COMMISSION IMPLEMENTING REGULATION (EU) 2021/1328

of 10 August 2021

specifying the infrastructure requirements applicable to certain categories of dual-use infrastructure actions pursuant to Regulation (EU) 2021/1153 of the European Parliament and of the Council

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) 2021/1153 of the European Parliament and of the Council of 7 July 2021 establishing the Connecting Europe Facility and repealing Regulations (EU) No 1316/2013 and (EU) No 283/2014 ([1]) and in particular Article 12(2) thereof,

Whereas:

(1) One of the specific objectives of the Connecting European Facility is to adapt parts of the trans-European transport network for a dual-use of the transport infrastructure in view of improving both civilian and military mobility. Actions or specific activities within an action, supporting parts, new or existing of the trans-European transport network suitable for military transport, in order to adapt it to dual-use transport infrastructure requirements, are eligible to receive Union financial assistance under Regulation (EU) 2021/1153 under certain conditions.

(2) The transport infrastructure requirements applicable to certain categories of dual-use infrastructure actions should be specified. The dual-use transport infrastructure requirements should be based on the information contained in the updated military requirements ([2]) and the gap analysis ([3]), and the results of consultations with the representatives of European and international transport associations should be taken into account.

(3) The dual-use requirements should represent generic technical values and standards for transport infrastructure projects, to be taken into account with regard to the actions under Regulation (EU) 2021/1153, contributing to the adaptation of the TEN-T core or comprehensive networks with the purpose of enabling a civilian-defence dual use of the infrastructure.

(4) The measures provided for in this Regulation are in accordance with the opinion of the Connecting Europe Facility Coordination Committee, established by Regulation (EU) 2021/1153,

HAS ADOPTED THIS REGULATION:

Article 1

The transport infrastructure requirements provided for in Article 12(2) of Regulation (EU) 2021/1153 shall be as set out in the Annex.

Article 2

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

([1]) OJ L 249, 14.7.2021, p. 38.
([2]) Military Requirements for Military Mobility within and beyond the EU (ST 11373/19; 19.7.2019)
([3]) 'Military requirements and trans-European transport network: gap analysis (SWD(2019) 175 final)' as well as 'the updated gap analysis between military requirements and trans-European transport network requirements' (SWD(2020) 144 final).

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 10 August 2021.

For the Commission
The President
Ursula VON DER LEYEN

ANNEX

Table 1

Airports and air traffic management

No	Dual-use requirement	Dual-use value	Remark
1	Operating Periods	Construction or expansion of infrastructure and connections to multimodal transport and equipment allowing capability for 24/7 operations/ Day/Night/All Weather operations.	Includes rail and pipeline connections for fuel (conditional to fuel for both military and civilian aircraft to be delivered).
2	Base Service Operations 24/7	Capability for Day/Night/All Weather operations.	
3	Air Traffic Control	Air Traffic Control infrastructure with sufficient capacity to manage airfield day and night operations.	To be understood according to ICAO and EU Regulations as well as Eurocontrol CUMA Guidelines.
4	Air Assets per day	Infrastructure capacity of handling: Aircraft per day: Minimum 6 per day. Assumption for Wide-Body Aircraft: 4 concurrent maximum on ground parking on the apron.	
5	Runway Length	Minimum Requirement: 3 000 m. Recommended: 3 500 m. To be determined in each Member State where a 2 800 m runway length could be sufficient.	Suitable for Aircraft Category Strategic Transportation as well as A330/A400M/ IL76/B747/An225/C5/C17 aircraft.
6	Runway Width	45 m up to 60 m. To be determined by Member States where the 60 m width is necessary.	Suitable for Aircraft Category Strategic Transportation as well as A330/A400M/ IL76/B747/An225/C5/C17 aircraft.
7	Runway Surface	May be rigid or flexible type. To be determined in each Member State where the 150m at the end of the runway should be rigid to combat the effects of jet engine efflux.	
8	Taxiway	Width: 22,5 m, may be rigid or flexible type.	
9	Runway Pavement Strength	Sufficient for Strategic Wide Body Aircraft	This requirement can be delivered in accordance with ICAO and EU regulations.
10	Apron – Length	Minimum of 190 m.	
11	Apron Width	Minimum of 350 m.	

12	Apron Capacity	66 500 m².	
13	Apron Pavement Classification Number (PCN) ([1])	Driven by Aircraft Classification Number (ACN) ([2]) deriving from the subgrade type.	The ACR is a single unit rating expressing the related effect of an aircraft on a basement for a specific subgrade strength indicating a particular basement thickness (measured by its PCR). This requirement can be delivered in accordance with ICAO and EU regulations. The relation between ACR/PCR is an updated methodology of the Aircraft Classification Number (ACN) and Pavement Classification Number (PCN) methodology. As of November 2024, the methodology for the assessment and reporting of airfield pavement bearing capacity will be expressed as a relation between the Aircraft Classification Rating and Pavement Classification Rating (ACR/PCR), instead of the relation between the Aircraft Classification Number and Pavement Classification Number (ACN/PCN). The method has been approved by the ICAO Airport Design & Operations Panel (ADOP) and is since July 2020 the new ICAO Pavement Rating System. Adaptations of national documentations and design specificities will take place during a transition period between 2020 and 2024.
14	Runway Snow and Ice Equipment and De-Icing products	Storage enclosed area of 180 m².	
15	Crash Fire Rescue (Category)	Steel Frame or Masonry construction facility with storage (minimum 200 m² with internal bay space of 98 m²) to store both crash and fire rescue vehicles.	

([1]) The Pavement Classification Rating (PCR) has replaced the Pavement Classification Number (PCN) methodology. PCN remains valid during the transition phase until 2024.

([2]) The Aircraft Classification Rating (ACR) has replaced the Aircraft Classification Number (ACN) methodology. ACN remains valid during the transition phase until 2024.

Table 2

Seaports

No	Dual-use requirement	Dual-use value	Remark
1	Sea port operating period	Construction or expansion of infrastructure to multimodal transport network access, and equipment that allows operations 24/7 in all-weather conditions.	Includes icebreaking capacity and equipment to remove snow in a port. Buildings, storage and warehouse facilities, cranes, conveyors, and other devices for moving freight, and mobile assets such as locomotives shall not be included. Actions shall not provide selective advantage to a particular operator or group of operators and shall be accessible on a non-discriminatory basis.
2	Number of Berths	3.	The berths have to be within a port as defined in the geographic data of the military requirements. The berths do not necessarily have to be situated next to each other.
3	Beam	32 m.	Entrance to seaport.
4	Vessel acceptance draught	Minimum 12 m at mean low water.	Entrance to seaport.
5	Port depth	Minimum 12 m, recommended 14 m to allow 2 m draught clearance. To be determined in each Member State where a 12 m port depth could be sufficient. 1 m draught clearance could be sufficient in ports without tide effect.	Entrance to seaport.
6	Berth length	Minimum 310 m and up to 340 m per vessel.	
7	Port berth beam	Minimum 32 m	For large/medium ships category at berth.
8	Port berth type	Should accommodate the following types of ships: Barge, break-bulk, container, passengers, RoRo, tanker.	
9	Berth draught	Minimum 12 m, recommended 14 m. To be determined in each Member State where a 12 m berth draught depth would be sufficient.	Needed for large ships category and very large RoRo.
10	Offloading capabilities	2 ships simultaneously.	
11	Number of rail spurs/heads	3.	Number of railheads needed.

Table 3

Railways

No	Dual-use requirement	Dual-use value	Remark
1	Railhead service operating period	Construction or expansion of infrastructure to multimodal transport network access, and equipment that allows operations 24/7 in all-weather conditions.	
2	Railway passengers assets	Infrastructure capable of handling railway passenger's carriage cars (capable of moving passengers), including double-deckers, for loading minimum 80 PAX on each; minimum number of carriages per day: 6 pieces.	
3	Railway stations	Platform infrastructure capable of managing 3-4 trains (10 x double-decker carriages or equivalent) per station per day (5k PAX per day per station).	
4	Railhead operations	Infrastructure capable of handling at least 3 freight trains simultaneously in terminal locations.	Equipment traveling by rail will be subjected to careful load and journey planning to ensure compliance with available MS rail gauge, infrastructure, routes and tunnels.
5	Electrification system availability	Permanent with back-up system regardless of the energy source.	Concerns back-up systems for stations or multimodal handling facilities.
6	Bi-polarization	Yes for access.	Pertains to safety systems and track circuits to detect trains on the tracks, and if the railhead allows one or more tracks on a multiple track railway to be operated in either direction, whether for regular or emergency use.
7	Lighting availability	24/7 lighting capability in stations and terminals.	
8	Track gauge	1 435 mm. Ideal for standard continuous rail network pan-Europe and highly desirable for military mobility. In instances where there is a clear benefit for both the civilian and military sectors, 1 520 /1 524 mm and 1 668 mm railway gauges can be accepted.	
9	Loading gauge	GC standard recommended. To be determined in each Member State where a different loading gauge enveloping P-400 and that is in line with the rail TSIs would be sufficient.	Large container loading gauge. GC fits the UIC P-400 standard.

10	Max cargo height	4,5 m.	The figure includes the safety margin.
11	Max cargo width	3,15 m in normal circumstances. Up to 3,75 m in exceptional cases, where there is a clear civilian benefit and the TSIs are respected.	Desirable width would be up to 4,5 m for military movement.
12	Max cargo length	18,75 m.	
13	Rail axle load in tonnes	Minimum 22.5 t/axle on the core TEN-T; recommended 25 t/axle.	The axle load requirement for the TEN-T core rail network including bridges is minimum 22,5 t/axle. Of note, upgrades of axle weight to minimum 25 t/axle could be beneficial for civilian and military movements. Currently military movement is at the limit of existing gross weight.
14	Max train length	Minimum 740 m.	Regulation (EU) No 1315/2013 of the European Parliament and of the Council ([1]) requires the capacity to operate at least 740 m long trains. The length of a moving train varies (e.g. when breaking or accelerating). The dual-use requirement is therefore congruent with the military requirement.
15	Siding spurs	Minimum 3, each minimum ≥ 300 m.	Can either be in the vicinity of or within terminal locations.

([1]) Regulation (EU) No 1315/2013 of the European Parliament and of the Council of 11 December 2013 on Union guidelines for the development of the trans-European transport network and repealing Decision No 661/2010/EU (OJ L 348, 20.12.2013, p. 1).

Table 4

Roads

No	Dual-use requirement	Dual-use value	Remark
1	Road classification	Single lane: 3,5 m – 5,5 m Single flow 5,5 m – 7,3 m Double flow ≥ 7,3 m.	Single flow – isolated vehicles pass or travel in the opposite direction at set points/areas. Double flow – 2 columns of vehicles travel concurrently and at least 2 lanes wide (ideally no narrower than 8,2 m). Projects related to using hard shoulders as additional lanes are excluded.
2	Route types	Type X – all-weather well maintained route, usable all year to maximum capacity.	Type X is preferred for military movement, with waterproof surfaces generally unaffected by precipitation or temperature changes.

3	Road gross weights	130 t.	130 t does not refer to the free circulation of vehicles with a gross weight of 130 t. This dual-use requirement refers to the capacity of road surfaces to withstand movements or transport of the overweight military assets on an occasional basis. The civilian limitation 44 t (as indicated in Council Directive 96/53/EC [1]) should therefore allow for occasional movements of overweight transport assets of up to 130 t with a maximum axle load of 12,23 t/axle. Such occasional movements (both military and civilian) do most likely require special permits or waivers and appropriate mitigation measures, which are exceptionally determined by the MS.
4	Bridge gross weights	130 t.	130 t does not refer to the free circulation of vehicles with a gross weight of 130 t. This dual-use requirement refers to bridges' capacity to withstand movements or transport of the overweight military assets on an occasional basis. Such occasional movements (both military and civilian) do most likely require special permits or waivers and appropriate mitigation measures, which are exceptionally determined by the Member States. Bridges shall be capable of allowing a gross weight of 130 t with a maximum axle load of 12,23 t/axle (Directive 96/53/EC allows up to 11,5 t/axle with the exception of France, where the allowed load is 13 t/axle). In circumstances where a single vehicle weighs 130 t, it will be necessary to ensure that appropriate mitigation measures such as speed, distance to other vehicles have been applied and, if necessary, single traffic flow are imposed for bridge use. Road bridges are designed to withstand fully loaded vehicles across their entire length on each lane. Therefore, if a bridge can support multiple trucks weighing 44 t simultaneously, it should also be able to support an occasional total gross weight of 130 t, if the appropriate mitigation measures such as speed, distance between vehicles and distance between the vehicles' axles are ensured.

5	Maximum cargo height	4.5 m. Tunnel restrictions need consideration in route planning particularly for flatbed vehicles, trailers and dangerous goods. To be determined in each country if and where 4.5 m shall be applicable.	This includes the combination of the height of the vehicle cargo-deck, plus the cargo height and an overhead safety clearance margin. Directive 96/53/EC allows up to 4 m vehicle height. Upon receiving an exceptional transport permit, 4.5 m height is possible (4.35 m transport height + 0.15 m for suspension and vehicle movements).
6	Maximum cargo width	4.5 m.	As indicated in Directive 96/53/EC, the maximum vehicle width of an authorized vehicle is 2,55 m. Typically, wheeled vehicles require 3.5 m and tracked vehicles 4.5 m for military transport. Such occasional movements (both military and civilian) do most likely require special permits or waivers and appropriate mitigation measures, which are exceptionally determined by the Member States.
7	Maximum cargo length	18,75 m up to 27,5 m	Maximum vehicle length is 18,75 m with an extension up to 25,03 m where infrastructure development allows. Longer vehicles may be allowed to circulate upon receiving an exceptional transport permit. Cargo weighing over 130 t will generally require an 8-tyre x 4-axle tractor + an 8-axle trailer combination. In most cases, a traditional 8-axle semi-trailer suffices for dual-use purposes. However, when for practical reasons (e.g. bridge clearance height) a low-bed trailer is required, this will necessarily be a 3-bed-5 semi-trailer, whose length is around 22,5 m. Coupled to an 8-tyre x 4-axle tractor unit, the total length of the combined vehicle will be around 27 m. The use of low-bed trailers brings benefits when it comes to extra bridges and flyover height clearances, as axle loads of a longer vehicle will be distributed on a larger area, thus reducing the point loadings on bridges and overpasses. Most Member States already accept 27,5 m vehicles as part of the exceptional transport permits they issue.
8	Turning radius for heavy equipment transport	12,5 m up to 15,5 m. To be determined in each Member State.	The requirement in Directive 96/53/EC is that road vehicles must be able to turn within an outer radius of 12,5 m.

([1]) Council Directive 96/53/EC of 25 July 1996 laying down for certain road vehicles circulating within the Community the maximum authorized dimensions in national and international traffic and the maximum authorized weights in international traffic (OJ L 235, 17.9.1996, p. 59).

Table 5

Inland waterways

No	Dual-use requirement	Dual-use value	Remark
1	Locks	In accordance with the UNECE 'Blue Book' Standards ([1])	
2	Draught	In accordance with the UNECE 'Blue Book' Standards ([2])	
3	Berth	2	Number of berths.
4	Offloading Capabilities	2 barges simultaneously	
5	Bridge clearance	3,5 m	In line with Regulation (EU) No 1315/2013.

([1]) Inventory of main standards and parameters of the E waterway network 'Blue Book' (ECE/TRANS/SC.3/144/Rev.3.), by the United Nations Economic Commission for Europe. The dual-use requirement should be read in conjunction with this document.
([2]) Ibid.

Table 6

Multimodal equipment handling (road, rail, maritime and inland waterways)

No	Dual-use requirement	Dual-use value	Remark
1	Node connection	Required at seaport/airport/inland waterway/railway head/main roads where applicable including cross-decking loading points across multi-modal transport means	
2	Loading ramps and handling equipment/ Parking capacity	Sufficient number of loading ramps (fixed) capable of supporting 100 t cargo and vehicles up to 120 t including Main Battle Tanks with a maximum axle load of 12,23 t/axle (road) and minimum 22,5 t/axle (rail). Handling equipment particular for cross-connection to multimodal nodes (rail, air, seaport (LoLo/RoRo) and inland waterways). Parking capacity capable for temporary hold rolling stock and general cargo. Actions relating to fixed infrastructure supporting the movement of road, rail, maritime and inland waterways assets in multimodal equipment handling facilities.	Suitable for freight containers meeting the definition of the ISO 1496-1:2013 Series 1 standard. Road ramps should have ability to handle containers, heavy equipment and general cargo. Buildings, storage and warehouse facilities, cranes, conveyors, and other devices for moving freight, and mobile assets such as locomotives are excluded. Actions shall not provide selective advantage to a particular operator or group of operators and shall be accessible on a non-discriminatory basis.

Table 7

Cybersecurity

No	Dual-use requirement	Dual-use value	Remark
1	Cybersecurity	Cybersecurity equipment, solutions and systems directly related to project proposals linked to the resilience of dual-use infrastructure, where it is appropriate.	