Target Industry Snapshot

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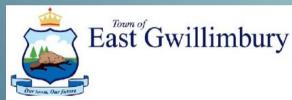




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Executive Summary

The objective of this target industry snapshot is to assess the business growth opportunities for the Town of East Gwillimbury. Recommendations in this report were anchored in an analysis of data from economic development documents in the region, industry and occupational activity in East Gwillimbury and the wider region, and postsecondary regional educational trends. The Target Industry Opportunities section highlights key sectors that have recently experienced growth in Ontario and the U.S. in order to match industries of potential relevance to East Gwillimbury. Given the impact of the COVID-19 pandemic on industries, the fallout on specific sectors was factored into the analysis.

The following table summarizes the key findings and recommendations by ROI for industry targets with a focus on industries within sectors that are demonstrating strength in the region. The recommendations also consider those industries that have shown growth in recent years and have already produced successful companies.

	Key Target Subsectors	Key Rationale
Construction Products and Services	 Engineering Structural metals Prefabricated housing Concrete products HVAC and advanced building components 	 Strong construction industry base Architectural and engineering services can be capitalized upon Rising demand for HVAC and structural/architectural metals for prefab buildings
Food Processing & Supply Chain	- Packaging - Niche food	 Strong agricultural sector Increased supply chain need for packaging across Ontario Growth of niche food products
Industry Supply Wholesale/Distribution	- Industrial products	 Highly skilled concentration of trade skills Strong logistics sector

Beyond these three core targets, with the right foundations, there are additional opportunities that present themselves in technology-related industries. These are areas that build both on key existing sector strengths as well as the existing micro-businesses and self-employed in computer and creative industries in East Gwillimbury. There are niche industries that, with a growing entrepreneurship ecosystem, could link into further growth opportunities. Niche opportunities were identified, including <u>connected logistics</u>, <u>agricultural technologies</u>, <u>cleantech</u>, especially rated to water technology, and prospects in <u>healthcare</u>.

Local Industry Review

East Gwillimbury is located at the northern end of the Regional Municipality of York, in proximity to the regional seat of Newmarket, and part of the Greater Toronto Area. Ontario Highway 404 has been extended to just south of Keswick in the Town of Georgina, passing through East Gwillimbury. Three interchanges along Highway 404 serve the town. Primary employment sectors are retail with 17% of jobs, construction with 12% of jobs, and manufacturing with 10% of jobs (Emsi, 2020.1)

The construction sector is a major sector in East Gwillimbury with over 500 registered contractors and construction businesses (Statistics Canada, Dec. 2019 Business Count). The York region represented \$3.3 billion in new construction value in 2018, which is the second-largest construction market in Ontario and the 6th largest in Canada. The York region is also home to some of the major players in construction in Canada, such as Brookfeld or SmartCentres. East Gwillimbury itself specializes not only in construction but also in equipment and operations around construction, giving it unique leverage vis-à-vis the York region. Key companies include micro-tunneling company Technicore, which has been responsible for projects such as the Billy Bishop Toronto Island Airport tunnel. Geo. A Kelson's primary business is as a mechanical systems contracting firm that has built major hospitals, universities, and large commercial projects across the GTA.

As York's top producer of agriculture, East Gwillimbury accounts for 32% of agricultural production in the region with gross farm receipts totalling \$96,797,280 (2016 Census of Agriculture). Representing 15% of the region's employment, some of the agricultural highlights in East Gwillimbury include A E Natural Meats. Other farmland use relates to the recreation sector, with over 20% of farms dedicated to horse farming and equine production in East Gwillimbury

Other key sectors in the area of East Gwillimbury include manufacturing, which boasts a high location quotient. A location quotient is an analytical statistic that measures a jurisdiction's industrial specialization relative to a larger geographic unit; in this case, Canada. It is the share of jobs in a certain industry higher or lower than what is typical for the nation. A high location quotient can be used to highlight the potential for cluster development within a specific industry.

The region of York is Ontario's second-largest manufacturing hub and fourth-largest in Canada. East Gwillimbury itself is home to Multimatic (Dynamic Suspensions), a global supplier of automotive parts, as well as Inscape Office Interiors, an office furniture company established in 1888 that has been serving the Government of Canada as well as U.S. National, Federal and State levels. Inscape is one of the town's largest employers, employing around 350 people.

Industry Assets

The Statistics Canada December 2019 Business Count recorded 945 payrolled businesses in the municipality of East Gwillimbury with 65% representing micro-businesses of less than 5 employees and another 17% with 5-10 employees. According to the 2016 Census, 10% of East Gwillimbury workers worked from home, and 14% did not have a fixed workplace address (such as contractors).

Farms are a big part of the East Gwillimbury economy. They account for 117 business locations, including those who are self-employed. However, East Gwillimbury's main traded industry strengths can be found in construction, both in companies serving local customers and those serving outside the region (traded sectors), representing 20% of payrolled businesses. Residential building construction and building equipment contractors dominate (Table 2). Freight trucking comes up as another industrial strength, accounting for 11 payrolled business locations and one of the larger employers in the area. General freight trucking has also been one of the fastest-growing sectors.

Professional services ranging from design, advertising/P.R. to computer management, and computer systems designs are the town's next strength in traded industries, representing 14% of payrolled businesses and some of the fastest-growing job numbers. There are a large number of microbusinesses in computer systems design and related services, which include website development, I.T. services or I.T. consulting, and an almost equal number of self-employed. Examples include ZOOMIZED and Aurora Online (Mount Albert) and Robert Brooks Consulting. However, as the majority of these businesses are very small scale and/or home businesses, they are not easily identified with standard business listing services or job websites.

NAICS	Description	Payrolled	Micro-	Self-Employed
		Establishments	Businesses (1-4)	
5415	Computer systems design and related services	42	39	54
1110	Farms	31	13	86
5416	Management, scientific and technical consulting services	21	21	92
5419	Other professional, scientific and technical services	21	14	28
5239	Other financial investment activities	20	20	111
5412	Accounting, tax preparation, bookkeeping and payroll services	16	15	54
5413	Architectural, engineering and related services	13	10	16
5414	Specialized design services	13	10	20
2362	Non-residential building construction	12	5	7
4841	General freight trucking	11	6	30
4842	Specialized freight trucking	11	6	12
7139	Other amusement and recreation industries	11	4	7
1150	Support activities for farms	6	5	9
5418	Advertising, public relations, and related services	6	4	21
5511	Management of companies and enterprises	4	3	16
2371	Utility system construction	3	2	5
3327	Machine shops, turned product, and screw, nut and bolt mfg	3	1	3
4541	Electronic shopping and mail-order houses	3	3	15
5614	Business support services	3	3	17
6114	Business schools and computer and management training	3	3	2

Table 1 – East Gwillimbury Traded Industry Strengths by Business Locations

Source: Stats Canada, Emsi 2020.1

Specialized design services jobs have increased by 67% in the last five years, as have jobs in advertising and P.R. with a 126% increase, totalling 95 jobs in 2020 (Table 3). These are jobs located in East Gwillimbury, rather than Census counts of residents holding these jobs. These are areas of

strength in nearby Newmarket as well, such as the digital marketing agency Treefrog. While the majority of the over 200 jobs in the motion picture and video industries reflect movie theatres, there are some niche companies active in the creative sector. LinkThree Media in Keswick is working in that space, and Newmarket and Georgina show activities with companies such as Play Safe Production. There is only a small presence of film and video production companies in the York region (<15), but it is a thriving sector for small film and marketing companies and startups that can take advantage of natural amenities.

NAICS	Description	Payrolled Businesses	Micro- Businesses (1-4)	Indeterminate
5617	Services to buildings and dwellings	57	38	48
2382	Building equipment contractors	48	31	61
2361	Residential building construction	45	32	77
7225	Full-service restaurants and limited-service eating places	36	10	17
2389	Other specialty trade contractors	28	13	46
2383	Building finishing contractors	27	22	78
5311	Lessors of real estate	20	17	408
2381	Foundation, structure, and building exterior contractors	18	11	38
8111	Automotive repair and maintenance	17	14	22
6213	Offices of other health practitioners	12	10	47
4451	Grocery stores	11	6	3
6116	Other schools and instruction	9	4	27
6212	Offices of dentists	9	4	5
5121	Motion picture and video industries	8	6	8

Table 2 – East Gwillimbury Local-Serving Industry Strengths by Business Locations

Source: Stats Canada, Emsi 2020.1

Table 3 – East Gwillimbury Traded Industry Strengths by Job Counts

NAICS	Description	2020 Jobs	2014 - 2020 % Change	2020 Location Quotient	Wages per Job, 2019
3372	Office furniture (including fixtures) manufacturing	379	-7%	32.02	\$45,774
3363	Motor vehicle parts manufacturing	189	-4%	4.70	\$70,550
5415	Computer systems design and related services	187	65%	0.93	\$88,565
4841	General freight trucking	169	92%	1.47	\$50,604
4842	Specialized freight trucking	121	-28%	2.10	\$48,576
5416	Management, scientific and technical consulting services	98	-10%	0.92	\$59,190
5418	Advertising, public relations, and related services	95	126%	1.81	\$50,609
5414	Specialized design services	77	67%	2.31	n/a
5419	Other professional, scientific and technical services	70	4%	1.19	\$62,305
2131	Support activities for mining, and oil and gas extraction	60	150%	1.21	\$84,156

Source: Emsi, 2020.1

The manufacturing sector in East Gwillimbury is small but varied, with a strong presence of machine shops supporting fabricators, several food product manufacturers, and a presence of furniture and textiles (Table 4). The mix also includes a variety of construction-related industries such as architectural metals, cement/concrete manufacturing, and wood processing and products, and automotive parts company Multimatic. A note about the government statistics as processed by Emsi (www.economicmodeling.com) is that, for example, motor vehicle parts manufacturing that Multimatic presents, does not show up under payrolled businesses. It does, however, appear to reflect a count under the category of "indeterminate", a category usually focused on contract, family and self-employed workers. However, as Statistics Canada points out, this category is not derived from the same source as the business counts, the former based on data derived from payroll remittances. In contrast, the latter is based on the Business Registrar. In this case, the Business

Registrar records a substantial employer in hardware manufacturing in East Gwillimbury, with 200-500 employees that is believed to be Multimatic's business activity.

East Gwillimbury is similar to nearby Newmarket that also demonstrates some niche food processing (sugar and confectionary), a strong construction focus, including a presence of architectural and structural metal manufacturing and a high concentration of architectural and engineering services as well as several niche manufacturers, including advanced tech companies such as automation equipment manufacturer Mecsmart.

NAICS	Description	Payrolled Establishments	Micro-Businesses (1-4)	Indeterminate
311	Food manufacturing	6	1	3
332	Fabricated metal product manufacturing	5	1	6
321	Wood product manufacturing	3	2	7
325	Chemical manufacturing	3	3	2
339	Miscellaneous manufacturing	2	1	7
333	Machinery manufacturing	2	1	4
314	Textile product mills	2	0	3
323	Printing and related support activities	1	1	5
337	Furniture and related product manufacturing	1	0	2
316	Leather and allied product manufacturing	1	0	0
331	Primary metal manufacturing	1	1	0
327	Non-metallic mineral product manufacturing	1	0	0
336	Transportation equipment manufacturing	0	0	3
315	Clothing manufacturing	0	0	3
334	Computer and electronic product manufacturing	0	0	2
326	Plastics and rubber products manufacturing	0	0	1
335	Electrical equipment, appliance and component mfg	0	0	1

Table 4 – East Gwillimbury Manufacturing Sectors by Business Counts, Dec. 2019

Source: Stats Canada, Emsi 2020.1

The most concentrated occupations in a one-hour drive radius, including the York, Durham, and Simcoe census divisions, are assembly and fabrication jobs in furniture, electronics, automotive, and general metal, as well as rubber & plastic products. In the wider York region, motor vehicle parts manufacturing is a stronghold accounting for over 11,000 jobs (Table 5). Computer and electronic product manufacturing have a high specialization in the area with a location quotient of around 3 for that NAICS cluster (334). A substantial wholesale sector offers several growth areas such as pharmaceuticals and computer equipment wholesale. The fastest-growing sector seems to be professional, scientific, and technical services, especially architectural and engineering and computer systems design, with a growth of 38% over the last five years. These jobs are accounted for by over 3,800 business locations.

Moreover, management, scientific and consulting services mirror the relative strength of the same industry in East Gwillimbury, such as advertising/P.R. and specialized design services accounting. Other notable takeaways include the large presence of company headquarters and employment services. Nearby Newmarket also boasts strength in legal, accounting, human resource management, communications, as well as technology and technical consultants.

The strength of the regional healthcare and life science sector lies in a substantial medical equipment sector as well as a surge in ambulatory health services and wholesale activity. As a health care hub, the York region boasts over 300 bio-pharma and health technology firms, including AB Sciex, Alexion Pharma, Allergan, Amico Group, Apotex, Astellas Pharma, Cardinal Health, Johnson & Johnson.

NAICS	Description	2020 Jobs	2014 - 2020 % Change	2020 Location Quotient	Payrolled Establishments, Dec. 2019
3133	Textile and fabric finishing and fabric coating	182	-38%	3.30	7
3231	Printing and related support activities	4,616	-5%	2.46	269
3261	Plastic product manufacturing	6302	8%	2.17	134
3272	Glass and glass product manufacturing	724	-18%	2.49	46
3312	Steel product manufacturing from purchased steel	864	-2%	2.84	10
3323	Architectural and structural metals manufacturing	3,669	18%	1.65	122
3325	Hardware manufacturing	1,143	-12%	5.16	16
3335	Metalworking machinery manufacturing	1,698	-1%	2.44	82
3341	Computer and peripheral equipment manufacturing	724	78%	3.73	14
3342	Communications equipment manufacturing	1,608	-7%	4.18	25
3343	Audio and video equipment manufacturing	164	67%	3.70	5
3344	Semiconductor and other electronic component mfg	1,757	0%	2.99	31
3363	Motor vehicle parts manufacturing	11,019	-2%	4.41	68
3371	Household & institutional furniture & kitchen cabinet mfg	2,979	17%	1.73	185
3372	Office furniture (including fixtures) manufacturing	2,783	-6%	3.79	71
3379	Other furniture-related product manufacturing	640	84%	3.89	24
3391	Medical equipment and supplies manufacturing	1,534	10%	2.06	77
4173	Computer & communications equipment & supplies merchant wholes.	9,614	21%	4.69	437
4131	Food merchant wholes.	6,343	17%	1.53	768
4179	Other machinery, equipment & supplies merchant wholes.	5,687	3%	2.26	623
4145	Pharmaceuticals, toiletries, cosmetics & sundries merchant wholes.	5,441	43%	3.30	304
4163	Lumber, millwork, hardware & other building supplies merchant wholes.	4,630	11%	1.96	475
4161	Electrical, plumbing, heating & air-conditioning equipment & supplies merchant wholes.	4,340	8%	2.45	366
4182	Paper, paper product & disposable plastic product merchant wholes.	1,793	14%	2.93	143
4152	New motor vehicle parts and accessories merchant wholes.	1,535	34%	1.19	148
4151	Motor vehicle merchant wholes.	1,515	81%	1.68	192
4143	Home furnishings merchant wholes.	1,503	27%	3.19	283
5239	Other financial investment activities	4,869	12%	1.11	688
5241	Insurance carriers	4,805	28%	1.01	63
5331	Lessors of non-financial intangible assets (exc. copyrighted works)	644	36%	2.54	42
5413	Architectural, engineering and related services	11,562	13%	1.32	853
5414	Specialized design services	2,989	45%	1.45	316
5415	Computer systems design and related services	24,508	38%	1.97	3,815
5416	Management, scientific and technical consulting services	10,339	35%	1.57	1,503
5418	Advertising, public relations, and related services	5,637	63%	1.74	335
5419	Other professional, scientific and technical services	3,653	-7%	1.00	635
5511	Management of companies and enterprises	3,551	-2%	0.95	276
5613	Employment services	9,943	14%	1.37	239
6219	Other ambulatory health care services	423	103%	0.31	41

Table 5 – York Municipality Industry Strengths

Source: Emsi, 2020.1, York Census Division, jobs including self-employed

Workforce Assets

In addition to an above-average concentration of jobs in **agriculture**, **transportation**, **and material handling** and processing, East Gwillimbury offers a high and growing share of **information systems analysts and consultants**. **Computer programmers and interactive media developers**, **and graphic designers** are on the rise as well, most likely connected to the advertising industries and the many small and home-based businesses in computer systems design (Table 6). The 2016 Census highlighted that 250 East Gwillimbury residents were trained in the field of computer and information sciences and support services. **Construction and furniture-related jobs** stand out again as well, such as interior designers, HVAC mechanics, and furniture assemblers. **Trucking** and automotive stands out with a high concentration of technicians, shippers, and assemblers. Lastly, there is a strong presence of **sales and administrative** workers, especially in wholesale as well as general administrative and office workers, as well as a high concentration of **manufacturing managers**. According to the 2016 Census, only 12% of East Gwillimbury workers actually work in the municipality.

NOC	Description	2020 Jobs	2014 - 2020 % Change	2020 Location Quotient
7511	Transport truck drivers	223	7%	1.25
6411	Sales and account representatives - wholesale trade (non-technical)	158	41%	1.04
7452	Material handlers	149	21%	1.27
1111	Financial auditors and accountants	139	29%	1.14
2171	Information systems analysts and consultants	134	100%	1.05
1411	General office support workers	124	7%	1.04
9532	Furniture and fixture assemblers and inspectors	119	61%	7.97
1221	Administrative officers	111	25%	0.88
1311	Accounting technicians and bookkeepers	97	29%	0.96
2174	Computer programmers and interactive media developers	96	78%	0.99
7321	Automotive service technicians, truck & bus mechanics, mechanical repairers	92	5%	1.29
1431	Accounting and related clerks	89	6%	0.97
1241	Administrative assistants	88	193%	0.76
1521	Shippers and receivers	88	-2%	1.19
6552	Other customer and information services representatives	88	7%	0.85
7521	Heavy equipment operators (except crane)	85	52%	1.73
1123	Professional occupations in advertising, marketing, public relations	82	71%	1.05
1122	Professional occupations in business management consulting	66	-6%	1.08
5241	Graphic designers and illustrators	64	36%	1.43
0911	Manufacturing managers	61	33%	1.33
0821	Managers in agriculture	50	-37%	0.61
6221	Technical sales specialists - wholesale trade	49	26%	0.63
5242	Interior designers and interior decorators	48	50%	2.87
7313	Heating, refrigeration and air conditioning mechanics	45	114%	2.58
9619	Other labourers in processing, manufacturing and utilities	43	-10%	2.05
9418	Other metal products machine operators	40	33%	2.08
9522	Motor vehicle assemblers, inspectors and testers	32	-9%	2.05
9224	Supervisors, furniture and fixtures manufacturing	29	7%	5.89

Source: Emsi, 2020.1

<u>Newmarket</u> has a high location quotient for hardware manufacturing, while motor vehicle parts and motor vehicle manufacturing (Magna International divisions) combined are responsible for the creation of 2,342 jobs. Other key takeaways are advertising/P.R. services, computer systems design, and specialized design services that mirror East Gwillimbury's strengths. HVAC equipment and Medical diagnostic laboratories have seen some of the strongest job growth.

NAICS	Description	2020 Jobs	2014 - 2020 % Change	2020 Location Quotient
3363	Motor vehicle parts manufacturing	1,928	23%	10.4
5415	Computer systems design and related services	1,210	53%	1.3
5416	Management, scientific and technical consulting services	770	54%	1.6
5614	Business support services	718	38%	3.0
5242	Agencies, brokerages and other insurance related activities	442	14%	1.5
6239	Other residential care facilities	439	25%	3.1
5419	Other professional, scientific and technical services	427	4%	1.6
3325	Hardware manufacturing	382	-28%	23.1
3361	Motor vehicle manufacturing	360	23%	3.3
5418	Advertising, public relations, and related services	357	67%	1.5
3339	Other general-purpose machinery manufacturing	354	18%	4.2
5414	Specialized design services	296	74%	1.9
3335	Metalworking machinery manufacturing	251	-15%	4.9
3334	HVAC equipment mfg	204	87%	4.6
4431	Electronics and appliance stores	191	-21%	1.3
5111	Newspaper, periodical, book and directory publishers	136	-51%	1.8
6215	Medical and diagnostic laboratories	132	74%	1.7
4191	Business-to-business electronic markets, and agents and brokers	130	7%	1.4
3113	Sugar and confectionery product manufacturing	120	7%	4.7

Table 7 – Newmarket Occupational Strengths by Location Quotient

Source: Emsi, 2020.1

The <u>York Region</u> overall has a very high specialization and growth in rubber and plastic product manufacturing occupations, furniture assemblers, elevator constructors and mechanics, and software engineers and designers (Table 8). Its largest labour pools exist in information systems analytics and consultants and computer programmers and interactive media developers, wholesale sales representatives and specialists, and financial auditors. It is also home to a substantial number of truck drivers and material handlers.

Table 8 – York Occupational Strengths

NOC	Description	2020	2014 - 2020	2020 Location
		Jobs	% Change	Quotient
7232	Tool and die makers	1,217	-20%	3,02
6232	Real estate agents and salespersons	9,926	53%	2,76
9615	Labourers in rubber and plastic products manufacturing	905	17%	2,73
9523	Electronics assemblers, fabricators, inspectors and testers	2,000	-14%	2,66
9619	Other labourers in processing, manufacturing and utilities	3,316	-6%	2,56
9532	Furniture and fixture assemblers and inspectors	2,344	84%	2,54
9537	Other products assemblers, finishers and inspectors	2,976	3%	2,40
9418	Other metal products machine operators	2,737	7%	2,32
7318	Elevator constructors and mechanics	542	55%	2,25
7303	Supervisors, printing and related occupations	610	0%	2,25
9534	Furniture finishers and refinishers	568	-9%	2,21
9471	Plateless printing equipment operators	602	29%	2,13
2173	Software engineers and designers	4,226	85%	2,05
9416	Metalworking and forging machine operators	2,134	-24%	1,97
9422	Plastics processing machine operators	1,544	1%	1,95
9522	Motor vehicle assemblers, inspectors and testers	1,791	-17%	1,87
7313	Heating, refrigeration and air conditioning mechanics	2,030	39%	1,86
6411	Sales and account representatives - wholesale trade (non-technical)	14,153	16%	1,51
1111	Financial auditors and accountants	10,237	19%	1,35
6232	Real estate agents and salespersons	9,926	53%	2,76
7452	Material handlers	9,828	19%	1,34
2174	Computer programmers and interactive media developers	9,405	35%	1,55
7511	Transport truck drivers	8,500	16%	0,77
6221	Technical sales specialists - wholesale trade	7,643	11%	1,57

Source: Emsi, 2020.1, York Census Division

The main postsecondary education providers in the region are Georgian College of Applied Arts and Technology, Durham College of Applied Arts and Technology, and Seneca College. Program output is particularly active in **business services**, **healthcare**, and **engineering**, including mechanical, electrical, nuclear, and computer engineering. Electrical/electronic and specialized engineering programs have seen the strongest output growth. Healthcare programs, including the local offerings from Seneca College, have seen growth between 2012 and 2016 as well.

CIP Code	Description	Regional Completions, 2016	Regional Completions Change (2012-2016)
45.04	Criminology	256	33%
52.01	Business/commerce, general	252	-5%
51.00	Health services/allied health/health sciences, general	174	61%
51.38	Registered nursing, nursing administration, nursing research & clinical nursing	174	21%
14.19	Mechanical engineering	127	17%
14.10	Electrical, electronics and communications engineering	100	194%
26.01	Biology, general	99	55%
11.01	Computer and information sciences and support services, general	93	19%
13.01	Education, general	85	-69%
14.23	Nuclear engineering	76	36%
14.99	Engineering, other	69	103%
42.28	Clinical, counselling and applied psychology	60	Insf. Data
22.00	Non-professional general legal studies (undergraduate)	51	6%
42.01	Psychology, general	48	0%
09.01	Communication and media studies	42	-7%
51.10	Clinical/medical laboratory science/research and allied professions	37	61%
11.07	Computer science	27	0%
14.09	Computer engineering	24	85%

Table 9 - Educational Completions East Gwillimbury wider Region by Program

Source: Emsi, 2020.1

Target Industry Opportunities

Beyond the existing East Gwillimbury industry and workforce assets, it is also important to follow industry performance trends for the wider region. Where have the York Region and the Province of Ontario been succeeding and where could East Gwillimbury link into that success story. Examining the strengths of Ontario as a region, individual growth opportunities can be highlighted in advanced manufacturing, food processing, construction, I.T. and business services, distribution and warehousing, healthcare and creative industries (Table 10).

NAICS	Description	2020 Jobs	2014-2020 % Change
Construc	tion		
2362	Non-residential building construction	38,253	26%
3323	Architectural and structural metals manufacturing	23,701	9%
5413	Architectural, engineering and related services	92,016	16%
3339	Other general-purpose machinery manufacturing	17,176	11%
2379	Other heavy and civil engineering construction	6,489	116%
3331	Agricultural, construction and mining machinery manufacturing	9,467	17%
3334	HVAC manufacturing	6,354	34%
4161	Electrical, plumbing, heating & air-conditioning equipment & supplies wholes.	24,290	10%
Warehou	sing & Distribution		
4931	Warehousing and storage	29,359	52%
4885	Freight transportation arrangement	21,038	14%
4179	Other machinery, equipment and supplies merchant wholesalers	39,482	13%
4541	Electronic shopping and mail-order houses	12,968	40%
Food pro	cessing		
3116	Meat product manufacturing	21,455	9%
3121	Beverage manufacturing	18,372	24%
3115	Dairy product manufacturing	10,046	24%
3118	Bakeries and tortilla manufacturing	25,519	11%
I.T. & Bus	iness Services		
5415	Computer systems design and related services	181,636	40%
5416	Management, scientific and technical consulting services	91,208	19%
5112	Software publishers	26,493	79%
Advanced	l manufacturing		
3364	Aerospace product and parts manufacturing	14,660	24%
3329	Other fabricated metal product manufacturing	11,145	17%
3344	Semiconductor and other electronic component manufacturing	8,313	28%
3256	Soap, cleaning compound and toilet preparation manufacturing	10,018	29%
3261	Plastic product manufacturing	44,192	6%
3332	Industrial machinery manufacturing	8,020	29%
Creative	ndustries		
5121	Motion picture and video industries	37,578	55%
5414	Specialized design services	30,029	38%
5418	Advertising, public relations, and related services	55,389	32%
Healthca	re la		
6214	Out-patient care centres	41,669	15%
6219	Other ambulatory health care services	9,463	74%
6223	Specialty (except psychiatric and substance abuse) hospitals	11,059	22%
6215	Medical and diagnostic laboratories	14,452	24%

Table 10 - Ontario High-Growth Industries

Source: Emsi, 2020.1

In relation to East Gwillimbury's focus areas, the construction sector contains several large and high growth industries, including architectural and structural metals, which include prefabricated housing and a small but high growth HVAC equipment sector. Warehousing and distribution has been a substantial job provider in the Province as well, linking back to the notable trucking presence in East Gwillimbury.

In the agri-food sector, the beverage and dairy products have seen the strong growth in net new jobs since 2014, while the varied niche food sectors still grew 6%. Related to the sector is also the supply chain industries of packaging under plastic product manufacturing, that have seen continued job growth, also often serving the growing medical supplies market as well.

Computer systems design and software publishers have seen some of the strongest growth in the Province, complemented by a substantial consulting sector. In line with East Gwillimbury and the York Region's strengths, motion picture, and design services have seen a considerable surge over the last few years. Finally, the healthcare sector has accelerated, especially in outpatient and ambulatory care, as well as specialty hospitals.

Table 11 highlights in contrast U.S. niche industries in the East Gwillimbury focus areas that have shown expansion, either with new jobs or new facilities. Using these as a guide in combination with existing provincial and East Gwillimbury assets helps in prioritizing the most viable niche opportunities in terms of industries that are faring well across North America. These subsectors are taken into consideration when the overall target sectors for East Gwillimbury are determined, to highlight specific opportunities within each sector that show growth signals across North America.

NAICS	Description	2015 - 2020 % Change	2019 Payrolled Establishments
Constructi	on	en ange	
321213	Engineered Wood Member (except Truss) Manufacturing	23%	161
321214	Truss Manufacturing	26%	870
324121	Asphalt Paving Mixture and Block Manufacturing	20%	920
327991	Cut Stone and Stone Product Manufacturing	22%	2,597
332311	Prefabricated Metal Building and Component Manufacturing	14%	1,052
337212	Custom Architectural Woodwork and Millwork Manufacturing	33%	1,661
Warehousi			,
493110	General Warehousing and Storage	60%	13,682
493120	Refrigerated Warehousing and Storage	22%	1,432
493190	Other Warehousing and Storage	22%	2,535
541614	Process, Physical Distribution, and Logistics Consulting Services	27%	15,172
Food Proc	essina		
311111	Dog and Cat Food Manufacturing	25%	614
311111	Dog and Cat Food Manufacturing	25%	614
311513	Cheese Manufacturing	26%	676
311941	Mayonnaise, Dressing, and Other Prepared Sauce Manufacturing	31%	395
311991	Perishable Prepared Food Manufacturing	31%	1,395
312120	Breweries	87%	4,581
326112	Plastics Packaging Film and Sheet (including Laminated) Manufacturing	19%	426
IT & Busin	ess Services		
511210	Software Publishers	41%	33,136
518210	Data Processing, Hosting, and Related Services	19%	25,707
519130	Internet Publishing and Broadcasting and Web Search Portals	55%	16,741
541511	Custom Computer Programming Services	21%	126,545
541512	Computer Systems Design Services	19%	134,097
541611	Administrative Management and General Management Consulting Services	33%	112,448
Creative In			
512199	Other Motion Picture and Video Industries	20%	515
541410	Interior Design Services	19%	14,391
541490	Other Specialized Design Services	18%	4,146
541613	Marketing Consulting Services	27%	53,442
Healthcare			, ,
621498	All Other Outpatient Care Centers	39%	8,118
621999	All Other Miscellaneous Ambulatory Health Care Services	31%	6,947
621493	Freestanding Ambulatory Surgical and Emergency Centers	31%	7,605
621420	Outpatient Mental Health and Substance Abuse Centers	23%	11,152

Table 11 - U.S. High-Growth Niche Industries pre-COVID-19

Source: Emsi, 2020.2

COVID-19 Impact

Based on U.S. employment and industrial production trends as of May 2020, much of what we hear in the news is, of course, confirmed: the collapse in leisure and hospitality, in-store retail, with a slow uptick in May and early June due to reopening efforts. The least impacted sectors in terms of employment so far have been **mining and logging, utilities**, the **information sector**, and **financial services**. **Transportation**, **warehousing**, and **wholesale** have experienced a below average decline in employment as well. Manufacturing and construction have seen some recovery in May employment numbers.

But for massive and diverse sectors such as manufacturing and professional and business services, it is necessary to dig a bit deeper. The U.S. Federal Reserve Board industrial production index indicated some industries have fared better due to higher demand created by COVID-19, such as certain food sectors, **computer equipment** or paper or certain **plastics and chemicals**. Many show, however, a very mixed experience, or the economic impact has not fully shown up yet in the data: some chemicals have experienced substantial supply chain disruptions, but at the same time, other subsectors have fed into essential industries such as pharmaceuticals manufacturing. The data is unspecific on whether certain types of businesses have fared better than others, whether by size, internationalization, or diversity of the customer base.

The impact on industrial manufacturing and transportation sector has also been confirmed by ROI's corporate survey. However, there have been some opportunities on the horizon. Of over 320 companies surveyed globally by ROI between March and May 2020, when questioned on whether the impact of the crisis was severe, the <u>least</u> affected sectors seemed to be in **Transportation & Logistics**, with a mixed result for **Computer & Electronic**s and **Energy & Utilities**. The Software & Applications sector surveyed included many smaller accelerating companies that saw either funding or demand halted, especially for the industrial market. However, over 90% of these companies still expect a turnaround within 2020. Healthcare and Life Sciences have been mixed as well.

For industries that are highly export-oriented such as pharmaceuticals, transportation equipment, machinery and machine tools, corn and soybeans, the collapse in demand from China, and the ongoing uncertainties about future global demand (as well as trade policies) have had a substantial impact on export revenue. Telecommunication equipment, instruments, and plastics have seen a notable drop in exports a well since January. Overall, **food & beverages, medical equipment,** and **semiconductors** have been the least impacted.

NICHE OPPORTUNITIES

There are several niche sectors that were already trending well and, so far, held on to their growth in 2020, many accelerated by COVID-19. Some experienced short-term bursts in demand, such as packaged food. In contrast, others in, for example, the I.T. sectors have just solidified and accelerated their growth. Trends driven by remote work, social distancing guidelines for manufacturing, and the demand from the healthcare sector have pushed many sectors along. We have seen in Q1 2020 (PwC) highly trending investment areas such as **biotech** and **medical devices** accelerating, but also business software, whether **scientific, engineering**, or **accounting applications**. **eCommerce** and

consumer electronics have accelerated and are expected to persist in the new normal, while some emerging sectors in artificial intelligence, supply chain tech and robotics, and smart city technology have been tasked to help transition society. Though there was a slight decline, the impact of COVID-19 on the pharmaceutical market is projected to be positive during 2020 and 2021 (Fortune Business Insights). Additionally, the increased demand for medical supplies and equipment, including PPE means the sector in North America due to a see a sharp increase (Research and Markets).

Of course, many of these trends are driven by small innovators and startups and do not necessarily represent relevant opportunities for significant physical expansion activities. The trends are also reflective of a small handful of very dominant players like Google. One notable exception is the Industry 4.0 development that is driving the development of advanced and connected machinery. The adoption of automation and robotics is expected to accelerate during 2020 to accelerate productivity and remain internationally competitive, especially within the recent re-shoring trends discussed in the next section. The average CAPEX of companies investing in industrial automation facilities in the past five years in the U.S. has been around \$10 million (fDiMarkets), doubling in project numbers between 2018 and 2019. Machinery and major equipment manufacturers were driving the CAPEX, while smaller components and instruments were closer to an average CAPEX of below \$5 million. fDiMarkets reported over 570 projects in the U.S. since 2015 by over 300 different companies. A lot of the projects were, however, sales offices with lower CAPEX, coupled with a handful of substantial investments. The first guarter of 2020 has already seen more 14 major projects in the U.S., mostly captured under general-purpose machinery. The Industry 4.0 market is estimated to be valued USD 71.7 billion in 2019 and is expected to reach USD 156.6 billion by 2024, at a CAGR of 16.9% from 2019 to 2024 (Research and Markets).

Where East Gwillimbury regional Assets and national trends align

- East Gwillimbury's agricultural sector and the continued growth in niche food sectors and its supply chain
- The acceleration in the distribution and linked trucking sector together with supply chain needs in packaging
- A strong regional and national construction services and products sector that is expected to pick up again in 2020 with needs in engineering services, architectural and structural metals, and construction products
- The more crisis-resistant IT and creative occupations such as graphic design, information systems analysts and consultants, and computer programmers and interactive media developers
- An ongoing and accelerated need for healthcare services and regional assets, supported by a regional education pipeline
- Management/business and office support occupations present in the region and from the postsecondary educational output that can support local business growth

Industry Profiles

Beyond the data analysis, a final step in recommending key target industries for East Gwillimbury is to understand the most important emerging trends that affect each sector that might impact investment attraction efforts and priorities. The following profiles will highlight the most promising subsectors and technologies that can be linked to assets in the region and hence provide a stronger selling proposition. It is followed by some future opportunities in technology-related areas that could be developed.

Construction Products and Services

Trends in Ontario and Toronto Region

The 2019–2028 outlook scenario for Ontario projects overall employment will be sustained at high levels over the decade. Overall, non-residential employment is anticipated to rise by 14,000 jobs (+8%) over the next four years and by 17,000 over the entire coming decade, compared to the 2018 starting point (<u>Construction Forecasts</u>). COVID-19 has impacted the construction industry in Ontario. Although it shows a significant slowdown in construction market activity during Q1, Ontario has fared better than the rest of Canada. There has been an increase in workloads across most segments of the construction, and in Q4 the market appears to be in somewhat of a 'holding pattern', with activity neither increasing nor decreasing (<u>RICS</u>). Investing in Canada Plan, which is the largest long-term infrastructure plan in Canadian history, is expected to accelerate especially commercial and infrastructure projects (<u>Government of Canada</u>).

Opportunities for East Gwillimbury

In this context, East Gwillimbury's promising niche sectors are **architectural and engineering services**, given the concentration of jobs in construction, graphic design, and HVAC mechanics. Overall, the town's workforce strength lies in assembly workers and material handling occupations together with several major construction-related company assets.

Success stories in nearby areas such as Newmarket give a good idea of the kinds of companies that can flourish in the wider York and Ontario ecosystem. For example, in 2017, MiTek, a global supplier of engineered products and services for the building components industry, established its headquarters in Bradford, Ontario. The company is a global supplier of builder products, collaborative software, engineering services, and manufacturing equipment to the residential, commercial, and industrial construction sectors. While the company specialises in engineering, it also expands into software and other related services. Engineering services for data centers are also on the rise, with the current crisis accelerating the use of cloud infrastructure. Unity Systems Integration in Newmarket is such a company that serves the data center market across North America.

Some of the trends that the construction trends that Ontario has seen are the proliferation of green buildings and smart **HVAC** control. The APAC market is currently a bright spot with public infrastructure projects and increased investment both in smart city projects and in the general construction market. There is a growing demand for high-performance HVAC equipment, and that segment is expected to grow driven by wider provincial, federal, and U.S. standards with users such

as East Gwillimbury's Kelson. HVAC product manufacturers such as Newmarket Spinnaker Industries have thrived in the region as well.

AMG Metals, which produces metal and aluminum structures and railings, links to a wider trend in **architectural and structural metals** in the York region, where the industry has grown jobs by 18% since 2015, with over 120 businesses. The sector is also feeding into growth for **prefabricated housing.** This sector is in line with the town's workforce strengths as well as being the subject of success stories in Ontario. Barrie Builds is a well-established company that has been building prefab houses for 30 years and exemplifies the steady demand for housing in the Ontario region. Other examples include Royal Homes, which has various design center locations in Ontario. In the context of COVID-19, the increased demand for affordable housing has the potential to spur on this sector. As the crisis continues and the economy dips overall, more and more people are unable to afford housing. Modular housing project plans have been recently adopted as a way of mitigating this problem for the under-housed (Globe and Mail).

Concrete product manufacturers have also seen steady growth from constructing activity for green buildings and highways. Typically, a highly seasonal industry and depending on U.S. construction activity for exports, R&D developments in, e.g., "Superpave," new concrete mixture designed to cure at below-freezing temperatures, now used widely by highway departments across the U.S. will help extend construction seasons and save money by eliminating the need to provide heated enclosures during concrete placement. A new high-performance fibre-reinforced concrete is expected to increase earthquake resistance of structures, making concrete more applicable in areas like California. Digital imaging and process software can help small producers achieve cost savings and target niche markets such as decorative and color concrete. With several concrete contractors and aggregate suppliers in the area such as Allconcrete and Strada, what is still less prominent are manufacturers such as ready-mix concrete company Innocon.

Food Processing & Supply Chain

Trends in Ontario and Toronto Region

One of the major drivers of Ontario's economy is agri-food, driven by <u>dairy</u>, <u>soybeans</u>, <u>wheat and</u> <u>corn</u>, <u>meat processing</u>, <u>bread</u>, <u>tortillas and bakery products</u>, <u>sugar and confectionery products</u>. Ontario boasts labour costs that are below the G7 average, apprenticeship training tax credits for skilled workers, and attractive R&D tax credits that make it a prime location for innovative food companies. York University has recently launched a <u>Food Accelerator Pilot</u> as part of its YSpace project. In partnership with The Regional Municipality of York Region and the Canadian Agricultural Partnership, a federal-provincial-territorial initiative, Food Accelerator program helps to scale high growth food and beverage ventures through customized workshops, expert mentorship, and peer-to-peer circles.

Within Ontario, Toronto dominates the provincial food industry, with more than half of all food processing in the Province taking place within the Greater Toronto area. Employing 25,000 people, it is one of the largest industrial employers in the City. It accounts for 12% of the total industrial employment. Toronto's cluster is the second largest food cluster in North America. With over 700

farms and 270 food and beverage businesses in York Region, the area plays a vital role in this ecosystem as everything from farms to food processors, grocery stores, and restaurants – provides approximately 57,000 jobs and contributes \$2.7 billion dollars to the economy. York Region is committed to supporting and promoting this important sector.

The impact of COVID-19 on food processing has resulted in shutdowns for many facilities at the beginning of the onset of lockdowns. However, as the lockdown provisions have eased, new paths forward for the industry are being paved. In particular, Marc Fortin of the Retail Council of Canada emphasized how re-shoring and local production will be a key element of the future of agri-food in Ontario and Canada more broadly. Furthermore, turning to automation in supply chain logistics will also be critical in the immediate term as improving warehouse efficiency is elemental to keeping up with demand.

Opportunities for East Gwillimbury

East Gwillimbury combines a rural location that combines access to food growers and agricultural assets with access to major urban centers such as Toronto. Freight and logistics firms are among the biggest employers in the region, which presents excellent "take to market" opportunities.

A vital supply chain element of the food and beverage industry is the **packaging** sector. Global demand for flexible packaging, which includes flexible plastic packaging, is forecast to rise 5% per year through 2024, reaching a value of \$250 billion, according to a recent report by Global Market Insights. Rising demand from health care, personal care, and food and beverage industries are expected to be among the top drivers for flexible packaging sales. The U.S. market will also see significant gains amid consumer demand for confectioneries, and dairy and medical products. Sustainability with metal packaging is another major factor expected to drive food packaging market growth through 2022. Aluminum and steel are the two most robust raw materials used for metal packaging, as they have superior recycling infrastructure as compared with other packaging materials.

With potential for more food processing activities not just in East Gwillimbury and neighboring Georgina and King Township, the potential for agri-food packaging could be substantial. Georgina is home to over 100 farms, many selling directly to consumers, and some tourism from its golf courses and its marina and King Township to the southeast is known for its horse and cattle farms as well. The neighboring <u>Durham region</u> is also a leading agricultural producer, contributing \$321.7 million to Ontario's total farm production. Food and beverage packaging makes up a big part of this sector, and companies such as Pine Valley Packaging are one of the major players that represent the diversity of opportunities in this sector. With an 80,000 square foot state-of-the-art manufacturing facility on 11 acres of land, the company has been able to re-orient and manufacture PPE to keep up with the surge in demand caused by COVID-19.

A final opportunity for East Gwillimbury is **niche food** companies that operate in confectionary and functional foods. While these companies are smaller, they respond to niches the York region is known for as well as leverage East Gwillimbury's vegetable farming assets and existing food product companies such as Lakeview Vegetable Processing. In general, the global demand for functional food and nutraceuticals foods has been booming. The most innovative food ingredients have focused on additives such as sugar replacements (e.g., Xylitol), fortification of foods with, e.g., vitamins,

replacement ingredients such as alternative proteins, trans-fat substitutes, and value-added ingredients such as new sources of fibres or probiotics. Especially in Canada, the plant-based protein has been dominating the market.

In this context, there are opportunities to leverage East Gwillimbury's farming strongholds to respond to these new demands as well as nearby assets in Georgina. Examples of successful regional projects include Portugal-based Frulact Group, a producer of fruit-based preparations, which settled in Kingston in 2016 in a 50,000 sqft plant to serve the North American market. Moving beyond this, smaller niches in snack food manufacturing companies have had a successful historical record in Ontario with companies like Super-Pufft Snacks, TWI Foods Inc., Giraffe Food & Beverage, all of which are global exporters of snack foods. Other niche sectors that are noteworthy are the 50 chocolate confectionery businesses in the region, including Nestle, Smucker Foods, Ferrero, and Mars that have been expanding in the Province. A notable expansion for Mars in 2017 was the opening of a Maltesers manufacturing facility in Newmarket.

Niche sector: Industrial Supply Wholesale/Distribution

Trends in Ontario and Toronto Region

In response to the shifting competitive environment, traditional industrial supply wholesalers with brick-and-mortar locations have closed some operations and shifted resources toward online offerings, especially since the start of the pandemic. Companies are also differentiating themselves from the likes of Amazon Business by becoming more ingrained in their customers' supply chains, advertising the expertise of service professionals, and offering on-site inventory management tools.

The York region is home to over 4,000 electrical, plumbing, heating and air-conditioning equipment and supplies merchant wholesalers and over 2,700 construction, forestry, mining, and industrial machinery, equipment, and supplies merchant wholesalers. While the impact of the pandemic has slowed down industrial production and construction, some industrial supplies wholesalers have benefited from increased demand for equipment and supplies needed to manufacture medical devices, a key employer in York.

Opportunities for East Gwillimbury

A typical industrial supply company may serve more than 1,000 customers. It may buy materials from hundreds of suppliers, either manufacturers or other wholesalers. Large distributors may carry more than 1 million different items. York is the 3rd largest manufacturing region in Ontario, fifth-largest in the country, with a substantial customer market.

With East Gwillimbury's manufacturing and logistics assets, the mix of skilled trades and business and service occupations lends itself well to these technical distribution centers. These companies are also more likely to look for leasable space, which is advantageous for East Gwillimbury with its high share of leasable land options. Companies such as Applied Industrial Technologies with a branch in Newmarket are providing technical expertise, repair services, and an extensive catalog of industrial products. Alphaterm in Markham is another example as a major importer, exporter, and distributor of industrial goods such as corrosion/abrasion-resistant and refractory materials since 1982.

Future Opportunities in Technology Sectors

The technology sector is thriving in Canada, and the York region is a key driver in the proliferation of this industry. The Information & Communications Technology (ICT) sector in Greater Toronto's York Region is over 4,300 companies strong. Most of the companies in York tech are scale-ups focused on business-to-business and enterprise-scale solutions in areas such as enterprise software, I.T. services, cloud computing, networking, and microelectronics.

According to the Economic Developers Association of Canada, 44% of job growth comes from new startups, and 55% of job growth comes from business expansions. Capitalizing on these trends is challenging for small towns that have difficulty retaining talent and may not have the resources or talent pipeline to support startups. However, the establishment of a strong entrepreneurship and startup culture has created opportunities in smaller towns when major employers have led the way and have formulated connections with incubators and startups. Other strategies have been community-led incubators that have successfully attracted startups from nearby metro areas.

An example of this can be seen in Newmarket with the Newmarket Small Business Start-up center that is a set of expert developed tools and resources which help small business owners in the local area. Success stories of small towns in Ontario capitalizing on the technology boom in Canada include Picton, Ontario. The town managed to secure a \$10-million fund to help finance early-stage companies, one of which was a Silicon Valley gaming startup called Little Think Tank that was attracted by seed money from local incubator investors, matched by funding from the federal <u>Community Futures Program</u>.

One fundamental requirement for the success of technology startups and growth companies is, however, a robust digital infrastructure. Broadband initiatives in York Region made some progress in 2019. YorkNet received \$2 million in federal funding through the Connect to Innovate program, which will be used to deploy optical fiber in rural communities, including in East Gwillimbury. Once the infrastructure is completed in 2021, YorkNet will make fibre connectivity available to internet carriers, who can, in turn, offer internet services to residents and businesses.

Opportunities for East Gwillimbury

East Gwillimbury is currently home to over 40 computer systems design and related micro-businesses (less than 10 employees) and another 50 self-employed according to the December 2019 Statistics Canada Business Count. East Gwillimbury harbors the skills and company assets that have the potential to be catalyzed by the tech sector. While attracting smaller companies is one strategy, another could be developing homegrown startups supported by economic gardening strategies and linking these smaller tech companies to the region's larger employers to work on innovative new ideas. The previous economic development strategy for East Gwillimbury pointed out the potential of partnerships such as ventureLAB, a regional innovation center located in Markham. Other regional networking partnerships will be needed to drive this sector forward. But the best recipe for growing a technology base is to link it to the existing industry or workforce assets.

Connected Logistics

One example is East Gwillimbury's high concentration of trucking companies. An accelerating technology trend poised to upend supply chain management is asset tracking. It gives companies a

way to overhaul their supply chain and logistics operations, including warehousing by giving them the tools to make better decisions and save time and money. It can include software, RFID (radio frequency identification) sensors, or telematics. A spike in eCommerce deliveries during the pandemic has increased demand for this sector. The connected logistics market is expected to grow by up to 22% annually over the next five years (Technavio). There would be a strong local consumer or rather pilot market, with freight trucking in East Gwillimbury with 22 general and specialized trucking companies in the area with companies looking for both industry and I.T. experience.

North America is expected to hold the largest market share in the connected logistics market. As the largest consumer market, North America is likely to benefit significantly from technological advancements in connected logistics, further contributing to seamless and widespread IoT adoption. Countries such as Canada, the U.S., and Mexico are the major growth drivers of the region. The strong financial position allows these countries to invest heavily in leading tools and technologies in the logistics market.

Looking at the Ontario and the Greater Toronto Area, there are several success stories providing solutions to these niche sectors. <u>Geotab</u>, in Oakville, Ontario, provides fleet management software and solutions and was ranked a Top 10 fastest-growing logistics company in Canada in 2015 and a 2017 Deloitte Technology Fast 50 company. Manufacturing Systems Corp. (MSC) is a related company in Newmarket that provides advanced warehousing and shipping systems solutions with about 20 employees.

Smart buildings and construction

Linking to the construction assets in East Gwillimbury, advanced building, and construction technologies are a potential future target sector as well. Smart buildings are green, energy-efficient, and intelligent, equipped with advanced automated infrastructure and usage sensors that control and manage aspects such as lighting and temperature, security, and energy consumption, independently or with minimal human intervention. One step before the actual building and its elements are the applications of IoT in the construction sector, whether its tracking equipment on construction sites, building sensors, or inventory assessment. IoT has made it possible to replace outdated heavy construction equipment with equipment tracking and monitoring sensors that can be controlled using indicators like vibrations and temperature fluctuations. Occupations in smart construction and buildings, must have a foundational knowledge of the sector, combined with the I.T. skills to implement the newest technologies.

A growing number of startups are permeating this industry, creating hubs in Toronto and the Greater Toronto Area. For example, <u>Alert Labs</u>, based in Kitchener, Ontario, monitors water usage, power, heating and cooling, temperature, etc., through both IoT hardware and software, to provide customers with real-time alerts for emergency events and insight with long-term big data analytics. Another example, <u>Knitt Labs</u>, based in Toronto, is an IoT hardware and software platform that tracks, measures, and monitors electricity consumption at an outlet and switch level. Prominent key players in the smart building market include IoT giants such as <u>Cisco Systems Canada Co</u>. and <u>IBM Canada</u>. Other key players within the Canadian smart building market include the <u>Mircom Group of Companies</u>, headquartered in Vaughn, Ontario. The company is an independent designer, manufacturer, and distributor of intelligent building and life safety solutions. Mircom was listed

among the top 100 ICT (information and communications technology) companies in Canada, placing #59 on the Branham300 Top 250 ICT companies.

Agritech

Agribusiness shows some promise when considered alongside industry 4.0 and the increasing momentum from precision agriculture. Global drivers of the industry have been climate change and the need to shift towards more sustainable practices. Furthermore, advances in agritech have been a major push factor for reducing production costs. A positive macro trend in the Canadian agribusiness sector to keep note of is a new-found interest in accelerating precision agriculture. R&D into how automatization can help increase crop fields in Ontario being supported by the Federal Government further promotes interest in the sector.

Due to COVID-19, the industry has seen a growth in retail demand for processed food, and a slowdown in food processing activities because of labor and raw material inputs shortages, and a decline in export and import activity. These trends have, at the same time, accelerated the need for more automation technology. Vertical farming has been part of this trend, and a success story in this sector has been Local Leaf in Barrie, Ontario. The new facility opened in January 2020 and produces hyper-local produce that is fully traceable – directly addressing many of the challenges of food production highlighted by the pandemic. In line with the general shift towards local production, Local Leaf's Barrie location services grocery stores, food service providers, and home meal kit providers within 50 kilometers of the farm. Software and even drone technology have seen increased usage. They could find local pilot applications in East Gwillimbury's farming community if surveys identify potential users and if the region can offer a reliable rural digital infrastructure.

<u>Cleantech</u>

Increasingly stringent government norms and federal energy efficiency regulations have been driving the adoption of clean technologies in the past years, combined with increasing cost efficiencies. However, a lack of commercialization opportunities and V.C. funding in Canada has always represented an incomplete ecosystem. Success stories usually hinge on local communities and regions supporting the implementation of these technologies in their backyard, helping companies pilot projects, and getting ready for scale-up and a few anchor companies driving the development.

Large metropolitan areas such as Toronto, Montreal, and, increasingly, Vancouver have carved out niches in ICT and computer services at an international scale that have made it hard for smaller areas to compete without substantial educational or research assets. However, regions have successfully launched local startups and initiatives to grow these services and tech companies, especially in collaboration with their local government and key stakeholders such as utilities and port authorities. Finding opportunities to tell such a unique local story becomes essential for further business growth and attraction. Business success has also increasingly been driven by partnerships with international companies, especially in more regulated markets. However, compared to competitors like Barrie, with educational programs at its doorsteps and a more developed technology sector, growing, attracting, and retaining these types of businesses requires a complete community commitment to integrating these technologies in their utility and government services.

East Gwillimbury's interest in cleantech is an important foundation for paving the path forward in this sector. Although the Upper York Sewage Solution project has been postponed, there are still opportunities available for smaller innovators to enter the scene. Ontario province's cleantech sector includes leaders in solar, wind, fuel cells, biofuels, and smart technology, but it has particularly earned a global reputation in water purification. Ontario's water sector includes 900 companies, 300 early-stage water technology developers, 100 technology incubators, 42 Canadian Research Chairs dedicated to water, and employs more than 22,000 people. Some of the biggest breakthroughs in water remediation have come from Ontario, including U.V. disinfection and membrane filtration, two of the most widely used technologies. Among the most recent developments is the Environmental and Related Technologies Hub (EaRTH District), a collaboration between the University of Toronto Scarborough and Centennial College to provide a knowledge and training centre focused on the development of clean technologies.

In line with East Gwillimbury's mix in talent in I.T. and engineering, there is a pipeline of talent that could support the proliferation of smart grids and metering. Smart meters have become the top IoT device among utility companies in the last several years. These devices attach to buildings and connect to a smart energy grid, which allows companies to more effectively manage energy flow into buildings. There is an increasing market for the hardware integration for smart grids that could be served by smaller companies and startups given appropriate government support and local policies. Furthermore, IoT-enabled smart devices are helping the smart energy industry in more ways than one, specifically in water, electric, oil, and gas utilities. Provincial legislation is the top driver of new smart meter installations in Ontario.

<u>Healthcare</u>

Healthcare workers are a part of the East Gwillimbury economy, with many of them commuting to Newmarket, and even beyond. The region can offer hospital-affiliated health tech innovation and accelerator programs, including CreateIT Now at Southlake Regional Health Centre, Mackenzie Innovation Institute, and ventureLAB Health Ecosphere. The area is home to four world-class regional hospitals, including Canada's first fully integrated 'Smart Hospital' (Mackenzie Health Vaughan) opening in 2020. Southlake doubled its Emergency Care capacity in 2018, and its <u>strategic plan</u> highlights the expected continued acceleration in demand for the region due to both population growth and an ageing population in the York Region.

Investments in primary healthcare very much depend on institutions following population growth and driven by innovative local healthcare systems such as Southlake Hospital. The regional market potential and proximity to customers. Increasingly, healthcare services may try to locate ambulatory and outpatient facilities on properties along the edges of their primary territory. Expanding in proximate but less dense urban areas can provide substantial cost savings for project developments in terms of the complexity of the project approval and construction. Given the regional rural communities and demographic changes, telehealth and health I.T. trends in the community and within the Seneca campus offering could provide technology opportunities for East Gwillimbury. The focus would be on entry-level technologies and creating strong local partnerships with healthcare institutions and providers.