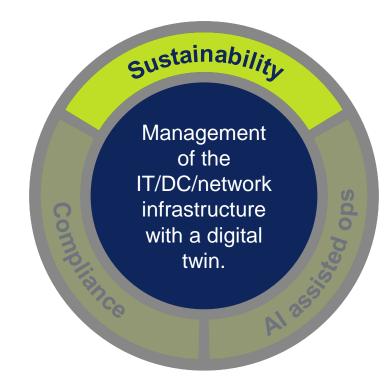




// FNT Sustainability Management Aspects: How to reduce environmental impact of IT infrastructure ops



// Power to you! Your value add from a digital twin of the infrastructure.





### // Today's simple agenda

- Sustainability and why you should care (on top of having a green heart)! (3-5min)
- Emission scopes: What are they and why do they matter? (3-5min)
- How FNT Solutions can help you successfully meet the challenges! (9-15min)
- Q&A (~5-10min)



// Sustainability in large IT, DC & network infrastructure ops: Is it optional?

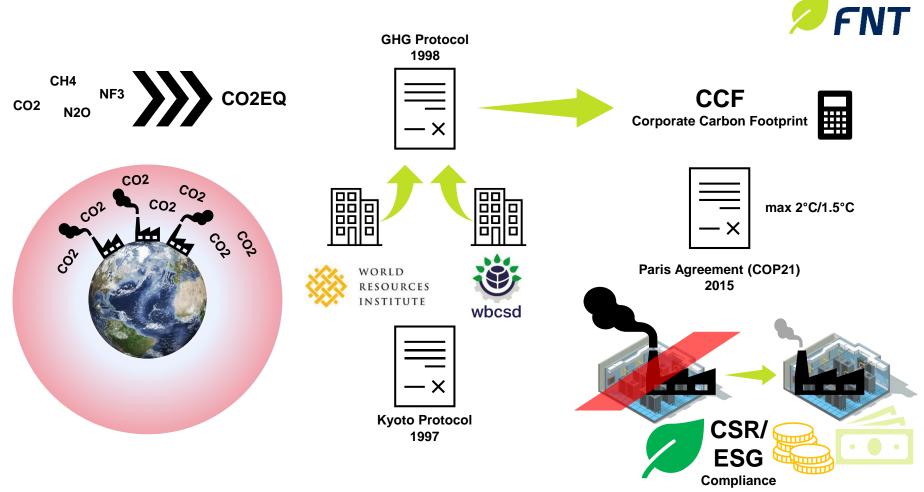
### Simply put: No.

- You need this planet & its environment intact just like everyone else.
- You **will become non-compliant** if you do not take measures.
- You will loose access to important corporate refinancing sources.
- You will run at higher operating cost than your competitors.
- You will miss out on tax exemption programs.



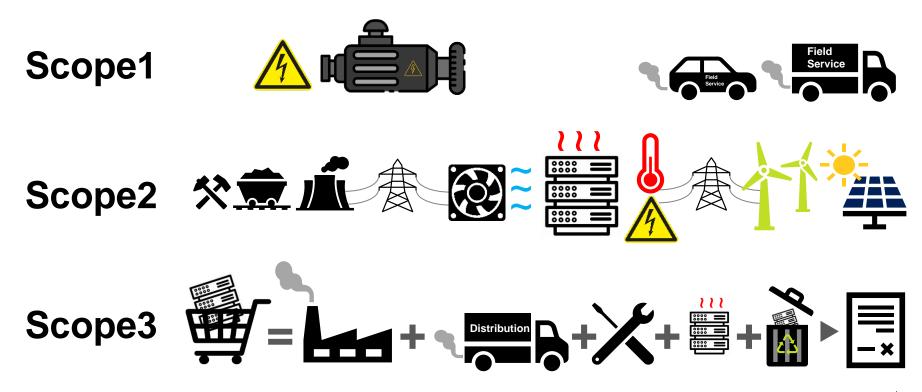






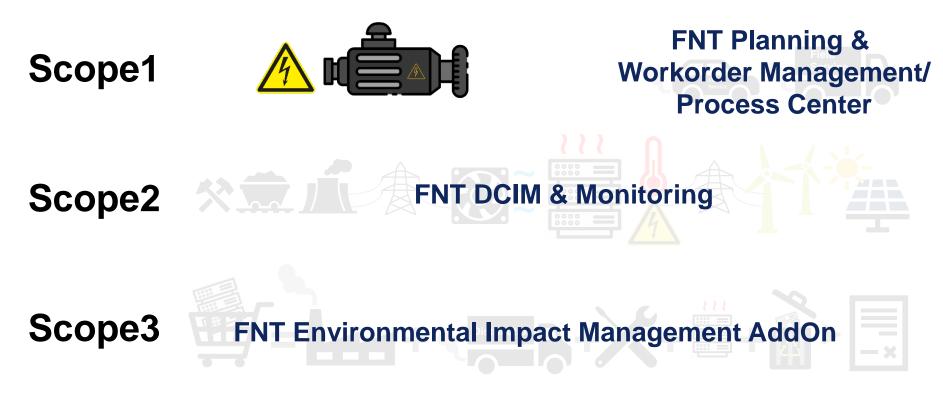


// GHG Protocol Corporate Standard – Emission Scopes: What are they?





// How do FNT Solutions help you to successfully overcome the challenges!





### // Scope 1 Support: FNT DCIM & Monitoring

2 Description	Header date				
3 Departy Reports () 3 Present	Partiel Colores Berley Whetherster Denne 120-122 / Jacons Directo adication		Fue allocation		
Hancy     Acatematic second     Acatematic second     Acatematic Management     District Management     District     District     District     District     District	Chevelo agenty total 140.04875.0 (2000) Threated 404.1187505 (2001)	Anne requests of Harden Anne requests one of 11 MAR (1994) Resoluted BET EVEN (17 PA) Resoluted BET EVEN (17 PA)	New difference Marcalaka and Statistical Control Ration approximation (S.S.S.)	1	
Antoninen J. Synne ender	Rector / Whitewater Device 100-100 / Interest Objects of Date: Director organization Objects organization	From equally effective	10 Pt / Look upon too 10 It / Look upon maaint Phar editation Too and upon 11 (2014)	1	
		And a state of the			

**FNT Command overall total capacity** 

Climate capacity & reserves

Combine it with space & reserves

Enables infrastructure operators to

reliably plan ahead mid- and long-term

support CO2E reduction measures

· Power capacity & reserves

optimize investment

٠

٠

management reporting (strategic view)

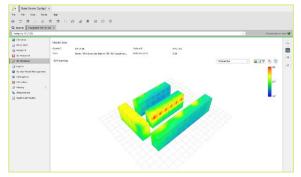
# 

#### FNT Command capacity mangement process support (operational view)

- · Locate capacity bottlenecks
- · Identify options to resolve capacity deadlocks
- · Find rackspace for rollout of new equipment

#### Enables infrastructure operators to

- optimize utilization
- avoid stranded capacity
- make planning and rollout processes of new devices faster & more reliable



#### FNT Command Heatmap for cooling management support

- Recognize hotspots visually
- · Identify & resolve causes

#### Enables infrastructure operators to

- Control that overall cooling strategy works
- optimize thermal management
- improve PUE
- support CO2E reduction measures

Reduce CO2E footprint operationally: Optimize energy consumption of equipment in lifecylce phase "use"



#### // Scope 1 Support: FNT Planning & Workorder Management/Process Center

102	Constantineing	Parel Parel	Distance we get the	and in	> Approval	the Advancements
And a find a Manifest a Management			The second se	the state of the s		(
Submits: Renowl of Casher Accessory 711, 1224		No. of Contract of		100		1. 444.1
Shorth April (11)		Patient	Protect.	1.000		( New )
* G Automage-second	- Redeword			- here being	A spraw for seal	
	0	total (i)		8 Th		1 Perce
			:	Name of Taxabase States of Taxabase		
				a -		
				- kennetering		
				Ltetx)		
<ul> <li>adaptive connected of valid services any crisis makes services and co</li> </ul>		Page 4	Fraint	Gen		0.9900
Balance - Headers and DEPOSITION Products Price			1100	No.		(
3 18 Althouthage Assettly characteristic co						
3 /9 Avtaslage mediates production co						
<ul> <li>Shikashar Asso Franklar</li> </ul>	- Perfore -terrecter	er Pertiper-2	neder ··· deer	nicifare-Jonetici -	Approximation	
	0		Note: 1	E. 1995		0.860.0
	KING PANE-SHOW IN		1	eara rane canactica -		
	= v	Chapment .		L.Mets)		
	Construction of the second	land and and and and and and and and and				
	Course View & P-707-720					

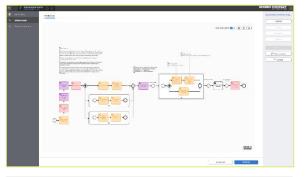
#### FNT Workorder Management (Phase-driven matrix overview)

- From request to planning to delivery
- From requirement to actual design
- · Per silo/function but overarching orchestration

#### Enables infrastructure operators to

- collect assignements of workorder for the same trades at locations with regard to time criticality
- execute mass assignments to internal workforce teams or subcontractors

10 II.									
	Rear Ma	5.e.,		toos, de	onar.u.v				
n 2 Ineu métoko	ou Con	7.+		erane Diserve	🖉 () spin-styre and 🔒 . Money and an				1
	Sec. b.s.	- Suka	Laure	Sec.m.		10	Tex .	tik	
	22		4	southered	Final Lynew and Arth Nachol (K. 2000) (2010) (20	N.S. (N)	Certified J	5464 (01) NO 11	
	. 85	٠	a:	1648030389	NO REPORT OF A DAMAGE AND A REPORT OF A DESCRIPTION OF A DAMAGE AND A DAMAGE AND A DAMAGE AND A DAMAGE AND A D	0210	100,000,000.5	5184 (B) ( B) Y	
			ģ.	Lukebrok.	for 50150040, 3.3650 IS 2080 and 30 3080 K IS FORE SHITTED TRUCK ARE FOR SHITTED	N.114	#1-0Z	640 MILW #	
	140	a	а:	With the late	Converting that and not to the converting model in a structure of the second in the converting of the	10-14 1	PROM.		
	~11~		•	-	Konstructure M., 2019 (1999) 2019 (2019) CONSTRUCTION for the CEDentry Construction (2019) 2019 (2019) (2019) 2019 (2019) 2019 (2019) 2019 (2019) 2019 (2019) 2019 (2019) 2019 (2019) (2019) 2019 (	a labori (11)	E GROUP	1444-30103919	
	2.81			ses se ora	Foreign an ALARDO (DUP) the Dealer and the content of the rest of the content of the ALARDO (DUP) and the the rest of the ALARDO (DUP) and an an an and the content of the last the rest of the ALARDO (DUP) and an an an and an and an and an and and an an an and an an an and an and an and an and an an an and an an a				
	5.85			whiteread	Haven an all Water Billion apple to an Device Have get Active Billion Without (2) parage Without The Without Bill (2017) (2) (2017)		78:0×87		
				the whore	Provide an information of the second se	3,3600-0-611	007040	144 202 209	
	44			attend	HARMAN NEW YORK AND ANY AND A STREAM OF THE ASTREAM	1.000 COM	B12-18-		
	10		•	Semiconternation	The operation of the property of the Version of the International Academic States and Academ	78-03	715-626	14430360	



#### FNT Command Planning Protocol and Stepby-Step-Instructions

- created by enabling the planner to do detailed assisted planning in a digital twin of the infra
- · containing all information to execute

#### Enables infrastructure operators to

- send technicians out perfectly prepared and with the required material on board
- reduce onsite visit repetition due to unclear instructions or divergence btw plan and reality

#### FNT Process Center Workflow Management

- Design & optimize workflow in workorder mgmt
- Insight into the status of all running workflow instances

#### Enables infrastructure operators to

- Automate work item assignment
- Accelerate processes
- Exert control over workflow execution

Reduce CO2E footprint in services: Fewer onsite visits & more work per visit, reduced transport & truckload



#### // Scope 1 Support: Real-life example of sending a technician around the airport



Reduce CO2E footprint in services: Fewer onsite visits & more work per visit, reduced transport & truckload



#### // Scope 3: The Power of Norming – ISO Norm 14025 and the EDP

W Environmental Product Declaratic × +			✓ - □ X
← → C	nental_Product_Declaration		ie ☆ 🛊 🛛 🜔 :
= WIKIPEDIA The Free Encyclopedia	Q Search Wikipedia		Create account Log in •••
	Environmental Product Declaration	文A 3 languages ∨	
Contents [hide]	Article Talk	Read Edit View history Tools 🗸	
(Тор)	From Wikipedia, the free encyclopedia		
Content of EPDs Framework for creating an EPD Product category rules Challenges in Creating EPDs EPDs in Europe EPDs in North America and Asia See also References External links	An Environmental Product Declaration (EPD) is defined by International Organ "quantifies environmental information on the life cycle of a product to enable com methodology is based on the Life Cycle Assessment (LCA) <sup>[2]</sup> loot that follows ISC EPDs are primarily intended to facilitate business-to-business transactions, althor focused when choosing goods or services. <sup>[3](4][3](6)</sup> Companies implement EPDs commitment to the environment to customers. <sup>[6]</sup> <u>Content of EPDs [edit]</u> EPD reports are available from The International EPD System <sup>[7]</sup> database. Speci summarize environmental information on the product in fewer than 50 pages. The and retailers. As an example, a 38-page EPD for a pasta product contains sections on the bran sustainable wheat cultivation, milling, packaging production, pasta production different markets. <sup>[8]</sup>	parisons between products fulfilling the same function. <sup>411</sup> The EPD 3 series 14040 <sup>[3]45(9]</sup> uigh they may also be of benefit to consumers who are environmentally in order to improve their sustainability goals, and to demonstrate a fifc content will vary according to the category of the product, but most e text and illustrations are designed to be easily understood by consumers and and product, environmental performance calculations, information on	tandardized way!"
	Framework for creating an EPD [edit]           The first step in creating an EPD is defining the product, using the appropriate Pn Rules (PCR), PCRs are specific rules and requirements verified by an independe A Life Cycle Inventory (LCI) for the LCA must be verified and from reliable source a manufacturing facility). A Life Cycle Environmental Impact Analysis (LCIA) is pe expert using software and a variety of assessment tools. <sup>10</sup> The EPD is delivered report following a series of verification reviews; it is then ready for registration and publication. <sup>110</sup> [33445[80] (11]           Product category rules [edit]           Environmental Product Declarations follow Life Cycle Assessment methodology. Included. Consequently, the results for products that fulfill the same function may Product category. Rules (PCRs) provide guidance that enables far comparison a product category. Rules (PCRs) provide guidance that enables far comparison a product category. Rules (PCRs) provide guidance that enables far comparison a product category. Rules (PCRs) provide guidance that enables far comparison a product category. Rules (PCRs) provide guidance that enables far comparison a product category. Rules (PCRs) provide guidance that enables far comparison a product category. Rules (PCRs) provide guidance that enables far comparison a product category. Rules (PCRs) provide guidance that enables far comparison a product category. Rules (PCRs) provide guidance that enables far comparison a product category.	ent, third-party panel. is (for example, from d as a document or d However, LCA studies can vary in terms of assumptions and information not be consistent with one another ( <sup>12</sup> (1 <sup>4</sup> )) unong products of the same category. PCRs include the description of the	[1]



Is it just CO2? No – there are more environmental impact indicators to handle...



- Net use of freshwater (m<sup>3</sup>)
- Eutrophication potential (kg PO43-eq.)

- Depletion potential of the stratospheric ozone layer OPD (kg CFC 11 eq.)
- Formation Potential of tropospheric ozone POCP (kg C2H4 eq.)

 Acidification potential (kg SO2 eq.)

#### And more...

- Mineral resource depletion
- Total primary energy usage
- Abiotic depletion potential fossil fuels

. . .

A nightmare to deal with?!? Well, maybe not. We can help you!



### // Scope 3: Ecopassport

PEP Ecopersport	x +			~ - 🗆 ×		
+ - C •	register.pep-ecopassport.org		ର ଜ ଜ	* * 0 0 1		General Informa
			a →		* • =	ABB Limited - Power ( 111 Main North Road Napier, 4110, New Zealand https://new.abb.com/u
	C A Nicht sicher   pep-ecopessport.org/create-a-pep/produce-a-ka/				9. G 🖈 \star 🖪 🛛	Information contact:
Well to the pep le To be comp Program, all registered in This databa	PEP BCC PASS PORT.	ecopass	en tr port® program <mark>OMemberaccess</mark>			Erik Solak: erik solak(
This databa manage you Subscribe a Declare a P1 Manage all	Produce a LCA					
	← → C = register.pep-ecopassport.org/pep/consult				ର ନ	
Please regit your person	Home / Consult the database					
	← Back to home	C	Consult the database			
			Find here all the PEPs deposited.			
		Y	tou can consult the overview or search product.			
	Cvervlew E Search product				Number of registred PEP : 235	
	Search		Feaulta			
	Search by term, register number, product name					
	Organization	ABB ASEA BROWN BOVER	PEP Designation FRAMES AND MOUNTING GRIDS OF THE ZENIT ITALY WIRING ACCESORY RANGE		eng. PEP Number EN ABB0-00001-V01.0	
	Select an organization v	ARE ASEA BROWN BOVER	MegoFlex DPA UPS		EN ABB0-00002-V01.0	
	Trademark	ABB ASEA BROWN BOVER	ABB HIPerGuard MV UPS		EN ABBC-00003-V01.0	PEP ecopassport <sup>e</sup> - ABBG-00003-V01.01-Et
	Select a trademark	ABB ASEA BROWN BOVER	ABB SureWave SFC	12/2021	EN A880-00004-V01.0	
	Product Family	ABE ASEA BROWN BOVERI	ABB F200 RESIDUAL CURRENT CIRCUIT BREAKERS	09/2022	EN A880-00005-V01.01	
Legal No	Es Select family product	ABE ASEA BROWN BOVER	ABB EQ METER	07/2022	EN A880-00005-V01.01	
Legente	Expires	ABB ASEA BROWN BOVER	2CLA213300N1161 Zenit Italy P17/P11 socket outlet white	12/2022	EN A880-00012-V01.01	
	Month v Year v	ABB ASEA BROWN BOVERI	2CLP200000N1101 Zanit blank 1M plate white	12/2022	EN A880-00013-V01.01	
	Geographical area covered by this PEP	ABB ASEA BROWN BOVERI	2CLA21020DN1201 2-way-owitch total white	12/2022	EN A888-00014-V01.01	
	Select one or more geographical area	ABB ASEA BROWN BOVER	ABB MCCB Tmex XT XT3 TM 25GA (IT)	10/2022	EN A88G-00019-V01.05	5
	Broad-base (to access also to expired PEP)	« Previous 1 2 3	3 4 5 236 Next »			
	Reserch					
	_					
						· · · · · · · · · · · · · · · · · · ·

PEP eco PASS PORT.	
PRODUC	ĺ



PEP ecopassport® -ABBG-00003-V01.01-EN



**FNT** 

The environmental impacts, reported in the following table, are calculated by using SimaPro v9.2 and the databases ecoinvent v3.7.1 and ELCD v3.2.

ARR

Parameter	Unit	Total	Manufactu	ring	Distributio	•	Installation		Use		End of life	
Global warming potential (GWP)	kg CO2	1.65E+06	8.35E+04	5.0%	1.99E+03	0.1%	1.68E+03	<0.1%	1.57E+06	94.9%	7.91E+02	<0.19
Depletion potential of the stratospheric ozone layer (ODP)	kg CFC 11 eq.	7.86E-02	4.355-03	5.5%	3.79E-04	0.5%	2.60E-05	<0.1%	7.36E-02	93.6%	2.40E-04	0.3%
Acidification potential (AP		pa	1C	10.0%	m	71	asi n	0.1%	W	6.5	OE+00	<0.19
Eutrophication potential (EP)	PO43-	2.71E+03	2.56E+02	9.4%	4.58E+00	0.2%	1.71E+00	<0.1%	2.46E+03	90.6%	3.52E+00	<0.11
Formation potentia of troposphilic ozone (POCP)	١d	iC	at	0	rs	B		he	eri	n	g	<0.11
Abiotic depletion potential – Elements	kg Sb eq.	1.85E+01	1.48E+01	80.3%	2.85E-03	<0.1%	4.32E-04	<0.1%	3.63E+00	19.6%	2.496-03	<0.11
Abiotic depletion potential – Fossil fuels	MJ, net calorific value	2.85E 07	<b>1</b> =•00		le	n	01	1	74E+07	96.3%	1.30E+04	<0.11
Total use of primary energy during the life cycle	MJ	3.18E+07	1.11E+06	3.5%	2.69E+04	<0.1%	8.84E+02	<0.1%	3.07E+07	96.4%	1.31E+04	<0.11
Net use of fresh water	m3	4.02E+04	8.91E+02	2.2%	1.84E+00	<0.1%	-1.38E- 01	<0.1%	3.93E+04	97.8%	1.74E+00	<0.11

25.10.2023 15



#### // Scope 3: ISO-Compulsory Environmental Impact Indicator Matrices everywhere!

ENVPEP2009014\_V1 - Product Environmental Profile - Galaxy VS UPS 10-100kW with integrated batteries

			2				
Compulsory indicators			PS 10-100kW wit	h integrated b	tteries - GVS	UPS50KB4D	
Contribution to mineral resources depletion	kg Sb eq	6.92E+01	6.92E+01	0*	0*	0*	0*
Contribution to the soil and water acidification	kg SO <sub>2</sub> eq	2.24E+02	7.84E+01	2.82E-01	0*	1.45E+02	2.66E-01
Contribution to water eutrophication	kg PO, <sup>3</sup> eq	2.60E+01	1.70E+01	6.50E-02	1.01E-02	8.77E+00	7.71E-02
Contribution to global warming	kg CO <sub>2</sub> eq	8.33E+04	4.83E+04	6.18E+01	3.97E+01	3.48E+04	1.58E+02
Contribution to ozone layer depletion	kg CFC11 eq	3.92E-03	1.63E-03	0*	0*	2.27E-03	1.58E-05
Contribution to photochemical oxidation	kg C2H4 eq	1.01E+01	2.05E+00	2.01E-02	9.16E-03	7.98E+00	3.07E-02
			Impact	<b>Dotatel</b>	J'NIII III	indi	- Store
Net use of freshwater	m3	1.27E+05	6.0E+02				
Total Primary Energy	MJ	1.18E+06	4.84E+05	adhe	ering t	othe	norn

28 ax. du Maréchal-de-1 7045 Limoges Cedex I eL +33 (0) 5 55 06 8787 ax. +33 (0) 5 5506 888 Your usual Sales off www.legrand.com	France	Production Network							le			CO ASS ORT:
₽¢ ■ sele	CTION OF ENV		Raw	and		_		_		_		
		or Life cycle	manufact	_	Distribut	_	Installati	_	Use		End of Life	
Global wa		-01 kgCO, eq.	-	98%	4,98E-03	< 1%	5,02E-03	< 1%	3,25E-03	< 1%	5,91E-03	< 1%
Ozone dej		-07 kgCFC-11 eq	1,21E-07	97%	1,01E-11	< 1%	3,53E-11	< 1%	3,42E-09	3%	1,51E-10	< 1%
Acidificati and water	ian of soils r	03 kgS0, eq.	1,81E-63	94%	2,24E-05	1%	2,43E-05	1%	3,89E-05	2%	2,25E-05	1%
Water eut	trophication 1,48E	-03 kg(P0 <sub>c</sub> )* eq.	1,42E-63	96%	5,14E-06	< 1%	2,51E-05	2%	4,47E-06	< 1%	2,56E-05	2%
Photochel formation	mical ozone 2,14E	04 kgC <sub>2</sub> H <sub>4</sub> eq.	2,07E-84	17%	1,598-06	< 1%	1,72E-06	< 1%	2,21E-06	1%	1,76E-06	< 1%
Depletion	of abiotic 2,34E	04 kgSb eq.	2,34E-04	100%	1,99E-10	< 1%	2,20E-10	< 1%	6.64E-08	< 1%	3,81E-10	< 1%
Total use of primar		ю1 мј	1,34E+01	98%	7,04E-02	< 1%	6,87E-02	< 1%	3,56E-02	< 1%	6,45E-02	< 1%
Net use of fresh w	1,88E	-02 m <sup>2</sup>	1,87E-02	100%	4,658-07	< 1%	1,58E-06	< 1%	4,00E-05	< 1%	5,21E-06	< 1%
Depletion resources fuels	of abiotic s - fossil 1,19E	01 MJ	1,16E+01	98%	7,00E-02	< 1%	6,99E-02	< 1%	2,85E-02	< 1%	8,44E-02	< 1%
Water pol	lution 1,59E	-02 m <sup>2</sup>	1,56E+02	18%	8,19E-01	< 1%	7,74E-01	< 1%	3,38E-01	< 1%	6,68E-01	< 1%
Air pollut	ion 7.90E	01 m <sup>1</sup> -	7.71F+01	10%	2.04E-01	< 1%	6.07E-01	<1%	3.875-01	< 1%	2,01E-01	< 1%

PCF for Volkswagen AG for 4	1x HPE ProLian	t DL385 Gen10 Plus
years product lifetime	Mean	Std deviation
Enclosure	18.78	5.58
Fan(s)	33.49	62.12
Power Supply Unit(s)	66.33	19.08
Mainboard	481.07	301.54
Solid State Drive(s)	20.05	13.16
Daughter-board(s)	242.04	271.62
Assembly Imp	bact matrix	with indicator
Transport	34.54	adherin
Use	11466.54	to the nori
End of Life	17.82	
Total (kgCO2e):	12387.79	at least nearl

			ABI	BG-00	002-V	01.01	-EN-							1.1	★ Costiss(Do)
Dergel Harrisham															
S# 54 matched															
everage measurement was descented and the															
universities and integration															
factorial tot. Too															
Description To proved the k	adef 1500 (Mragainating	t power failur	widenting 15 years and	exitchic the end	ng alonge system	n to a rodgov	e ozaga								
1544 · · · ·	·	w.,	training	anaan <sub>in</sub>	Industries,		844 10	он Устан	матанана 25 г.	Fager Marina	heisenan H	adata ana	Generati starge and Star	Operational Sciences 22	
skilal corring	10 Mg 40 COD	19/546	2.5484	20542	-	11166	030	05543	0.545	105-12	264	3646	0660	(654)	
(Data-Opinitas	5g N 28011	1.891	1300	1004.4	244	1101	10.01	12142	***	1000	a es	-	10-01	1949	
Architecture of webcent webs	Apre 872	1.0040	4.12447	12040	5991	1246	18940	(0.41	and .	10-1	<b>1</b> 94	-	(D+0)	(0+1)	
Warred sphedue	Spot PM P	1.044	2.540	0.000	2.640	3.5640	1944	10.40	10 H	1041	194	-	1040	1941	
Photo-benefad Davas Samadan	April 2014	1.4.447	1.71945	2009-1	#10+X	3.044	1.10.7	-		1011		****	10.00	1844	
Depletion of abbilit resources - elements	April D	2,450	1301	1.005.2	1025.0	1.9691	1263	00240	0004	00.0	xee	0004	002-0	0000	
Depletion of adults researces from hole	NJ	2240	2840	394	2140	09-0	19-0	(0)+41	ане	10-1	THE	-meet	(D+0)	(0+1)	
Wear petition	*	308-0	28.0	2004	2004	000-0	ex:0	00243	ott et	00.0	xex	9004	0000	000-0	
Air policilos	*	308-0	100-0	300-0	005+0	000-0	02.0	00243	00040	602-0	300-0	000-0	002-0	002-0	
Use of monotic pirmay energy on a sing records princy many monotons as of an overmitted	N0	308-0	184	x64	2004	0000	000	0000	0004	00-9	xee	order.	000 O	"Yeard to	
Use of non-wable primary energy neocarces used as new materials	NJ.	300-0	00.0	2004	000+0	000.0	000	m	pa	3	ma	τιχ	with	indi	cato
Total use of networking in may energy reasons as (primary energy and primary energy exercises used as new remarkin)	NJ.	20840	28.0	20040	205+1	600-0	68.0	00243	002.02	662-9	2004	0004	002-0	ad	orir
Use of remaining the primary analogy excluding non-serverable primary analog resources used as non-matching	NJ	300-0	000-0	300-0	000+0	000-0	000	00243	312.42	602-0	900-0	900-0	002-0	adł	iem
														o the	



D.

### // Scope 3 Support: FNT Environmental Impact Management AddOn

Bearbeiten Extras Ansicht 클 스 그 가 후 다: ①	Hilfe												Mea Modifi No mod	Catio Catio Ck-o
Q Suche Object: PowerEdge-R630_8H	D_2PCI	×											(with the tiny exception of	of the leaf
Object: PowerEdge-R630_8HD_2PCI													✓ Docum	Cires.
Object navigation	$\sim$	7 re	ecords										8) 8) / 0 D	J
Object data		4	Indicator Type*		/ Unit*	🖋 Total	1	Manufacturing	Distribution	Installation	ø Use	Find of life	/ +	
Technical data			Resources use	Net use of freshwater	m3	127000	000	680.000			126000.000		•	
operations data			Resources use	Total Primary Energy	MJ	118000	0.000	484000.000	874.000		695000.000	1590.000		0
😣 Environmental Profile (Sustainability)			Impact Indicator	Contribution to mineral resources depletion	kg Sb eq	6920.00	0	48300.000	6180.000	3970.000	34800.000	15800.000		C
CMS			Impact Indicator	Contribution to the soil and water acidification	kg SO2 eq	224.000		78.400	0.282	0.000	145.000	0.266		0
🕎 IP data	>		Impact Indicator	Contribution to water eutrophication	kg PO4 3- eq	26.000		17.000	0.650	0.101	8.770	0.771		
Port data	>		Impact Indicator	Contribution to global warming	kg CO2 eq	83300.0	00	48300.000	61.800	39.700	34800.000	158.000		
Slot data			Impact Indicator	Contribution to ozone layer depletion	kg CFC11 eq	0.003		0.001						
Services														
Reference drawing														
Assignment list														
G CI Graphics (0)														
Accessories	5	Tota	al Device											
🙆 Lifecycle		7 re	ecords										🖲 🛃 🔊 🔇	2
() History	>	4	Indicator Type	Indicator	Unit	Total		Manufacturing	/ Distribution	Installation	🖋 Use	Find of life		
S Attachments			> Resources use	Net use of freshwater	m3	127000	000	680.000			126000.000			
System attributes			> Resources use	Total Primary Energy	MJ	118000	0.000	484000.000	874.000		695000.000	1590.000		
			> Impact Indicator	Contribution to mineral resources depletion	kg Sb eq	6920.00	0	48300.000	6180.000	3970.000	34800.000	15800.000		
			> Impact Indicator	Contribution to the soil and water acidification	kg SO2 eq	224.000		78.400	0.282	0.000	145.000	0.266		
			> Impact Indicator	Contribution to water eutrophication	kg PO4 3- eq	26.000		17.000	0.650	0.101	8.770	0.771		
			> Impact Indicator	Contribution to global warming	kg CO2 eq	84300.0	00	49260.000	101.800	41.700	34805.000	163.000		
			> Impact Indicator	Contribution to ozone layer depletion	kg CFC11 eq	0.003		0.001						



### // Scope 3 Support: FNT Environmental Impact Management AddOn

ei Bearbeiten Extras Ansicht H	Hilfe											Interna
ሰ ፊ ርን 🕈 🖯 💿												
Suche Object: PowerEdge-R630_8HD_2	2PCI ×											
oject: PowerEdge-R630_8HD_2PCI											~	Documenta
Object navigation	~	7 records									8 8 8 8 0 C	2
Object data		Indicator Type*	/ Indicator*	NUnit*	/ Total	/ Manufacturing	Distribution	/ Installation	🥒 Use	End of life	11 11 10 W L	
Technical data		Resources use	Net use of freshwater	m3	127000.000	680.000	gr Distribution	Jr Installation	126000.000	de cito or ine		
) operations data		Resources use	Total Primary Energy	MJ	1180000.000	484000.000	874.000		695000.000	1590.000		
Environmental Profile (Sustainability)		Impact Indicator	Contribution to mineral resources depletion	kg Sb eq	6920.000	48300.000	6180.000	3970.000	34800.000	15800.000		
) CMS		Impact Indicator	Contribution to the soil and water acidification	kg SO2 eq	224.000	78.400	0.282	0.000	145.000	0.265		
IP data	>	Impact Indicator	Contribution to water eutrophication	kg PO4 3- eq	26.000	17.000	0.650	0.101	8.770	0.771		
Port data	>	Impact Indicator	Contribution to global warming	kg CO2 eq	83300.000	48300.000	61.800	39.700	34800.000	158.000		
) Slot data		Impact Indicator	Contribution to ozone layer depletion	kg CFC11 eq	0.003	0.001						
Services				india				_		in the line		
Reference drawing			mpact matrix with	inaic	ators a	anering	g to th	e norm	: Easy	Initializi	ing per u	ype
			-				-				• •	
Assignment list			itance, dependent				-				• •	
Reference drawing     Assignment list     Cl Graphics (0)     Accessories	> <sup>1</sup>		-				-				anual int	ake
Assignment list CI Graphics (0)	1	inheri	-				-				anual int	
Assignment list CI Graphics (0) Accessories	1	inher Total Device	Indicator	t drop	down-l	ogic fo	-		stance		anual int	ake
Assignment list Cl Graphics (0) Accessories Elifecycle	1	inheri otal Device 7 records indicator Type > Resources use	Indicator Net use of freshwater	Unit m3	<b>down-l</b> Total 127000.000	Manufacturing 680.000	✔ quali ✔ Distribution	ty assi	Stance Use 126000.000	with ma	anual int	ake
Assignment list CI Graphics (0) Accessories J Lifecycle History Attachments	1	inheri otal Device 7 records indicator Type > Resources use > Resources use	Indicator Net use of freshwater Total Primary Energy	Unit MJ	total 127000.000 1180000.000	Manufacturing 680.000 484000.000	Distribution	ty assi	€ Use 126000.000 695000.000	Find of life	anual int	ake
Assignment list CI Graphics (0) Accessories Lifecycle History Attachments System attributes	1	Inheri Trecords Indicator Type > Resources use > Resources use > Impact Indicator	Indicator Net use of freshwater Total Primary Energy Contribution to mineral resources depletion	Unit MJ kg Sb eq	<b>Total</b> 127000.000 1180000.000 6920.000	Manufacturing 680.000 484000.000 48300.000	Contribution     Contribution	ty assi Installation 3970.000	€ Use 126000.000 695000.000 34800.000	with ma	anual int	ake
Assignment list CI Graphics (0) Accessories Lifecycle History Attachments System attributes	1	inheri otal Device 7 records indicator Type > Resources use > Resources use > Inpact Indicator > Impact Indicator	Indicator Net use of freshwater Total Primary Energy Contribution to mineral resources depletion Contribution to the soil and water acidification	Unit m3 MJ kg Sb eq kg S02 eq	<b>Total</b> 127000.000 1180000.000 6920.000 224.000	✓ Manufacturing 680.000 484000.000 48300.000 78.400	<ul> <li>Distribution</li> <li>874.000</li> <li>6180.000</li> <li>0.282</li> </ul>	ty assi Installation     3970.000     0.000	Use           126000.000         695000.000           34800.000         145.000	with ma ► End of life 1590.000 15800.000 0.266	anual int	ake
Assignment list CI Graphics (0) Accessories Lifecycle History Attachments System attributes ttachment	1	Inheri Trecords Indicator Type > Resources use > Resources use > Impact Indicator	Indicator Net use of freshwater Total Primary Energy Contribution to mineral resources depletion Contribution to the soil and water acidification Contribution to water eutrophication	Unit m3 MJ kg Sb eq kg S02 eq kg P04 3- eq	<b>Total</b> 127000.000 1180000.000 6920.000	Manufacturing 680.000 484000.000 48300.000	Contribution     Contribution	ty assi Installation 3970.000	€ Use 126000.000 695000.000 34800.000	with ma	anual int	ake
Assignment list Cl Graphics (0) Accessories Lifecycle History System attributes ttachment Inctionality for	1	inheri otal Device 7 records Sesources use > Resources use > Resources use > Impact Indicator > Impact Indicator	Indicator Net use of freshwater Total Primary Energy Contribution to mineral resources depletion Contribution to the soil and water acidification	Unit m3 MJ kg Sb eq kg S02 eq	<b>Total</b> 127000.000 1180000.000 6920.000 224.000 26.000	<ul> <li>Manufacturing</li> <li>660.000</li> <li>484000.000</li> <li>48300.000</li> <li>78.400</li> <li>17.000</li> </ul>	<ul> <li>Distribution</li> <li>874.000</li> <li>6180.000</li> <li>0.282</li> <li>0.650</li> </ul>	ty assi Installation 3970.000 0.000 0.101	Use           126000.000         695000.000           34800.000         145.000           145.000         8.770	with ma ► End of life 1590.000 15800.000 0.266 0.771	anual int	ake
Assignment list Ci Graphics (0) Accessories J. Lifecycle J. History	1	Intherional Content of the Content o	Indicator     Net use of freshwater     Total Primary Energy     Contribution to mineral resources depletion     Contribution to the soil and water aclidication     Contribution to water eutrophication     Contribution to global warming	Unit MJ MJ kg Sb eq kg S02 eq kg P04 3- eq kg C02 eq kg C02 eq	<b>Total</b> <b>Total</b> 127000.000 1180000.000 6220.000 224.000 26.000 8.4300.000 0.003	Manufacturing 60000 484000.000 48400.000 78400 17.000 49260.000 0.001	<ul> <li>Distribution</li> <li>874 000</li> <li>6180.000</li> <li>0.282</li> <li>0.650</li> <li>0.1.800</li> </ul>	ty assi Installation 3970.000 0.101 41.700	Use           126000.000         695000.000           34800.000         145.000           145.000         8.770           34805.000         34805.000	with max	anual int	ake

With type inheritance from master data it's designed for minimal, near-zero administrative effort!



### // Scope 3 Support: FNT Environmental Impact Management AddOn Dashboard





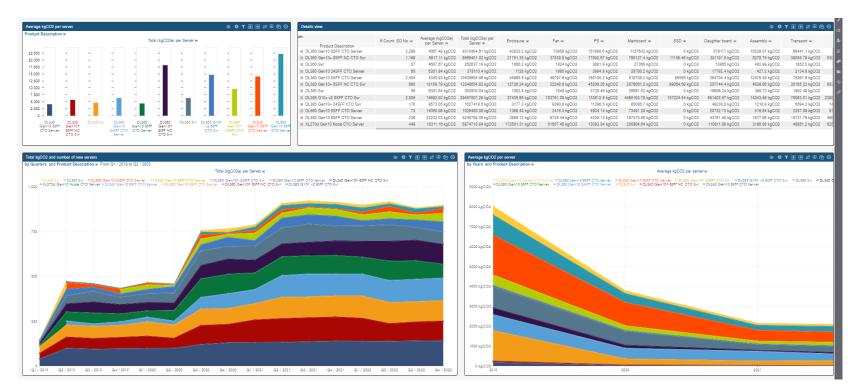
Top Level KPIs for easy quick-view on progress!

Comparative analysis and insights along every data dimension available in FNT Command (mandators/clients, regions, countries, datacenters, campus & building structures, manufacturers, product families, classes, types, funtions, areas of responsibility,...)

Proof of Progress in growth scenarios!



#### // Scope 3 Support: FNT Environmental Impact Management AddOn Dashboard





### // Scope 3 Support: FNT Environmental Impact Management AddOn Dashboard



**Overall CO2E rise due to capacity growth** with company success & more digitization, new networks & new devices being rolled out.

But: Reduced CO2E averages (per rack, per HU, per device type) documentating a highly successful sustainability initiative

Compliance

**CSR/ESG** With the FNT Command Environmental Impact Management AddOn in place this FNT Analytics Dashboard works out-of-the-box in turnkey fashion!

21

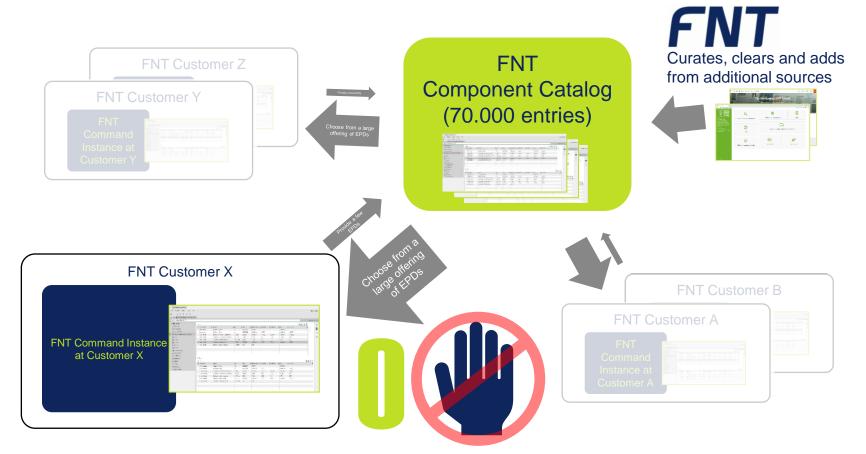


// The bigger capability picture – providing even more business value

## Making things even easier for the customer, you! – EPDs in the FNT Component Catalog. Simply download.



### // Dear customer! If you give a little – you'll get a LOT back!





### // 4 key takeaways

- FNT Solutions help you to actually become truly more green in IT Infrastructure Operations in absolute numbers.
- FNT Solutions will contribute to your CSR/ESG compliance significantly, fast and out-of-the-box.
- FNT Solutions enable you to save cost and support you in
  - becoming eligible to tax exemption programs.
  - retaining access to refinancing funds requiring sustainability.
  - making your infrastructure less power-hungry by supporting the transfer towards "greener" products.
- FNT Solutions allow you to manage CO2 documentation of your infrastructure device & cabling landscape and monitor an important aspect of decarbonization progress with minimum effort.













### // Anything left on your mind about this?







www.fntsoftware.com