

Result summary

Dek bestaande fietsbrug te Sportlaan

Gemeente Dongen

Calculation number: EPD-NIBE-20201012-7759

Generation on: 08-06-2021

Issue date:

Valid until:

Status: in-progress

R<THiNK



1 Dek bestaande fietsbrug te Sportlaan

1.1 COMPANY INFORMATION / DECLARATION OWNER

Manufacturer: Gemeente Dongen

Production Location: Gemeente Dongen

Address: Hoge Ham 62, 5104 JJDongen

E-mail: info@dongen.nl

Website: www.dongen.nl

1.2 EPD INFORMATION

Calculation number: EPD-NIBE-20210527-19771

Date of issue:

End of validity:

Version NIBE's EPD Application: v2.0

Version database: v3.03 (2021-03-26)

PCR: NMD Determination method Environmental performance Construction works v1.0

July 2020 | EN15804+A1

1.3 VERIFICATION OF THE DECLARATION

CEN standard EN 15804:2012 serves as the core PCR.

Independent verification of the declaration. according to EN ISO 14025:2010.

Internal External

1.4 DECLARED UNIT

Bestaande (vaste) houten fietsbrug Gemeente Dongen

Deze LCA betreft de referentieberekening de te vervangen fietsbrug. Eenheid is 1 p (piece)

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1.5 SCOPE OF DECLARATION

A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	X	X	X	MND	MND	MND	MND	X	X	X	X	X

(X = included, MND = module not declared)

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1.6 PRODUCT DESCRIPTION

Brugdek: hout Azobé

slijtlaag: epoxy steenslag: Nederlandse steenslag (Cascade)

Afval tijdens constructie in A-3 is gezet op 5%

Afval 3% voor prefab producten (conform Bepalingsmethode)

Deze LCA betreft 1 levenscyclus van 30 jaar: De projectlevensduur is 60 jaar. De gehele brug wordt in tussentijd geheel vervangen; 60 jaar is in dit geval 2 maal A t/m D

1.7 DESCRIPTION OF THE MANUFACTURING PROCESS

Constructie in A5 en sloop in C1 is gebaseerd op een prefab brug. De brug wordt geplaatst met een mobiele kraan. Het verbruik is gehaald uit algemene bronnen en is gezet op 20 liter diesel per uur (160 liter per 8 uur). Er is gerekend met 1 dag plaatsen/slopen. Het aandeel hout van het dek t.a.v. de gehele brug is 38%

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1.8 RESULTS

Environmental effects	Unit	A1	A2	A3	A4	A5	B1	B2	B3	C1	C2	C3	C4	D	Total
ADPE	Kg Sb	8.10E-4	1.10E-4	4.48E-5	1.10E-4	1.03E-4	0.00E+0	0.00E+0	0.00E+0	6.73E-5	8.69E-5	2.46E-5	2.10E-6	-1.43E-4	1.22E-3
ADPF	Kg Sb	3.63E+0	2.89E-1	1.92E-1	2.89E-1	1.52E+0	0.00E+0	0.00E+0	0.00E+0	1.38E+0	2.28E-1	7.78E-2	1.98E-2	-4.19E-1	7.22E+0
GWP	Kg CO2 Equiv.	5.64E+2	3.86E+1	3.16E+1	3.86E+1	2.23E+2	0.00E+0	0.00E+0	0.00E+0	2.00E+2	3.05E+1	5.35E+1	1.12E+1	-6.92E+1	1.12E+3
ODP	Kg CFC-11 Equiv.	6.74E-5	7.20E-6	3.14E-6	7.20E-6	3.90E-5	0.00E+0	0.00E+0	0.00E+0	3.62E-5	5.70E-6	1.50E-6	4.35E-7	-2.00E-5	1.48E-4
POCP	Kg Ethene Equiv.	4.94E-1	2.29E-2	1.79E-2	2.29E-2	2.22E-1	0.00E+0	0.00E+0	0.00E+0	2.02E-1	1.81E-2	5.21E-2	3.59E-3	-2.40E-1	8.15E-1
AP	Kg SO2 Equiv.	4.47E+0	1.67E-1	1.79E-1	1.67E-1	1.68E+0	0.00E+0	0.00E+0	0.00E+0	1.51E+0	1.32E-1	2.79E-1	1.10E-2	-1.53E+0	7.06E+0
EP	Kg PO43- Equiv.	6.02E-1	3.37E-2	1.30E-2	3.37E-2	3.65E-1	0.00E+0	0.00E+0	0.00E+0	3.41E-1	2.67E-2	7.26E-2	4.37E-3	-4.94E-1	9.98E-1
HTP	kg 1.4 DB	2.92E+2	1.58E+1	1.14E+1	1.58E+1	8.36E+1	0.00E+0	0.00E+0	0.00E+0	7.19E+1	1.25E+1	3.38E+1	9.59E-1	-1.31E+2	4.07E+2
FAETP	kg 1.4 DB	2.61E+1	4.59E-1	1.22E+0	4.59E-1	1.88E+0	0.00E+0	0.00E+0	0.00E+0	1.00E+0	3.64E-1	3.73E-1	1.55E-2	-2.90E+0	2.89E+1
MAETP	kg 1.4 DB	1.47E+4	1.64E+3	7.91E+2	1.64E+3	4.02E+3	0.00E+0	0.00E+0	0.00E+0	3.38E+3	1.30E+3	1.12E+3	6.36E+1	-3.07E+3	2.56E+4
TETP	kg 1.4 DB	8.66E-1	5.45E-2	7.47E-3	5.45E-2	1.53E-1	0.00E+0	0.00E+0	0.00E+0	1.19E-1	4.32E-2	4.68E-2	3.01E-3	-8.91E-1	4.56E-1

ADPE=Depletion of abiotic resources-elements | ADPF=Depletion of abiotic resources-fossil fuels | GWP=Global warming | ODP=Ozone layer depletion | POCP=Photochemical oxidants creation | AP=Acidification of soil and water | EP=Eutrophication | HTP=Human toxicity | FAETP=Ecotoxicity, fresh water | MAETP=Ecotoxicity, marine water (MAETP) | TETP=Ecotoxicity, terrestrial

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Parameter	Unit	A1	A2	A3	A4	A5	B1	B2	B3	C1	C2	C3	C4	D	Total
PERE	MJ	5.78E+1	6.31E+0	-9.82E+2	6.31E+0	1.95E+1	0.00E+0	0.00E+0	0.00E+0	1.69E+1	5.00E+0	6.63E+0	6.69E-1	-2.03E+4	-2.12E+4
PERM	MJ	0.00E+0	0.00E+0	-5.18E+1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	-1.07E+3	-1.12E+3
PERT	MJ	8.65E+4	6.31E+0	3.34E+3	6.31E+0	2.74E+3	0.00E+0	0.00E+0	0.00E+0	1.69E+1	5.00E+0	6.63E+0	6.69E-1	-2.03E+4	7.22E+4
PENRE	MJ	1.28E+3	6.41E+2	8.70E+1	6.41E+2	3.20E+3	0.00E+0	0.00E+0	0.00E+0	3.10E+3	5.07E+2	1.57E+2	4.37E+1	-9.14E+2	8.74E+3
PENRM	MJ	1.72E+2	0.00E+0	8.62E+0	0.00E+0	5.43E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.86E+2
PENRT	MJ	7.86E+3	6.41E+2	4.16E+2	6.41E+2	3.41E+3	0.00E+0	0.00E+0	0.00E+0	3.10E+3	5.07E+2	1.57E+2	4.37E+1	-9.14E+2	1.59E+4
SM	Kg	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
RSF	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
NRSF	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
FW	M3	2.69E+0	1.14E-1	1.30E-1	1.14E-1	5.15E-1	0.00E+0	0.00E+0	0.00E+0	4.00E-1	9.00E-2	5.99E-1	4.22E-2	-9.53E-1	3.74E+0
HWD	Kg	1.25E-2	3.83E-4	-1.17E-3	3.83E-4	1.74E-3	0.00E+0	0.00E+0	0.00E+0	1.30E-3	3.03E-4	4.24E-4	3.26E-5	-3.83E-2	-2.24E-2
NHWD	Kg	9.17E+1	3.67E+1	1.51E+1	3.67E+1	1.43E+1	0.00E+0	0.00E+0	0.00E+0	3.11E+0	2.90E+1	9.26E+0	1.53E+2	-1.80E+1	3.71E+2
RWD	Kg	3.83E-2	4.06E-3	2.09E-3	4.06E-3	2.18E-2	0.00E+0	0.00E+0	0.00E+0	2.03E-2	3.21E-3	4.88E-4	2.48E-4	-4.55E-3	9.00E-2
CRU	Kg	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
MFR	Kg	0.00E+0	0.00E+0	2.70E+1	0.00E+0	1.70E+1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	5.40E+2	0.00E+0	0.00E+0	5.84E+2
MER	Kg	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
EE	MJ	0.00E+0	0.00E+0	4.36E+2	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	8.99E+3	9.43E+3
EET	MJ	0.00E+0	0.00E+0	2.76E+2	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	5.69E+3	5.97E+3
EEE	MJ	0.00E+0	0.00E+0	1.60E+2	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	3.30E+3	3.46E+3
SP	s€	s€ 81,62	s€ 4,60	s€ 3,62	s€ 4,60	s€ 29,82	s€ 0,00	s€ 0,00	s€ 0,00	s€ 26,58	s€ 3,64	s€ 7,73	s€ 0,75	s€ -26,79	s€ 136,17

PERE=renewable primary energy ex. raw materials | PERM=renewable primary energy used as raw materials | PERT=renewable primary energy total | PENRE=non-renewable primary energy ex. raw materials | PENRM=non-renewable primary energy used as raw materials | PENRT=non-renewable primary energy total | SM=use of secondary material | RSF=use of renewable secondary fuels | NRSF=use of non-renewable secondary fuels | FW=use of net fresh water | HWD=hazardous waste disposed | NHWD=non hazardous waste disposed | RWD=radioactive waste disposed | CRU=Components for re-use | MFR=Materials for recycling | MER=Materials for energy recovery | EE=Exported energy | EET=Exported Energy Thermic | EEE=Exported Energy Electric

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1.9 ADDITIONAL INFORMATION

Allocation

There is no allocation applied for the environmental profiles / datasets used in this LCA.

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