Sea turtle (*Caretta caretta*) and Maltese top shell (*Steromphala (=Gibbula) nivosa*) are two Annex II protected species also present within this protected site.

7.3 In terms of the Special Protection Area (SPA) designation, the Annex II protected Scopoli's shearwater (*Calonectris diomedea*) and Yelkouan Shearwater (*Puffinus yelkouan*) are also found within this protected area.

7.4 In view of the above designations, this proposal has been screened in terms of Regulation 19 of S.L. 549.44.

7.5 From the information submitted to ERA, noting the proposed location for scuttling in close proximity to protected habitats, it cannot be ascertained upfront that the proposed development will not adversely affect the integrity of the aforementioned protected sites, especially in terms of:

- Potential impacts on protected species and habitats from the placement of the vessel on the seabed;
- Potential impacts on protected species and habitats due to potential changes in the currents and sediment movement patterns, release of contaminants, or other adverse effects caused by the wreck; and
- Potential disturbance to protected species and habitats, due to introduction of this tourist attraction and the frequent visitation of the wreck by divers.

7.6 In this regard, the proposal requires the submission of an Appropriate Assessment (AA) in terms of Regulation 19(1) of the Flora, Fauna and Natural Habitats Protection Regulations, 2006 (S.L. 549.44).

8. Screening in terms of Water Policy Framework Regulations (S.L. 549.100):

8.1 As mentioned in Sections 6 and 7 above, the proposal may potentially lead to localised effects on the currents and sediment movement patterns around the wreck, which may in turn affect *Posidonia oceanica* (being a Biological Quality Element), however such changes are unlikely to affect the Ecological Status of the entire water body, MTC 103, within which the site is situated.

8.2 Therefore, no further assessment in terms of the Water Framework Directive (WFD) and the Marine Strategy Framework Directive (MSFD) is considered necessary.

III. ERA Conclusion and Recommended Way Forward

The above screening concluded that the proposed development qualifies for an EIA and AA. Further processing of the planning application should await the outcome of these studies. ERA will be issuing its position and recommendations following the outcome of this assessment.

Screening Disclaimer

The above screening results, the ensuing conclusions and recommendations are without prejudice to any required changes or updates should the development proposal be eventually modified or should the information/assumptions provided turn out to be incorrect. Any deviations of the proposal from this submission would need to be re-assessed and the merits of this screening would need to be re-opened.