CLUSTER LINKAGES IN CANADA
INTRODUCTION

The Institute’s cluster linkages analysis is meant to help policy makers, firms, industry organizations, and research institutions understand how different industries are connected in Canada. Strengthening and capitalizing on these linkages can help foster new growth opportunities.

Industry clusters by definition are related industries operating in a geographically proximate area. The cluster definitions, generated by Mercedes Delgado, Michael E. Porter, and Scott Stern, use various relatedness measures to categorize industries into 51 traded clusters. These measures of relatedness include: co-location of employment, co-location of establishments, input-output linkages, and labour-occupation correlation. The Institute uses these cluster categories to analyze Canadian clusters.

Linkages between different industries highlight the complementarities and interdependencies that exist between them, which matter because they foster cost and productivity gains for firms.

Beyond the linkages within a cluster, relatedness between industries from different clusters is important as well. Delgado, Porter, and Stern (2014) find that relatedness between clusters impacts agglomeration, as the strength of related clusters positively influences the growth of the industries within a cluster as well as the cluster itself. In addition, the latest regional economic development research suggests that relatedness drives regional diversification. Regions are more likely to diversify into new activities if they are related to their current activities and capabilities. Related diversification is also becoming highly relevant for policy makers in the European Union. Policies to identify and support emerging activities related to current capabilities are increasingly being used to develop new areas of growth.

Using the US cluster definitions as the base cluster categories, the Institute measured and identified other cross-sector linkages that exist between each cluster and industries within other clusters. These linkages are established based on co-location (employment correlation) and skills similarities (occupation correlation) using data from Canadian Business Counts and the 2011 National Household Survey (detailed methodology can be found in the next section). The methodology is based on the approach developed by Ketels and Protsiv (2014). The Institute’s analysis produces a ‘cloud’ of linkages around each cluster. Industries are classified as ‘strongly related’ or ‘loosely related’ to a cluster depending on how strong their linkages are to the industries within the cluster.

METHODOLOGY

Cluster definitions

Data and sources
Occupation data used were total work activity in 2010 by 4-digit National Occupational Classification (NOC) 2011 and 4-digit NAICS 2007 in Canada. Work activity refers to the number of weeks in which a person worked for pay or in self-employment in 2010 at all jobs held, even if only for a few hours. Source: 2011 National Household Survey.

Employment data used were number of employees in 2014 by 6-digit NAICS 2012 for each Census Metropolitan Area (CMA). The data were derived from establishment counts by CMA, employee size ranges, and 6-digit NAICS. Source: Canadian Business Counts.

Occupation correlation
Correlation of the occupational distribution between pairwise industries (between industry x and industry y). Occupational distribution is defined as the share of each occupation as a proportion of total occupational employment in the industry.

Employment co-location
Correlation of employment between pairwise industries.

Cluster to industry relatedness by occupation correlation
Calculated by averaging the occupation correlation between the industries in a cluster and an external industry.

Cluster to industry relatedness by employment co-location
Calculated by averaging the employment co-location correlation between the industries in a cluster and an external industry.

Relatedness Measures
Strongly Related Industries: An industry is ‘strongly related’ to a cluster if its relatedness by occupation correlation and employment co-location is in the top 5 percent amongst all external industries.

Loosely Related Industries: An industry is ‘loosely related’ to a cluster if its relatedness by occupation correlation is in the top 10 percent and employment co-location is in the top 5 percent amongst all external industries.

2 ibid.
Notes:
2. US 2012 North American Industry Classification System (NAICS) are used for industry classifications and codes.
3. Industries should not be misinterpreted as sub-clusters. For a listing of all sub-clusters, please visit the Institute’s Canadian Cluster Data portal.
4. Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014.”
CLUSTER LINKAGES

Industries in Aerospace Vehicles & Defense (7)
334511 Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
336411 Aircraft Manufacturing
336412 Aircraft Engine and Engine Parts Manufacturing
336413 Other Aircraft Parts and Auxiliary Equipment Manufacturing
336414 Guided Missile and Space Vehicle Manufacturing
336415 Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing
336419 Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing

Notes:
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Industries in Agricultural Inputs & Services (9)

- 115111 Cotton Ginning
- 115112 Soil Preparation, Planting, and Cultivating
- 115113 Crop Harvesting, Primarily by Machine
- 115114 Postharvest Crop Activities (except Cotton Ginning)
- 115115 Farm Labor Contractors and Crew Leaders
- 115210 Support Activities for Animal Production
- 325311 Nitrogenous Fertilizer Manufacturing
- 325314 Fertilizer (Mixing Only) Manufacturing

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**Industries in Apparel (6)**

- 314999 All Other Miscellaneous Textile Product Mills
- 315210 Cut and Sew Apparel Contractors
- 315220 Men's and Boys' Cut and Sew Apparel Manufacturing
- 315240 Women's, Girls', and Infants' Cut and Sew Apparel Manufacturing
- 315280 Other Cut and Sew Apparel Manufacturing
- 315990 Apparel Accessories and Other Apparel Manufacturing

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Industries in Automotive (21)

- 331511 Iron Foundries
- 331512 Steel Investment Foundries
- 331513 Steel Foundries (except Investment)
- 331523 Nonferrous Metal Die-Casting Foundries
- 331524 Aluminum Foundries (except Die-Casting)
- 331529 Other Nonferrous Metal Foundries (except Die-Casting)
- 332114 Custom Roll Forming
- 336111 Automobile Manufacturing
- 336112 Light Truck and Utility Vehicle Manufacturing
- 336120 Heavy Duty Truck Manufacturing
- 336211 Motor Vehicle Body Manufacturing
- 336310 Motor Vehicle Gasoline Engine and Engine Parts Manufacturing
- 336320 Motor Vehicle Electrical and Electronic Equipment Manufacturing
- 336330 Motor Vehicle Steering and Suspension Components (except Spring) Manufacturing
- 336340 Motor Vehicle Brake System Manufacturing
- 336350 Motor Vehicle Transmission and Power Train Parts Manufacturing
- 336360 Motor Vehicle Seating and Interior Trim Manufacturing
- 336370 Motor Vehicle Metal Stamping
- 336380 Other Motor Vehicle Parts Manufacturing
- 336392 Military Armored Vehicle, Tank, and Tank Component Manufacturing
- 336999 All Other Transportation Equipment Manufacturing

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Industries in Biopharmaceuticals (4)

- 325411 Medicinal and Botanical Manufacturing
- 325412 Pharmaceutical Preparation Manufacturing
- 325413 In-Vitro Diagnostic Substance Manufacturing
- 325414 Biological Product (except Diagnostic) Manufacturing

Notes:
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Legend
NAICS Industry Code
NAICS Industry Name
Strongly Related Industries
Central Cluster
Loosely Related Industries

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Industries in Communications Equipment & Services (8)

- 334210 Telephone Apparatus Manufacturing
- 334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing
- 334290 Other Communications Equipment Manufacturing
- 335912 Primary Battery Manufacturing
- 515210 Cable and Other Subscription Programming
- 517210 Wireless Telecommunications Carriers (except Satellite)
- 517410 Satellite Telecommunications
- 517919 All Other Telecommunications

Legend

Central Cluster
Strongly Related Industries
Loosely Related Industries

NAICS Industry Code
NAICS Industry Name
Legend

<table>
<thead>
<tr>
<th>NAICS Industry Code</th>
<th>NAICS Industry Name</th>
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</thead>
<tbody>
<tr>
<td>332312</td>
<td>Fabricated Structural Metal Manufacturing</td>
</tr>
<tr>
<td>332313</td>
<td>Plate Work Manufacturing</td>
</tr>
<tr>
<td>332312</td>
<td>Plate Work Manufacturing</td>
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<tr>
<td>332999</td>
<td>All Other Miscellaneous Fabricated Metal Product Manufacturing</td>
</tr>
<tr>
<td>32732</td>
<td>Concrete Pipe Manufacturing</td>
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<td>327410</td>
<td>Lime Manufacturing</td>
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<td>Gypsum Product Manufacturing</td>
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<td>327991</td>
<td>Cut Stone and Stone Product Manufacturing</td>
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<td>327993</td>
<td>Mineral Wool Manufacturing</td>
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<tr>
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<td>All Other Miscellaneous Nonmetallic Mineral Product Manufacturing</td>
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<td>332410</td>
<td>Power Boiler and Heat Exchanger Manufacturing</td>
</tr>
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<td>332420</td>
<td>Metal Tank (Heavy Gauge) Manufacturing</td>
</tr>
<tr>
<td>332513</td>
<td>Plumbing Fixture Fitting and Trim Manufacturing</td>
</tr>
<tr>
<td>332996</td>
<td>Fabricated Pipe and Pipe Fitting Manufacturing</td>
</tr>
</tbody>
</table>

Industries in Construction Products & Services (20)

221310 Water Supply and Irrigation Systems
221330 Steam and Air-Conditioning Supply
236210 Industrial Building Construction
237120 Oil and Gas Pipeline and Related Structures Construction
237130 Power and Communication Line and Related Structures Construction
237990 Other Heavy and Civil Engineering Construction
324121 Asphalt Paving Mixture and Block Manufacturing
324122 Asphalt Shingle and Coating Materials Manufacturing
327310 Cement Manufacturing
327311 Concrete Block and Brick Manufacturing

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Industries in Distribution & Electronic Commerce (62)

- 423210 Furniture Merchant Wholesalers
- 423220 Home Furnishing Merchant Wholesalers
- 423410 Photographic Equipment and Supplies Merchant Wholesalers
- 423420 Office Equipment Merchant Wholesalers
- 423430 Computer and Computer Peripheral Equipment and Software Merchant Wholesalers
- 423440 Other Commercial Equipment Merchant Wholesalers
- 423450 Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers
- 423460 Ophthalmic Goods Merchant Wholesalers
- 423490 Other Professional Equipment and Supplies Merchant Wholesalers
- 423510 Metal Service Centers and Other Metal Merchant Wholesalers
- 423520 Coal and Other Mineral and Ore Merchant Wholesalers
- 423610 Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers
- 423620 Household Appliances, Electric Housewares, and Consumer Electronics Merchant Wholesalers
- 423690 Other Electronic Parts and Equipment Merchant Wholesalers
- 423810 Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers
- 423820 Farm and Garden Machinery and Equipment Merchant Wholesalers
- 423830 Industrial Machinery and Equipment Merchant Wholesalers
- 423840 Industrial Supplies Merchant Wholesalers
- 423850 Service Establishment Equipment and Supplies Merchant Wholesalers
- 423860 Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers
- 423910 Sporting and Recreational Goods and Supplies Merchant Wholesalers
- 423920 Toy and Hobby Goods and Supplies Merchant Wholesalers
- 423940 Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers
- 424110 Printing and Writing Paper Merchant Wholesalers
- 424120 Stationery and Office Supplies Merchant Wholesalers
- 424130 Industrial and Personal Service Paper Merchant Wholesalers
- 424210 Drugs and Druggists’ Sundries Merchant Wholesalers
- 424310 Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers
- 424320 Men’s and Boys’ Clothing and Furnishings Merchant Wholesalers
- 424330 Women’s, Children’s, and Infants’ ‘Clothing and Accessories Merchant Wholesalers
- 424340 Footwear Merchant Wholesalers
- 424440 Poultry and Poultry Product Merchant Wholesalers
- 424460 Fish and Seafood Merchant Wholesalers
- 424470 Meat and Meat Product Merchant Wholesalers
- 424480 Fresh Fruit and Vegetable Merchant Wholesalers
- 424590 Other Farm Product Raw Material Merchant Wholesalers
- 424610 Plastics Materials and Basic Forms and Shapes Merchant Wholesalers
- 424690 Other Chemical and Allied Products Merchant Wholesalers
- 424710 Petroleum Bulk Stations and Terminals
- 424720 Petroleum and Petroleum Products Merchant Wholesalers except Bulk Stations and Terminals
- 424820 Wine and Distilled Alcoholic Beverage Merchant Wholesalers
- 424910 Farm Supplies Merchant Wholesalers
- 424920 Book, Periodical, and Newspaper Merchant Wholesalers
- 424930 Flower, Nursery Stock, and Florists’ Supplies Merchant Wholesalers
- 424940 Tobacco and Tobacco Product Merchant Wholesalers
- 424950 Paint, Varnish, and Supplies Merchant Wholesalers
- 424990 Other Miscellaneous Nondurable Goods Merchant Wholesalers
- 425110 Packaging and Labeling Services
- 425120 Wholesale Trade Agents and Brokers
- 425130 Mail-Order Houses
- 425140 General Warehousing and Storage
- 425210 Refrigerated Warehousing and Storage
- 425220 Farm Product Warehousing and Storage
- 425230 Other Warehousing and Storage
- 532411 Commercial Air, Rail, and Water Transportation Equipment Rental and Leasing
- 532412 Construction, Mining, and Forestry Machinery and Equipment Rental and Leasing
- 532420 Office Machinery and Equipment Rental and Leasing
- 532490 Other Commercial and Industrial Machinery and Equipment Rental and Leasing
- 561499 All Other Business Support Services
- 561910 Packaging and Labeling Services

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Biopharmaceuticals

- 325414 Biological Product (except Diagnostic) Manufacturing
- 325413 In-Vitro Diagnostic Substance Manufacturing
- 325412 Pharmaceutical Preparation Manufacturing
- 325411 Medicinal and Botanical Manufacturing

Distribution & Electronic Commerce

- 424690 Other Chemical and Allied Products Merchant Wholesalers
- 424610 Plastics Materials and Basic Forms and Shapes Merchant Wholesalers
- 424210 Drugs and Druggists’ Sundries Merchant Wholesalers

Industries in Downstream Chemical Products (12)

- 324191 Petroleum Lubricating Oil and Grease Manufacturing
- 325130 Synthetic Dye and Pigment Manufacturing
- 325510 Paint and Coating Manufacturing
- 325520 Adhesive Manufacturing
- 325611 Soap and Other Detergent Manufacturing
- 325612 Polish and Other Sanitation Good Manufacturing
- 325613 Surface Active Agent Manufacturing
- 325620 Toilet Preparation Manufacturing
- 325920 Explosives Manufacturing
- 325991 Custom Compounding of Purchased Resins
- 325992 Photographic Film, Paper, Plate, and Chemical Manufacturing
- 325998 All Other Miscellaneous Chemical Product and Preparation Manufacturing

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Industries in Downstream Metal Products (13)

<table>
<thead>
<tr>
<th>NAICS Industry Code</th>
<th>Industry Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>332215</td>
<td>Metal Kitchen Cookware, Utensil, Cutlery, and Flatware (except Precious) Manufacturing</td>
</tr>
<tr>
<td>332216</td>
<td>Saw Blade and Handtool Manufacturing</td>
</tr>
<tr>
<td>332311</td>
<td>Prefabricated Metal Building and Component Manufacturing</td>
</tr>
<tr>
<td>332312</td>
<td>Fabricated Structural Metal Manufacturing</td>
</tr>
<tr>
<td>332321</td>
<td>Metal Window and Door Manufacturing</td>
</tr>
<tr>
<td>332323</td>
<td>Ornamental and Architectural Metal Work Manufacturing</td>
</tr>
<tr>
<td>332431</td>
<td>Metal Can Manufacturing</td>
</tr>
<tr>
<td>332439</td>
<td>Other Metal Container Manufacturing</td>
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<tr>
<td>332510</td>
<td>Hardware Manufacturing</td>
</tr>
<tr>
<td>332992</td>
<td>Small Arms Ammunition Manufacturing</td>
</tr>
<tr>
<td>332993</td>
<td>Ammunition (except Small Arms) Manufacturing</td>
</tr>
<tr>
<td>332994</td>
<td>Small Arms, Ordnance, and Ordnance Accessories Manufacturing</td>
</tr>
<tr>
<td>332999</td>
<td>All Other Miscellaneous Fabricated Metal Product Manufacturing</td>
</tr>
</tbody>
</table>

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**Legend**

- **NAICS Industry Code**
- **NAICS Industry Name**
- **Strongly Related Industries**
- **Central Cluster**
- **Loosely Related Industries**

### Industries in Education & Knowledge Creation (15)

- 541711 Research and Development in Biotechnology
- 541712 Research and Development in the Physical, Engineering, and Life Sciences (except Biotechnology)
- 541720 Research and Development in the Social Sciences and Humanities
- 611210 Junior Colleges
- 611310 Colleges, Universities, and Professional Schools
- 611410 Business and Secretarial Schools
- 611420 Computer Training
- 611430 Professional and Management Development Training
- 611512 Flight Training
- 611513 Apprenticeship Training
- 611630 Language Schools
- 611691 Exam Preparation and Tutoring
- 611699 All Other Miscellaneous Schools and Instruction
- 611710 Educational Support Services
- 813920 Professional Organizations

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Industries in Electric Power Generation & Transmission (9)

- 221111 Hydroelectric Power Generation
- 221112 Fossil Fuel Electric Power Generation
- 221113 Nuclear Electric Power Generation
- 221114 Solar Electric Power Generation
- 221115 Wind Electric Power Generation
- 221116 Geothermal Electric Power Generation
- 221117 Biomass Electric Power Generation
- 221118 Other Electric Power Generation
- 221121 Electric Bulk Power Transmission and Control

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**Industries in Environmental Services (7)**

- 562112 Hazardous Waste Collection
- 562119 Other Waste Collection
- 562211 Hazardous Waste Treatment and Disposal
- 562213 Solid Waste Combustors and Incinerators
- 562219 Other Nonhazardous Waste Treatment and Disposal
- 562920 Materials Recovery Facilities
- 562998 All Other Miscellaneous Waste Management Services

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Industries in Fishing & Fishing Products (4)

- 114111 Finfish Fishing
- 114112 Shellfish Fishing
- 114119 Other Marine Fishing
- 311710 Seafood Product Preparation and Packaging

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**Legend**

- **Central Cluster**
- **Strongly Related Industries**
- **Loosely Related Industries**

**NAICS Industry Code**

**NAICS Industry Name**

**Industries in Footwear (2)**

316110  Leather and Hide Tanning and Finishing  
316210  Footwear Manufacturing

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Industries in Forestry (4)
113110  Timber Tract Operations
113210  Forest Nurseries and Gathering of Forest Products
113310  Logging
115310  Support Activities for Forestry

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### Industries in Furniture (11)

<table>
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<tr>
<th>NAICS Code</th>
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<tbody>
<tr>
<td>331991</td>
<td>Manufactured Home (Mobile Home) Manufacturing</td>
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<tr>
<td>337110</td>
<td>Wood Kitchen Cabinet and Countertop Manufacturing</td>
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<td>337121</td>
<td>Upholstered Household Furniture Manufacturing</td>
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<tr>
<td>337122</td>
<td>Nonupholstered Wood Household Furniture Manufacturing</td>
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<tr>
<td>337124</td>
<td>Metal Household Furniture Manufacturing</td>
</tr>
<tr>
<td>337125</td>
<td>Household Furniture (except Wood and Metal) Manufacturing</td>
</tr>
<tr>
<td>337127</td>
<td>Institutional Furniture Manufacturing</td>
</tr>
<tr>
<td>337211</td>
<td>Wood Office Furniture Manufacturing</td>
</tr>
<tr>
<td>337214</td>
<td>Office Furniture (except Wood) Manufacturing</td>
</tr>
<tr>
<td>337215</td>
<td>Showcase, Partition, Shelving, and Locker Manufacturing</td>
</tr>
<tr>
<td>337910</td>
<td>Mattress Manufacturing</td>
</tr>
</tbody>
</table>

### Notes:
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3. Industries should not be misinterpreted as sub-clusters. For a listing of all sub-clusters, please visit the Institute’s Canadian Cluster Data portal.
4. Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014.”
Industries in Hospitality & Tourism (31)

114210  Hunting and Trapping
453920  Art Dealers
487110  Scenic and Sightseeing Transportation, Land
487210  Scenic and Sightseeing Transportation, Water
487990  Scenic and Sightseeing Transportation, Other
532292  Recreational Goods Rental
561510  Travel Agencies
561520  Tour Operators
561591  Convention and Visitors Bureaus
561599  All Other Travel Arrangement and Reservation Services
711211  Sports Teams and Clubs
711212  Racetracks
711219  Other Spectator Sports
712110  Museums
712120  Historical Sites
712130  Zoos and Botanical Gardens
712190  Nature Parks and Other Similar Institutions
713110  Amusement and Theme Parks
713120  Amusement Arcades
713210  Casinos (except Casino Hotels)
713290  Other Gambling Industries
713920  Skiing Facilities
713930  Marinas
713990  All Other Amusement and Recreation Industries
721110  Hotels (except Casino Hotels) and Motels
721120  Casino Hotels
721191  Bed-and-Breakfast Inns
721199  All Other Traveler Accommodation
721211  RV (Recreational Vehicle) Parks and Campgrounds
721214  Recreational and Vacation Camps (except Campgrounds)
721310  Rooming and Boarding Houses

Notes:
(1) Cluster definitions are based on the U.S. Cluster Mapping Benchmark Definitions developed by Professors Mercedes Delgado, Michael E. Porter, and Scott Stern (2013).
(2) US 2012 North American Industry Classification System (NAICS) are used for industry classifications and codes.
(3) Industries should not be misinterpreted as sub-clusters. For a listing of all sub-clusters, please visit the Institute’s Canadian Cluster Data portal.
(4) Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014.”
In the image, there is information about cluster linkages in Canada, specifically focusing on the NAICS Industry Code and Industry Name. The text mentions "Strongly Related Industries" and "Central Cluster" categories. There is also a note indicating that the cluster definitions are based on the U.S. Cluster Mapping Benchmark Definitions developed by Professors Mercedes Delgado, Michael E. Porter, and Scott Stern (2013).

The note also states that US 2012 North American Industry Classification System (NAICS) are used for industry classifications and codes. Industries should not be misinterpreted as sub-clusters. For a listing of all sub-clusters, please visit the Institute’s Canadian Cluster Data portal.

Analysis derived from an approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: "European Cluster Panorama 2014."
**Legend**

- **Central Cluster**
- **Strongly Related Industries**
- **Loosely Related Industries**

**NAICS Industry Code**

**NAICS Industry Name**

---

**Business Services**

- 541614 Process, Physical Distribution, and Logistics Consulting Services
- 541618 Other Management Consulting Services

**Financial Services**

- 523930 Investment Advice

**Marketing, Design, & Publishing**

- 541613 Marketing Consulting Services

---

**Industries in Insurance Services (8)**

- 524113 Direct Life Insurance Carriers
- 524114 Direct Health and Medical Insurance Carriers
- 524126 Direct Property and Casualty Insurance Carriers
- 524127 Direct Title Insurance Carriers
- 524128 Other Direct Insurance (except Life, Health, and Medical) Carriers
- 524130 Reinsurance Carriers
- 524291 Claims Adjusting
- 524298 All Other Insurance Related Activities

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Notes:

2. US 2012 North American Industry Classification System (NAICS) are used for industry classifications and codes.
3. Industries should not be misinterpreted as sub-clusters. For a listing of all sub-clusters, please visit the Institute’s Canadian Cluster Data portal.
4. Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014.”
Industries in Jewelry & Precious Metals (1)

339910 Jewelry and Silverware Manufacturing

Notes:
(1) Cluster definitions are based on the U.S. Cluster Mapping Benchmark Definitions developed by Professors Mercedes Delgado, Michael E. Porter, and Scott Stern (2013).
(2) US 2012 North American Industry Classification System (NAICS) are used for industry classifications and codes.
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(4) Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014”.
**Industries in Leather & Related Products (3)**

- 314910  Textile Bag and Canvas Mills
- 316992  Women’s Handbag and Purse Manufacturing
- 316998  All Other Leather Good and Allied Product Manufacturing

Notes:
(1) Cluster definitions are based on the U.S. Cluster Mapping Benchmark Definitions developed by Professors Mercedes Delgado, Michael E. Porter, and Scott Stern (2013).
(2) US 2012 North American Industry Classification System (NAICS) are used for industry classifications and codes.
(3) Industries should not be misinterpreted as sub-clusters. For a listing of all sub-clusters, please visit the Institute’s Canadian Cluster Data portal.
(4) Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014”.
**Legend**

- **Central Cluster**
- **Strongly Related Industries**
- **Loosely Related Industries**

**NAICS Industry Code**

**NAICS Industry Name**

---

**Lighting and Electrical Equipment (15)**

<table>
<thead>
<tr>
<th>NAICS Code</th>
<th>Industry Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>335110</td>
<td>Electric Lamp Bulb and Part Manufacturing</td>
</tr>
<tr>
<td>335121</td>
<td>Residential Electric Lighting Fixture Manufacturing</td>
</tr>
<tr>
<td>335122</td>
<td>Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing</td>
</tr>
<tr>
<td>335129</td>
<td>Other Lighting Equipment Manufacturing</td>
</tr>
<tr>
<td>335311</td>
<td>Power, Distribution, and Specialty Transformer Manufacturing</td>
</tr>
<tr>
<td>335312</td>
<td>Motor and Generator Manufacturing</td>
</tr>
<tr>
<td>335313</td>
<td>Switchgear and Switchboard Apparatus Manufacturing</td>
</tr>
<tr>
<td>335314</td>
<td>Relay and Industrial Control Manufacturing</td>
</tr>
<tr>
<td>335911</td>
<td>Storage Battery Manufacturing</td>
</tr>
<tr>
<td>335921</td>
<td>Fiber Optic Cable Manufacturing</td>
</tr>
<tr>
<td>335929</td>
<td>Other Communication and Energy Wire Manufacturing</td>
</tr>
<tr>
<td>335931</td>
<td>Current-Carrying Wiring Device Manufacturing</td>
</tr>
<tr>
<td>335932</td>
<td>Noncurrent-Carrying Wiring Device Manufacturing</td>
</tr>
<tr>
<td>335991</td>
<td>Carbon and Graphite Product Manufacturing</td>
</tr>
<tr>
<td>335999</td>
<td>All Other Miscellaneous Electrical Equipment and Component Manufacturing</td>
</tr>
</tbody>
</table>

**Notes:**

2. US 2012 North American Industry Classification System (NAICS) are used for industry classifications and codes.
3. Industries should not be misinterpreted as sub-clusters. For a listing of all sub-clusters, please visit the Institute’s Canadian Cluster Data portal.
4. Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014.”
Industries in Livestock Processing (5)

- 311611 Animal (except Poultry) Slaughtering
- 311612 Meat Processed from Carcasses
- 311613 Rendering and Meat Byproduct Processing
- 311615 Poultry Processing
- 424520 Livestock Merchant Wholesalers

Notes:
(1) Cluster definitions are based on the U.S. Cluster Mapping Benchmark Definitions developed by Professors Mercedes Delgado, Michael E. Porter, and Scott Stern (2013).
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(4) Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014.”
Legend

NAICS Industry Code
NAICS Industry Name
Strongly Related Industries
Central Cluster
Loosely Related Industries

Notes:
(1) Cluster definitions are based on the U.S. Cluster Mapping Benchmark Definitions developed by Professors Mercedes Delgado, Michael E. Porter, and Scott Stern (2013).
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Industries in Medical Devices (5)

- 333314 Optical Instrument and Lens Manufacturing
- 339112 Surgical and Medical Instrument Manufacturing
- 339113 Surgical Appliance and Supplies Manufacturing
- 339114 Dental Equipment and Supplies Manufacturing
- 339115 Ophthalmic Goods Manufacturing

Notes:
2. US 2012 North American Industry Classification System (NAICS) are used for industry classifications and codes.
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4. Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014.”
Legend
NAICS Industry Code
NAICS Industry Name
Strongly Related Industries
Central Cluster
Loosely Related Industries

Notes:
(1) Cluster definitions are based on the U.S. Cluster Mapping Benchmark Definitions developed by Professors Mercedes Delgado, Michael E. Porter, and Scott Stern (2013).
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(4) Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014.”

Industries in Metal Mining (8)

<table>
<thead>
<tr>
<th>NAICS Industry Code</th>
<th>Industry Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>212210</td>
<td>Iron Ore Mining</td>
</tr>
<tr>
<td>212221</td>
<td>Gold Ore Mining</td>
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<tr>
<td>212222</td>
<td>Silver Ore Mining</td>
</tr>
<tr>
<td>212231</td>
<td>Lead Ore and Zinc Ore Mining</td>
</tr>
<tr>
<td>212234</td>
<td>Copper Ore and Nickel Ore Mining</td>
</tr>
<tr>
<td>212291</td>
<td>Uranium-Radium-Vanadium Ore Mining</td>
</tr>
<tr>
<td>212299</td>
<td>All Other Metal Ore Mining</td>
</tr>
<tr>
<td>213114</td>
<td>Support Activities for Metal Mining</td>
</tr>
<tr>
<td>213115</td>
<td>Support Activities for Nonmetallic Minerals (except Fuel) Mining</td>
</tr>
</tbody>
</table>

Coal Mining

<table>
<thead>
<tr>
<th>NAICS Industry Code</th>
<th>Industry Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>213113</td>
<td>Support Activities for Coal Mining</td>
</tr>
</tbody>
</table>

Metal Mining

Nonmetal Mining

<table>
<thead>
<tr>
<th>NAICS Industry Code</th>
<th>Industry Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>213115</td>
<td>Support Activities for Nonmetallic Minerals (except Fuel) Mining</td>
</tr>
</tbody>
</table>

Metal Mining

Legend

- Central Cluster
- Strongly Related Industries
- Loosely Related Industries
Notes:
(1) Cluster definitions are based on the U.S. Cluster Mapping Benchmark Definitions developed by Professors Mercedes Delgado, Michael E. Porter, and Scott Stern (2013).
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(4) Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014.”
### Industries in Music & Sound Recording (5)

- 512210 Record Production
- 512220 Integrated Record Production/Distribution
- 512230 Music Publishers
- 512240 Sound Recording Studios
- 512290 Other Sound Recording Industries

Notes:

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4. Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014”.

Legend

- Central Cluster
- Strongly Related Industries
- Loosely Related Industries

NAICS Industry Code
NAICS Industry Name
Industries in Nonmetal Mining (13)

- 212311 Dimension Stone Mining and Quarrying
- 212312 Crushed and Broken Limestone Mining and Quarrying
- 212313 Crushed and Broken Granite Mining and Quarrying
- 212319 Other Crushed and Broken Stone Mining and Quarrying
- 212321 Construction Sand and Gravel Mining
- 212322 Industrial Sand Mining
- 212324 Kaolin and Ball Clay Mining
- 212325 Clay and Ceramic and Refractory Minerals Mining
- 212391 Potash, Soda, and Borate Mineral Mining
- 212392 Phosphate Rock Mining
- 212393 Other Chemical and Fertilizer Mineral Mining
- 212399 All Other Nonmetallic Mineral Mining
- 213115 Support Activities for Nonmetallic Minerals (except Fuels) Mining

Notes:
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(4) Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014.”
Industries in Oil & Gas Production & Transportation (12)

211111  Crude Petroleum and Natural Gas Extraction
211112  Natural Gas Liquid Extraction
213111  Drilling Oil and Gas Wells
213112  Support Activities for Oil and Gas Operations
324110  Petroleum Refineries
324199  All Other Petroleum and Coal Products Manufacturing
333132  Oil and Gas Field Machinery and Equipment Manufacturing
486110  Pipeline Transportation of Crude Oil
486210  Pipeline Transportation of Natural Gas
486910  Pipeline Transportation of Refined Petroleum Products
486990  All Other Pipeline Transportation
541360  Geophysical Surveying and Mapping Services

Notes:
(1) Cluster definitions are based on the U.S. Cluster Mapping Benchmark Definitions developed by Professors Mercedes Delgado, Michael E. Porter, and Scott Stern (2013).
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Industries in Paper & Packaging (11)

- 322110 Pulp Mills
- 322121 Paper (except Newsprint) Mills
- 322122 Newsprint Mills
- 322130 Paperboard Mills
- 322211 Corrugated and Solid Fiber Box Manufacturing
- 322212 Folding Paperboard Box Manufacturing
- 32219 Other Paperboard Container Manufacturing
- 32220 Paper Bag and Coated and Treated Paper Manufacturing
- 322230 Stationery Product Manufacturing
- 322291 Sanitary Paper Product Manufacturing
- 322299 All Other Converted Paper Product Manufacturing

Legend

- Central Cluster
- Strongly Related Industries
- Loosely Related Industries

Notes:
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4. Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014.”
Legends

NAICS Industry Code
NAICS Industry Name
Strongly Related Industries
Central Cluster
Loosely Related Industries

Notes:
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(4) Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014”.

**Industries in Performing Arts (8)**

- 711110 Theater Companies and Dinner Theaters
- 711120 Dance Companies
- 711130 Musical Groups and Artists
- 711190 Other Performing Arts Companies
- 713110 Promoters of Performing Arts, Sports, and Similar Events with Facilities
- 713120 Promoters of Performing Arts, Sports, and Similar Events without Facilities
- 714110 Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures
- 715110 Independent Artists, Writers, and Performers

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**Legend**

- Central Cluster
- Strongly Related Industries
- Loosely Related Industries

**NAICS Industry Code**

**NAICS Industry Name**
Notes:
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(4) Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014”.

**Legend**
- Red: Central Cluster
- Orange: Strongly Related Industries
- Blue: Loosely Related Industries

<table>
<thead>
<tr>
<th>NAICS Industry Code</th>
<th>NAICS Industry Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>325211</td>
<td>Plastics Material and Resin Manufacturing</td>
</tr>
<tr>
<td>326111</td>
<td>Plastics Bag and Pouch Manufacturing</td>
</tr>
<tr>
<td>326112</td>
<td>Plastics Packaging Film and Sheet (including Laminated) Manufacturing</td>
</tr>
<tr>
<td>326113</td>
<td>Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing</td>
</tr>
<tr>
<td>326121</td>
<td>Unlaminated Plastics Profile Shape Manufacturing</td>
</tr>
<tr>
<td>326122</td>
<td>Plastics Pipe and Pipe Fitting Manufacturing</td>
</tr>
<tr>
<td>326130</td>
<td>Laminated Plastics Plate, Sheet (except Packaging), and Shape Manufacturing</td>
</tr>
<tr>
<td>326140</td>
<td>Polystyrene Foam Product Manufacturing</td>
</tr>
<tr>
<td>326150</td>
<td>Urethane and Other Foam Product (except Polystyrene) Manufacturing</td>
</tr>
<tr>
<td>326160</td>
<td>Plastics Bottle Manufacturing</td>
</tr>
<tr>
<td>326191</td>
<td>Plastics Plumbing Fixture Manufacturing</td>
</tr>
<tr>
<td>326199</td>
<td>All Other Plastics Product Manufacturing</td>
</tr>
<tr>
<td>339994</td>
<td>Broom, Brush, and Mop Manufacturing</td>
</tr>
</tbody>
</table>

**Industries in Plastics (13)**
- Downstream Chemical Products
  - 325611: Soap and Other Detergent Manufacturing
  - 325612: Polish and Other Sanitation Good Manufacturing
  - 325613: Surface Active Agent Manufacturing

**Production Technology & Heavy Machinery**
- 339991: Gasket, Packing, and Sealing Device Manufacturing

**Recreational & Small Electric Goods**
- 339992: Musical Instrument Manufacturing
- 339993: Polish and Other Sanitation Good Manufacturing
- 339999: All Other Miscellaneous Manufacturing

**Trailers, Motor Homes, & Appliances**
- 339995: Burial Casket Manufacturing

**Biopharmaceuticals**
- 325411: Medicinal and Botanical Manufacturing
- 325412: Pharmaceutical Preparation Manufacturing
- 325413: In-Vitro Diagnostic Substance Manufacturing
- 325414: Biological Product (except Diagnostic) Manufacturing
Marketing, Design, & Publishing

511120 Periodical Publishers

Printing Services

Industries in Printing Services (6)
- 323111 Commercial Printing (except Screen and Books)
- 323113 Commercial Screen Printing
- 323117 Books Printing
- 323120 Support Activities for Printing
- 325910 Printing Ink Manufacturing
- 511191 Greeting Card Publishers

Distribution & Electronic Commerce
- 425120 Wholesale Trade Agents and Brokers
- 423940 Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers
- 424110 Printing and Writing Paper Merchant Wholesalers
- 424120 Stationery and Office Supplies Merchant Wholesalers

Notes:
(1) Cluster definitions are based on the U.S. Cluster Mapping Benchmark Definitions developed by Professors Mercedes Delgado, Michael E. Porter, and Scott Stern (2013).
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Notes:
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(4) Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014.”
### Industries in Recreational & Small Electric Goods (9)

- 335210 Small Electrical Appliance Manufacturing
- 336991 Motorcycle, Bicycle, and Parts Manufacturing
- 337920 Blind and Shade Manufacturing
- 339920 Sporting and Athletic Goods Manufacturing
- 339930 Doll, Toy, and Game Manufacturing
- 339940 Office Supplies (except Paper) Manufacturing
- 339992 Musical Instrument Manufacturing
- 339993 Fastener, Button, Needle, and Pin Manufacturing
- 339999 All Other Miscellaneous Manufacturing

**Notes:**

2. US 2012 North American Industry Classification System (NAICS) are used for industry classifications and codes.
3. Industries should not be misinterpreted as sub-clusters. For a listing of all sub-clusters, please visit the Institute’s Canadian Cluster Data portal.
4. Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014.”
CLUSTER LINKAGES IN CANADA

Legend
NAICS Industry Code
NAICS Industry Name
Strongly Related Industries
Central Cluster
Loosely Related Industries

Notes:
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(4) Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014.”
Industries in Tobacco (1)

312230 Tobacco Manufacturing

Notes:
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(4) Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014.”
Industries in Trailers, Motor Homes, & Appliances (8)

335211 Household Cooking Appliance Manufacturing
335222 Household Refrigerator and Home Freezer Manufacturing
335224 Household Laundry Equipment Manufacturing
336212 Truck Trailer Manufacturing
336213 Motor Home Manufacturing
336214 Travel Trailer and Camper Manufacturing
339995 Burial Casket Manufacturing

Notes:
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Legend
NAICS Industry Code
NAICS Industry Name
Strongly Related Industries
Central Cluster
Loosely Related Industries

Notes:
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(4) Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014”.

Industries in Transportation & Logistics (17)

562219 Other Nonhazardous Waste Treatment and Disposal
562213 Solid Waste Combustors and Incinerators
562211 Hazardous Waste Treatment and Disposal

Transportation and Logistics

Environmental Services

481111 Scheduled Passenger Air Transportation
481112 Scheduled Freight Air Transportation
481211 Nonscheduled Chartered Passenger Air Transportation
481212 Nonscheduled Chartered Freight Air Transportation
481219 Other Nonscheduled Air Transportation
484121 General Freight Trucking, Long-Distance, Truckload
484230 Specialized Freight (except Used Goods) Trucking, Long-Distance
485210 Interurban and Rural Bus Transportation
485510 Charter Bus Industry
488111 Air Traffic Control
488119 Other Airport Operations
488190 Other Support Activities for Air Transportation
488210 Support Activities for Rail Transportation
488490 Other Support Activities for Road Transportation
488510 Freight Transportation Arrangement
488991 Packing and Crating
488999 All Other Support Activities for Transportation
### CLUSTER LINKAGES IN CANADA

#### Legend

- **NAICS Industry Code**
- **NAICS Industry Name**
- **Strongly Related Industries**
- **Central Cluster**
- **Loosely Related Industries**

#### Notes:

2. US 2012 North American Industry Classification System (NAICS) are used for industry classifications and codes.
3. Industries should not be misinterpreted as sub-clusters. For a listing of all sub-clusters, please visit the Institute’s Canadian Cluster Data portal.
4. Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014.”

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#### Industries in Upstream Chemical Products (9)

- 325110 Petrochemical Manufacturing
- 325120 Industrial Gas Manufacturing
- 325180 Other Basic Inorganic Chemical Manufacturing
- 325193 Ethyl Alcohol Manufacturing
- 325194 Cyclic Crude, Intermediate, and Gum and Wood Chemical Manufacturing
- 325199 All Other Basic Organic Chemical Manufacturing
- 325212 Synthetic Rubber Manufacturing
- 325312 Phosphatic Fertilizer Manufacturing
- 325320 Pesticide and Other Agricultural Chemical Manufacturing

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**Construction Products & Services**

- 324122 Asphalt Shingle and Coating Materials Manufacturing

**Distribution & Electronic Commerce**

- 424610 Plastics Materials and Basic Forms and Shapes Merchant Wholesalers
- 424690 Other Chemical and Allied Products Merchant Wholesalers
**Legend**
- **Central Cluster**
- **Strongly Related Industries**
- **Loosely Related Industries**

**NAICS Industry Code**
- **NAICS Industry Name**

**Industries in Upstream Metal Manufacturing (18)**
- 331110 Iron and Steel Mills and Ferroalloy Manufacturing
- 331210 Iron and Steel Pipe and Tube Manufacturing from Purchased Steel
- 331221 Rolled Steel Shape Manufacturing
- 331222 Steel Wire Drawing
- 331313 Alumina Refining and Primary Aluminum Production
- 331314 Secondary Smelting and Alloying of Aluminum
- 331315 Aluminum Sheet, Plate, and Foil Manufacturing
- 331318 Other Aluminum Rolling, Drawing, and Extruding
- 331410 Nonferrous Metal (except Aluminum) Smelting and Refining
- 331420 Copper Rolling, Drawing, Extruding, and Alloying
- 331491 Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding
- 331492 Secondary Smelting, Refining, and Alloying of Nonferrous Metal (except Copper and Aluminum)
- 332111 Iron and Steel Forging
- 332112 Nonferrous Forging
- 332117 Powder Metallurgy Part Manufacturing
- 332119 Metal Crown, Closure, and Other Metal Stamping (except Automotive)
- 332613 Spring Manufacturing
- 332618 Other Fabricated Wire Product Manufacturing

**Notes:**
2. US 2012 North American Industry Classification System (NAICS) are used for industry classifications and codes.
3. Industries should not be misinterpreted as sub-clusters. For a listing of all sub-clusters, please visit the Institute’s Canadian Cluster Data portal.
4. Analysis derived from approach used by Ketels and Protsiv to broaden cluster categories by adding individual narrow industries in their report: “European Cluster Panorama 2014.”
### Industries in Video Production & Distribution (5)

<table>
<thead>
<tr>
<th>Industry Code</th>
<th>Industry Name</th>
<th>Sub-Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>512110</td>
<td>Motion Picture and Video Production</td>
<td>Business Services</td>
</tr>
<tr>
<td>512120</td>
<td>Motion Picture and Video Distribution</td>
<td></td>
</tr>
<tr>
<td>512132</td>
<td>Drive-In Motion Picture Theaters</td>
<td></td>
</tr>
<tr>
<td>512191</td>
<td>Teleproduction and Other Postproduction Services</td>
<td></td>
</tr>
<tr>
<td>512199</td>
<td>Other Motion Picture and Video Industries</td>
<td></td>
</tr>
</tbody>
</table>

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### Legend

- **Central Cluster**
- **Strongly Related Industries**
- **Loosely Related Industries**

<table>
<thead>
<tr>
<th>NAICS Industry Code</th>
<th>NAICS Industry Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>541511</td>
<td>Custom Computer Programming Services</td>
</tr>
<tr>
<td>541512</td>
<td>Computer Systems Design Services</td>
</tr>
<tr>
<td>541513</td>
<td>Computer Facilities Management Services</td>
</tr>
<tr>
<td>541519</td>
<td>Other Computer Related Services</td>
</tr>
<tr>
<td>423940</td>
<td>Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers</td>
</tr>
<tr>
<td>423620</td>
<td>Household Appliances, Electric Housewares, and Consumer Electronics Merchant Wholesalers</td>
</tr>
<tr>
<td>423910</td>
<td>Sporting and Recreational Goods and Supplies Merchant Wholesalers</td>
</tr>
</tbody>
</table>
Industries in Vulcanized & Fired Materials (11)

- 326211 Tire Manufacturing (except Retreading)
- 326212 Tire Retreading
- 326220 Rubber and Plastics Hoses and Belting Manufacturing
- 326291 Rubber Product Manufacturing for Mechanical Use
- 326299 All Other Rubber Product Manufacturing
- 327110 Pottery, Ceramics, and Plumbing Fixture Manufacturing
- 327120 Clay Building Material and Refractories Manufacturing
- 327211 Flat Glass Manufacturing
- 327212 Other Pressed and Blown Glass and Glassware Manufacturing
- 327215 Glass Product Manufacturing Made of Purchased Glass
- 327992 Ground or Treated Mineral and Earth Manufacturing

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**Legend**

- **Central Cluster**
- **Strongly Related Industries**
- **Loosely Related Industries**

**NAICS Industry Code**

**NAICS Industry Name**

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**Industries in Water Transportation (12)**

- 336611 Ship Building and Repairing
- 336612 Boat Building
- 483111 Deep Sea Freight Transportation
- 483112 Deep Sea Passenger Transportation
- 483113 Coastal and Great Lakes Freight Transportation
- 483114 Coastal and Great Lakes Passenger Transportation
- 483211 Inland Water Freight Transportation
- 483212 Inland Water Passenger Transportation
- 488310 Port and Harbor Operations
- 488320 Marine Cargo Handling
- 488330 Navigational Services to Shipping
- 488390 Other Support Activities for Water Transportation

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Industries in Wood Products (13)

321113 Sawmills
321114 Wood Preservation
321211 Hardwood Veneer and Plywood Manufacturing
321212 Softwood Veneer and Plywood Manufacturing
321213 Engineered Wood Member (except Truss) Manufacturing
321214 Truss Manufacturing
321219 Reconstituted Wood Product Manufacturing
321911 Wood Window and Door Manufacturing
321912 Cut Stock, Resawing Lumber, and Planing
321918 Other Millwork (including Flooring)
321920 Wood Container and Pallet Manufacturing
321922 Prefabricated Wood Building Manufacturing
321999 All Other Miscellaneous Wood Product Manufacturing

Notes:
(1) Cluster definitions are based on the U.S. Cluster Mapping Benchmark Definitions developed by Professors Mercedes Delgado, Michael E. Porter, and Scott Stern (2013).
(2) US 2012 North American Industry Classification System (NAICS) are used for industry classifications and codes.
(3) Industries should not be misinterpreted as sub-clusters. For a listing of all sub-clusters, please visit the Institute’s Canadian Cluster Data portal.
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