"Note: Cardinality Means occurance of field in the schema. Below are the the meaning of various symbol used in this column:

0..1 : It means this item is optional and even if mentioned can not be repeated

**1..1**: It means that this item is mandatory and can be mentioned only once.

1..n: It means this item is mandatory and can be repeated more than once

0..n: It means this item is optional but can be repated many times. For example: Previous invoice reference is optional but if required one can mention many previous invoice reference.

	FORM GST INV – 1 (See rules 48)											
S No	Technical Field name	Cardi nalit Y	Small Description of the field	Is it Mand atory on invoic e?	Technic al Field Specific ations	Sample Value of the field	Explanatory Notes of the Field					
0	Version	11	Version number	Mand atory	string(M ax length:1 0)	1.0	It is the version of schema . It will be used to keep track of version of Invoice specification.					

2	IRN Invoice_type_code	01	Invoice Refernce Number Code for	Mand atory Mand	string(M ax length:5 0) string(M	649b01ft B2B/B2C/SEZWP/SEZWOP/EXP WP/EXPWOP/DEXP/ISD/BOS/D	This will be a unique reference number for this invoice. It can be generated by application based on the Algorithm provided by E-Invoice system or can be left blank. In case this field has been left blank E-Invoice system will generate it and respond back in response to registration request. In case application send this number then e-Invoice system will validate it and after validation registered same number against this invoice. Invoice will only be valid once it has this number and it is registered on E-invoice system. This will be the code to identify type of supply some of the examples are
			Invoice type	atory	ax length:1 0)	C	supply, some of the examples are mentioned. It will have also code for bill of entry, invoice and other type of documents. B2C invoice can be mentionted as type and based on that some fields will become optional. Detail JSON schema will mention these details later.
3	Invoice_Subtype_co de	11	Sub_Code for Invoice type	Mand atory	Drop Down	Regular / CreditNote / DebitNote	Type of the Document Can be used as Regular for Bill of Supply and Delivery Challan etc
4	InvoiceNum	11	Invoice number	Mand atory	string(M ax length:1 6)	Sa/1/2019	It will be as per invoice number rule mentionted in CGST/SGST rule. Rule to be checked.

5	InvoiceDate	11	Invoice Date	Mand atory	string (DD/M M/YYYY)	21/7/2019	The date when the Invoice was issued. Format "DD/MM/YYYY"
6	Invoice_currency_co	11	Currency	Optio	string(M	USD	It depicts an additional currency in which all
	de		code	nal	ax length:1		Invoice amounts can be given along with INR. one additional currency shall be used
					6)		in the Invoice.
7	Reversecharge	01	Reverse	option	Charact	γ	Is the liability payable under reverse charge
			Charge	al	er		
8	Delivery_or_Invo	01		Opti			
	ice_Period			onal			
9	Invoice_Period_Star	11	Invoice	Mand	string	21-07-19	
	t_Date		period start	atory	(DD/M		
			date	(if this	M/YYYY)		
				sectio			
				n is			
				select			
				ed or			
				used)			
10	Invoice_Period_End	11	Invoice	Mand	string	21-07-19	
	_Date		Period End	atory	(DD/M		
			date	(if this	M/YYYY)		
				sectio			
				n is			
				select			
				ed or			
				used)			

11	Order and Sales Order Reference	01		Opti onal			
12	Preceding Invoice Reference	0n					
13	Preceeding_Invoice _Number	11	Detail of Base Invoice which is being amended by subsequent document	Mand atory (if this sectio n is select ed or used)	string(M ax length:1 6)	Sa/1/2019	This is the reference of original invoice to be provided in the case of debit and credit notes. In mere invoicing this is not required. It is required to keep future expansion of e versions of Credit notes, Debit Notes and other documents required under GST
14	Invoice_Document_ Reference	1.1	Invoice reference	Optio nal	string(M ax length:2 0)	KOL01	This reference is kept for user to provide any additional fields for eg., some branch, their user id, their employee id, sales centre reference etc.
15	Preceeding_Invoice _Date	11	Date of Invoice	Mand atory (if this sectio n is select ed or used)	string (DD/M M/YYYY)	21-07-19	
16	Other References	01					
17	Receipt_Advice_Ref erence	01	Terms reference	Optio nal	string(M ax length:2	CREDIT30	This reference is kept for user to provide their receipt advice details to their customer.

					0)		
18	Tender_or_Lot_Refe rence	01	Lot / Batch Reference	Optio nal	string(M ax length:2 0)	TENDERJAN2020	This reference is kept for mentioning number or detail of Lot or Tender if supplies are made under such Lot or tender
19	Contract_Reference	01	Contract Number	Optio nal	string(M ax length:2 0)	CONT23072019	This reference is kept for mentioning contract number if supplies are made under any specific Contract
20	External_Reference	01	Any other reference	Optio nal	string(M ax length:2 0)	EXT23222	An additional field for provision of any additional reference number for such supply.
21	Project_Reference	01	Project Reference	Optio nal	string(M ax length:2 0)	PJTCODE01	This reference is kept for mentioning Project number if supplies are made under any specific Project
22	RefNum	01	Vendor PO Reference number	Optio nal	string(M ax length:1 6)	Vendor PO /1	0
23	RefDate	01	Vendor PO Reference date	Optio nal	string (DD/M M/YYYY)	21-07-19	00-01-00
24	Supplier Information	11		Man dator y			A group of business terms providing information about the Supplier.

25	Supplier_Legal_N ame	1 1	Supplier_Le gal_Name	Mand atory	string(M ax length:1 00)	The Institute of Charetred Accountants of India	Name as appearing in PAN of the Supplier
26	Supplier_trading_ name	0 1	Trade Name of Supplier	Optio nal	string(M ax length:1 00)	ICAI	A name by which the Supplier is known, other than Supplier name (also known as Business name).
27	Supplier_GSTIN	1 1	Gstin of the Supplier	Mand atory	Alphanu meric with 15 characte rs	29AADFV7589C1ZO	GSTIN of the supplier
28	Supplier_Address	1 1	Supplier address1	Mand atory	string(M ax length:1 00)	Vasanth Nagar	Address of the Supplier
29	Supplier_Address 2	0 1	Supplier address 2	Optio nal	string(M ax length:1 00)	Bangalore	City of the Supplier
30	Supplier_City	1 1	Supplier address 2	Optio nal	string(M ax length:5 0)	Bangalore	City of the Supplier
31	Supplier_State	1 1	Place	Mand atory	string(M ax length:5 0)	Karnataka	State of the Supplier

32	Supplier_Pincode	1 1	Pincode	Mand atory	string(M ax length:6 )	560087	Pincode of the Supplier
33	Supplier_Phone	0 1	Phone	Optio nal	string(M ax length:1 2)	9999999999	Contact number of the Supplier
34	Supplier_Email	0 1	eMail id	Optio nal	string(M ax length:5 0)	<u>Supplier@icai.com</u>	Email id of the Supplier.
35	Buyer Information	11		Man dator y			Header for Buyer information
36	Billing_Name	1 1	Buyer Legal name	Mand atory	string(M ax length:1 00)	Adarsha	It will be legal name of buyer
37	Billing_Trade_Na me	1 1	Buyer Legal name	Mand atory	string(M ax length:1 00)	Adarsha	It will be Trade Name of buyer
38	Billing_GSTIN	1 1	GSTIN	Mand atory	string(M ax length:1 5)	29AACCR7832C1ZD	GSTIN of the Buyer
39	Billing_POS	1 1	State code	Mand atory	String(M ax length:2	29	Place of supply code of Supply

					)		
40	Billing_Address1	1 1	Address1	Mand atory	string(M ax length:1 00)	Address	Address of the Buyer
41	Billing_Address2	0 1	Address2	option al	string(M ax length:1 00)	Address	Address of the Buyer
42	Billing_State	1 1	Place	Mand atory	string(M ax length:5 0)	Bangalore	State of the Buyer
43	Billing_Pincode	1 1	pincode	Mand atory	string(M ax length:6 )	560002	Pincode of the Buyer
44	Billing_Phone	0	Phone number	Optio nal	string(M ax length:1 2)	080 2223323	contact number of the Buyer
45	Billing_Email	0 1	eMail id	Optio nal	string(M ax length:5 0)	<u>billing@icai.com</u>	Email id of the buyer. This should be provided to help E-Invoicing system to receive this invoice on mail.

46	Payee Information (Seller payment information)	01		optio nal			Header for Payee Information - person to whom amount is payable. Optional for cases where payment is to be made to a person other than Supplier
47	Payee_Name	1 1	Payee name	Mand atory	string(M ax length:1 00)		Name of the person to whom payment is to be made
48	Payee_Financial_ Account	11	Account Number	Mand atory	string(M ax length:1 8)		Account number of Payee
49	ModeofPayment	11	Payment mode	Mand atory	string(M ax length:6 )	Cash/Credit/Direct Transfer	Cash/Credit/Direct Transfer
50	Financial_Institution _Branch	11	Financial Institution Branch (IFSC Code)	Mand atory	string(M ax length:1 1)		A group of business terms to specify Branch of Payee
51	Payment_Terms	01	Payment Terms	Optio nal	string(M ax length:5 0)		Terms of Payment with the recipient if to be provided
52	Payment_Instructio n	01	Payment Instruction	Optio nal	string(M ax length:5 0)		A group of business terms providing information about the payment.

53	Credit_Transfer	01		Optio nal	string(M ax length:5 0)		A group of business terms to specify credit transfer payments.
54	Direct_Debit	01		Optio nal	string(M ax length:5 0)		A group of business terms to specify a direct debit.
55	CreditDays	01	Due date of Credit	Optio nal	Numeric (Min length:1 Max length:3 )	30-11-2019	The date when the payment is due. Format "DD-MM-YYYY".
56	Delivery_Inform ation	11		Man dator y			A group of business terms providing information about where and when the goods and services invoiced are delivered.
57	DispatchFromDet ails	1 1	DISPATCH from details	Mand atory	<u>Refer A 1</u>	<u>.1</u>	
58	ECOM_GSTIN	01	eCommerce GSTIN	Optio nal	string( Max length: 15)		Mention og E commerce operator is supply is made through him
59	ECOM_POS	01	State code	Optio nal	String( Max length: 2)	29	Mention og E commerce operator is supply is made through him
60	Invoice Item Details	1n		Man dator			

				У			
61	List {items}		Items	Mand atory	<u>Refer A</u>	<u>1.2</u>	A group of business terms providing information about the goods and services invoiced.
62	Document Total	11		Man dator y	-	-	
63	TotalDetails	11	Bill Total Details	Mand atory	<u>Refer A</u>	<u>1.3</u>	0
64	Tax_Total	11	Total Tax Amount	Mand atory	Decima I (10,2)		When tax currency code is provided, two instances of the tax total must be present, but only one with tax subtotal.
65	Sum_of_Invoice_lin e_net_amount	01	Item level net amount	option al	Decima l (10,2)		Sum of all Invoice line net amounts in the Invoice. Must be rounded to maximum 2 decimals.
66	Sum_of_allowances _on_document_leve I	01	total discount	option al	Decima l (10,2)		Sum of all allowances on document level in the Invoice. Must be rounded to maximum 2 decimals.
67	Sum_of_charges_on _document_level	01	total other charges	option al	Decima l (10,2)		Sum of all charges on document level in the Invoice. Must be rounded to maximum 2 decimals.
68	PreTaxDetails		Break up of the tax rate at invoice level	Optio nal	<u>Refer A</u>	<u>1.3</u>	The total amount of the Invoice without GST. Must be rounded to maximum 2 decimals.
69	Paid_amount	11	Paid amount	Mand atory	Decima l (10,2)		The sum of amounts which have been paid in advance. Must be rounded to maximum 2 decimals.

70	Amount_due_for_p ayment	11	Payment Due	Mand atory	Decima l (10,2)		The outstanding amount that is requested to be paid. Must be rounded to maximum 2 decimals.
71	Extra Information	01		Optio nal			
72	Tax_Scheme	11	GST, Excise, Custom, VAT eyc.	Mand atory	string( Max length: 4)	GST,CUST, VAT etc	Mandatory element. Use "GST"
73	Remarks	01	Remarks/No te	Optio nal	string( Max length: 100)	New batch Items submitted	A textual note that gives unstructured information that is relevant to the Invoice as a whole.Such as the reason for any correction or assignment note in case the invoice has been factored.
74	Additional_Supporti ng_Documents	0n		optio nal			
75	Additional_Supporti ng_Documents_url	01	Supporting document URLs	option al	string( Max length: 100)		A group of business terms providing information about additional supporting documents substantiating the claims made in the Invoice. The additional supporting documents can be used for both referencing a document number which is expected to be known by the receiver, an external document (referenced by a URL) or as an embedded document, Base64 encoded (such as a time report).

76	Additional_Supporti ng_Documents	01	Supporting document in base64 format.	option al	string( Max length: 1000)		A group of business terms providing information about additional supporting documents substantiating the claims made in the Invoice. The additional supporting documents can be used for both referencing a document number which is expected to be known by the receiver, an external document (referenced by a URL) or as an embedded document, Base64 encoded (such as a time report).
77	Invoice_Allowances _or_Charges	01	Total Value of allowances and charges at invoice level	option al	Decima I (10,2)		A group of business terms providing information about allowances or charges applicable at invoice level as sometime discount or charges may be applicable on invoice level not on line item level.
78	Eway Bill Details	01		Opti onal			
79	Transporter ID	11	Transporter Id	Optio nal	Alphan umeric with 15 charact ers	29AADFV7589C1ZO	GSTIN :: 29AMRPV8729L1Z1
80	transMode	11	Mode of transportati on	Road / Rail / Air / Ship	<u>Drop</u> <u>Down -</u> <u>Fixed</u>	-	1/2/3/4
81	transDistance	11	Distance of transportati on		Decima l (10,2)	-	20

82	transporterName	01	Transporter Name		string( Max length: 100)	-	SPURTHI R
83	transDocNo	01	Transporter Doc No		-	-	TA120; Mandatory if the mode of transport is other than by Road
84	transDocDate	01	Transporter Doc Date		string (DD/M M/YYY Y)	21-07-2019	20/9/2017
85	vehicleNo	11	Vehicle No	Optio nal	string( Max length: 20)	-	KA12KA1234 or KA12K1234 or KA123456 or KAR1234
86	Signature Detials	01		Man dator y			
87	DSC	11	Digital Signature of the Document			DSC KEY Hash	an optional field since it is signed by the GSTN Portal also and data travels thry secured platform
	A 1.0 ShipTo Details	01					
S No	Parameter Name		Description		Field Specifi cations	Sample Value	
1	ShippingTo_Name	11	ShippingTo_ Legal_Name	Mand atory	string( Max length:	Adarsha	A group of business terms providing information about the address to which goods and services invoiced were or are

					60)		delivered.
1	ShippingTo_Name	11	ShippingTo_ Trade_Nam e	Mand atory	string( Max length: 60)	Adarsha	A group of business terms providing information about the address to which goods and services invoiced were or are delivered.
2	ShippingTo_GSTIN	11	ShippingTo_ GSTIN	Mand atory	string( Max length: 100)	36AABCT2223L1ZF	A group of business terms providing information about the address to which goods and services invoiced were or are delivered.
3	ShippingTo_Address	11	ShippingTo_ Address1	Mand atory	string( Max length: 50)	Address	A group of business terms providing information about the address to which goods and services invoiced were or are delivered.
4	ShippingTo_Address 2	01	ShippingTo_ Address2	Optio nal	string( Max length: 50)	Address	A group of business terms providing information about the address to which goods and services invoiced were or are delivered.
5	ShippingTo_Place	01	ShippingTo_ Place	Optio nal	string( Max length: 50)	Bangalore	A group of business terms providing information about the address to which goods and services invoiced were or are delivered.
6	ShippingTo_Pincode	11	ShippingTo_ Pincode	Mand atory	string( Max length: 6)	560001	A group of business terms providing information about the address to which goods and services invoiced were or are delivered.
7	ShippintTo_State	11	ShippintTo_ State	Mand atory	string( Max length: 100)	Karnataka	A group of business terms providing information about the address to which goods and services invoiced were or are delivered.

8	SubsupplyType		Supply Type	Mand atory	String( Max length: 2)	Supply/export/Jobwork	A group of business terms providing information about the address to which goods and services invoiced were or are delivered.
9	TransactionMode		Transacion Mode	Mand atory	String( Max length: 2)	Regula/BilTo/ShipTo	A group of business terms providing information about the address to which goods and services invoiced were or are delivered.
	A 1.1 DispatchFro	om Detai	ils				
S No	Parameter Name		Description		Field Specifi cations	Sample Value	
1	Company_Name	11	Company_N ame	Mand atory	string( Max length: 60)	ICAI	Detail of person and address wherefrom goods are dispatched.
2	Address1	11	Address1	Mand atory	string( Max length: 100)	Vasanth Nagar	Detail of person and address wherefrom goods are dispatched.
2	Address2	01	Address2	Optio nal	string( Max length: 100)	Millers Road	Detail of person and address wherefrom goods are dispatched.
3	City	11	Place	Optio nal	string( Max length: 100)	Bangalore	Detail of person and address wherefrom goods are dispatched.

4	State	11	State	Mand atory	String( Max length: 2)	Karnataka	Detail of person and address wherefrom goods are dispatched.
5	Pincode	11	Pincode	Mand atory	string( Max length: 6)	560087	Detail of person and address wherefrom goods are dispatched.
	A 1.2 Item Details	1n					
S No	Parameter Name		Description		Field Specifi cations	Sample Value	
1	SLNO	11	Serial Number	Mand atory	int	1,2,3	
2	Item Description	01	Item description	option al	string( Max length: 300)	Mobile	The identification scheme identifier of the Item classification identifier
3	ISService	01	ISService	Optio nal	Charact er	Y/N	Specify whether supply is that of Services or not
4	HSN code	01	HSN code	Optio nal	string( Max length: 8)	1122	A code for classifying the item by its type or nature.
5	Batch	01		Optio nal	<u>Refer</u> <u>A 1.3.1</u>	galaxy	Batch number details are important to be mentioned for certain set of manufacturers
6	Barcode	01	ItemBarcde	Optio nal	string( Max	b123	Barcoding if to be provided need to be specified

					length: 30)		
7	Quantity	11	Quantity	Mand	Decima	10	The quantity of items (goods or services)
	5 0			atory	l (13,3)		that is charged in the Invoice line.
8	FreeQty	01	free	Optio	Decima	1	Detail of any FOC item
	1100	0.1	quantity	nal	(13,3)	Deu	
9	UQC	01	uom	Optio	string(	Box	The unit of measure that applies to the
				nal	Max		invoiced quantity. Codes for unit of
					length:		packaging from UNECE Recommendation No. 21 can be used in accordance with the
					8)		descriptions in the "Intro" section of
							UN/ECE Recommendation 20, Revision 11
							(2015): The 2 character alphanumeric code
							values in UNECE Recommendation 21 shall
							be used. To avoid duplication with existing
							code values in UNECE Recommendation No.
							20, each code value from UNECE
							Recommendation 21 shall be prefixed with
							an "X", resulting in a 3 alphanumeric code
							when used as a unit of measure.
10	Rate	11	Item Rate	Mand	Decima	500.5	The number of item units to which the price
			per quantity	atory	l (10,2)		applies.
11	GrossAmount	11	gross	Optio	Decima	5000	The price of an item, exclusive of GST, after
			amount	nal	l (10,2)		subtracting item price discount. The Item
							net price has to be equal with the Item
							gross price less the Item price discount, if
							they are both provided. Item price can not
							be negative.
12	DiscountAmount	01	discount	Optio	Decima		The total discount subtracted from the Item
			amount	nal	l (10,2)		gross price to calculate the Item net price.

13	PreTaxAmount	01	Pretax	Optio nal	Decima l (10,2)	50	This is the Value after the Tax. Ideally this would be taxable value in most cases, when ever there is a change in the assesseable value then pretax amount should be used for.
14	AssesseebleValue	11	net amount	Mand atory	Decima I (13,2)	5000	The unit price, exclusive of GST, before subtracting Item price discount, can not be negative
15	GST Rate	11	Rate	Mand atory	Decima I(3,2)	5	The GST rate, represented as percentage that applies to the invoiced item.
16	lamt	01	IGST Amount as per item	Mand atory	Decima l(11,2)		A group of business terms providing information about GST breakdown by different categories, rates and exemption reasons
17	Camt	01	CGST Amount as per item	Mand atory	Decima I(11,2)	650.00	
18	Samt	01	SGST Amount as per item	Mand atory	Decima l(11,2)	650.00	
19	Csamt	01	CESS Amount as per item	Optio nal	Decima l(11,2)	65.00	
20	StateCessAmt	01	State cess amount as per item	Optio nal	Decima l(11,2)	65.00	
21	OtherCharges	01	Other if any	Optio nal	Decima l(11,2)		A group of business terms providing information about allowances applicable to the Invoice as a whole. A group of business terms providing information about charges

							and taxes other than GST, applicable to the Invoice as a whole.
22	Invoice_line_net_a mount	01	Invoice line Net Amount	Optio nal	Decima I(11,2)		The total amount of the Invoice line. The amount is "net" without GST, i.e. inclusive of line level allowances and charges as well as other relevant taxes. Must be rounded to maximum 2 decimals.
23	OrderLine_Refere nce	01	Reference to purchase order	option al	String (50)		Reference of purchase order.
24	ItemTotal	11	net amount	Optio nal	Decima l (13,2)	5000	A group of business terms providing the monetary totals for the Invoice.
25	Origin_Country	01	Origin country of item	option al	String( Max length: 2)		This is to specify item origin country like mobile phone sold in India could be manufactured in China.
26	SerialNoDetails	01		Optio nal	<u>Refer A</u>	1.3.2	
	A 1.3 Total Details	11		Mand atory			
S No	Parameter Name		Description		Field Specifi cations	Sample Value	
1	IGSTValue	01	IGST Amount as per invoice	Optio nal	Decima l(11,2)		Appropriate taxes based on rule will be applicable. For example either of CGST& SGST or IGST will be mandatory. As there is no way to show conditional mandatory,

						optional has been mentionted against all taxes.
2	CGSTValue	01	CGST Amount as per invoice	Optio nal	Decima l(11,2)	Taxable value as per Act to be specified
3	SGSTValue	01	SGST Amount as per invoice	Optio nal	Decima l(11,2)	Taxable value as per Act to be specified
4	CESSValue	01	cess Amount as per invoice	Optio nal	Decima l(11,2)	Taxable value as per Act to be specified
5	StateCessValue	01	State cess Amount as per invoice	Optio nal	Decima l(11,2)	Taxable value as per Act to be specified
6	Rate	01	Tax Rate	Optio nal	Decima l(11,2)	Tax Rate
7	Freight	01	Charges	Optio nal	Decima l(11,2)	
8	Insurance	01	Charges	Optio nal	Decima l(11,2)	
9	Packaging and Forwarding	01	Charges	Optio nal	Decima l(11,2)	
10	Other Charges	01	Pretax/post charges	Optio nal	Decima I(11,2)	A group of business terms providing information about allowances applicable to the Invoice as a whole. A group of business terms providing information about charges and taxes other than GST, applicable to the Invoice as a whole.

11	Roundoff	01	roundoff value	Optio nal	Decima l(11,2)		The amount to be added to the invoice total to round the amount to be paid. Must be rounded to maximum 2 decimals.
12	Total Invoice Value	11	Total amount	Mand atory	Decima l(11,2)		The total amount of the Invoice with GST. Must be rounded to maximum 2 decimals.
	A 1.3.1 Batch Details	11					
S No	Parameter Name		Description		Field Specifi cations	Sample Value	
1	BatchName	11	Batch number/na me	Mand atory	string( Max length: 20)		Batch number details are important to be mentioned for certain set of manufacturers
2	BatchExpiry Date	01	Expiry Date	option al	string (DD/M M/YYY Y)		Expiry Date of the Batch
3	WarrantyDate	01	Warranty Date	Optio nal	string (DD/M M/YYY Y)		Warranty Date of the ITEM
	A 1.3.2 Serial Number Details	01					
S No	Parameter Name		Description		Field Specifi cations	Sample Value	

1	SerialNumber	11	Serial Number in case of each item having unique number	Optio nal	string( Max length: 15)		0
2	OtherDetail1	01	other detail of serial number	Optio nal	string( Max length: 10)		0
3	OtherDetail2	01	other detail of serial number	Optio nal	string( Max length: 10)		0
	A 1 2 2 Due Terr						
	A 1.3.3 PreTax Details						
S No			Description		Field Specifi cations	Sample Value	
	Details		Description Pretax ledger/parti culars	Optio nal	Specifi	Sample Value	0
No	Details Parameter Name		Pretax ledger/parti		Specifi cations string( Max length:	Sample Value	0

## Notes:

1. Original Form INV-01 was substituted with this w.e.f. 01-01-2020 vide Notification No. 02/2020-Central Tax, dated 01-01-2020.