

2017 European Most Admired Knowledge Enterprises MAKE Report

Rory L. Chase
Teleos

2017 European MAKE Study	2
<i>Selecting European MAKE Winners</i>	2
2017 European MAKE Results	3
<i>2017 European MAKE Nominations, Finalists and Winners</i>	3
<i>2017 European MAKE Rankings</i>	18
<i>Changes in 2017 European MAKE Rankings</i>	20
<i>2017 European MAKE Hall of Fame</i>	23
Organizations to Watch	25
Global Knowledge Maturity	26
References	27
Appendix 1: MAKE Framework	28
Appendix 2: MAKE Methodology	34
Appendix 3: 2017 European MAKE Nominees	37
Appendix 4: 2017 European MAKE Finalists	39

2017 European Most Admired Knowledge Enterprises MAKE Report

© 1998-2018 Teleos – The KNOW Network
Tel: +44 1584 878576
E-mail: teleos@mac.com
Website: <http://www.knowledgebusiness.com>

2017 European MAKE Study

Selecting MAKE Winners

The European Most Admired Knowledge Enterprises (MAKE) study is part of Teleos' MAKE research program. The European MAKE study was established in 1999 to recognize organizations (founded and headquartered in Europe) for their ability to create shareholder value (or in the case of public and non-profit organizations, to increase stakeholder value) by transforming new as well as existing enterprise knowledge into superior products/services/solutions.

The European MAKE research is based on the Delphi methodology. This research tool employs an expert panel's perceptual knowledge to identify critical issues – in the case of the European MAKE study to identify those organizations which are leaders in creating organizational intellectual capital and value through the transformation of individual/enterprise knowledge into world-class products/services/solutions. After several rounds of deliberation, a consensus is developed among the panel's experts. It is this consensus of expert opinion which provides the validity to the Delphi and European MAKE study results.

A European-based panel of *Fortune* Global 500 senior executives and leading knowledge management and intellectual capital experts selects the European MAKE Winners. In the European MAKE study, there are three rounds of consensus building. In the first round, members of the expert panel nominate enterprises founded and headquartered in Europe.

From the list of nominees, each member of the expert panel then evaluates and selects a maximum of three organizations as best practice. Those organizations selected by at least 5% of the expert panel are recognized as European MAKE Finalists. In the third and final round, the European MAKE Finalists are ranked against each of the eight knowledge performance dimensions which form the MAKE framework and are the visible drivers of wealth creation:

- creating a knowledge-driven enterprise culture
- developing knowledge leaders and workers
- innovation (R&D, creativity and new product/solution/service design and delivery)
- maximizing enterprise intellectual capital
- enterprise-wide collaboration and knowledge sharing
- creating a learning organization
- managing customer/stakeholder knowledge
- transforming corporate knowledge into shareholder/stakeholder value

The top European MAKE Finalists by total composite score are recognized as European MAKE Winners.

2017 European MAKE Results

The European Most Admired Knowledge Enterprises (MAKE) study was established in 1999 to recognize organizations founded and headquartered in the Europe. The 19th annual European MAKE study was conducted during March-May 2017. General observations include:

- The 2017 European MAKE Winners' average Return on Revenues (ROR) was 7.2% – 1.6 times that of the *Fortune* 500 ROR company median. The average Return on Assets (ROA) for the 2017 European MAKE Winners was 7.9% – over 3.3 times that of the *Fortune* 500 ROA company median.
- Airbus, Continental AG, Cuatrecasas, Gonçalves Pereira, Keolis, Schneider Electric and Virdys are recognized for the first time as European MAKE Winners.
- European-headquartered organizations continue to struggle in hiring, training and developing knowledge workers. A combination of factors – the retirement of increasing numbers of 'baby boomers' and difficulties in recruiting talented new knowledge workers from the small pool of 'Generation Y' and 'Generation Z' individuals – is forcing organizations to devote significant resources to human intellectual capital management.
- This year's European MAKE Winners are recognized for creating knowledge-driven enterprise cultures, and developing new products, services and solutions.
- European-headquartered organizations face challenges in developing knowledge leaders and workers

A total of 48 organizations received 2017 European MAKE nominations (see Appendix 3). From this list of nominees, 23 organizations were selected as 2017 European MAKE Finalists (see Appendix 4).

From the group of 2017 European MAKE Finalists, 13 organizations (by highest composite score) have been recognized as 2017 European MAKE Winners (see Table 1). The maximum composite score for an enterprise against the eight knowledge performance dimensions is 80. (The sampling error for the 2017 European MAKE study is ± 0.72 .)

2017 European MAKE Winners

2017 Rank	2016 Rank	Enterprise	Score
1.	2.	Schlumberger	70.27
2.	1.	LEGO	69.51
3.	–	Keolis	68.91
4.	6.	Inditex	67.50
5.	17.	SAP	66.49
6.	9.	Airbus	66.33
7.	11.	Accenture	65.99
8.	3.	Siemens	65.65
9.	–	Continental AG	65.00
10.	–	Schneider Electric	63.91
11.	–	Virdys	63.75
12.	21.	Uría Menéndez	62.89
13.	19.	Cuatrecasas, Gonçalves Pereira	62.56

Table 1: 2017 European MAKE Award winners ranked by composite score (80 is the maximum score).

The 2017 European MAKE Winners are (in ranking order):

Schlumberger (France/the Netherlands/USA) – Overall 2017 European MAKE Winner

Schlumberger, founded in France in 1926, is a leading global oilfield services provider. The company had 2016 annual revenues of US \$27.8 billion, employs more than 100,000 people, and operates in more than 85 countries. Schlumberger has 125 research and engineering (R&E) facilities worldwide, and in 2016 invested US \$1 billion in R&E. The company is a leading provider of technology for reservoir characterization, drilling, production, and processing to the oil and gas industry.

Schlumberger is cited in this year’s European MAKE study for creating a knowledge-driven enterprise culture (first place). Schlumberger is a 12-time European MAKE Winner, including three-time Overall European MAKE Winner (2013, 2014, 2017).

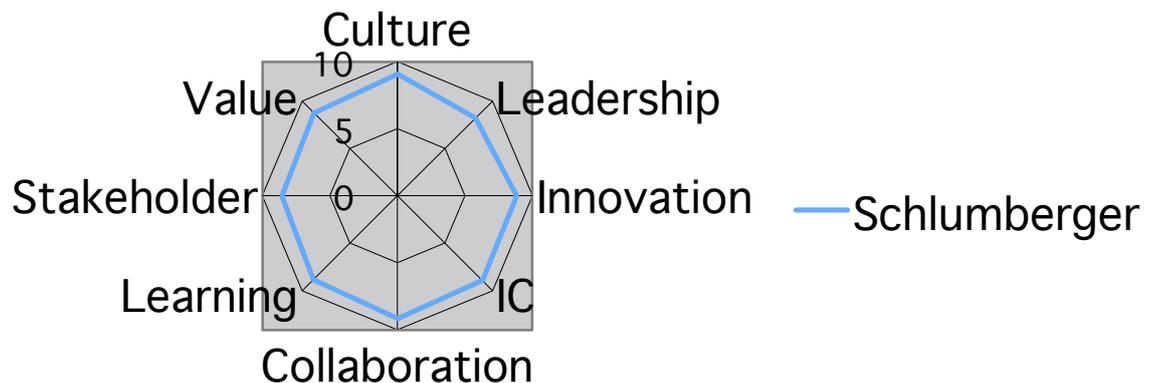


Figure 1: Schlumberger’s performance against the MAKE Framework’s eight knowledge dimensions – rated on a scale of 0 (poor) to 10 (excellent) for each knowledge dimension. (Note: In the ‘perfect’ knowledge-driven organization the blue MAKE line would be exactly superimposed on the outer ‘10’ line of the radar chart. The gap between the organization’s current performance (blue line) and the outer black line is therefore improvement opportunities.)

LEGO (Denmark)

LEGO, founded in 1932, is a privately-owned manufacturer of plastic construction toys and related products and services, including LEGO board games, LEGO retail stores, LEGO video games, Legoland theme parks, and the LEGO Serious Play consultant services. The LEGO Group has annual sales of US \$4.5 billion (2016) and has 19,000 full-time employees.

LEGO is cited in this year's European MAKE study for creating value using customer/stakeholder knowledge (first place), and transforming enterprise knowledge into shareholder/stakeholder value (first place). It is the second time that LEGO has been recognized as a European MAKE Winner.

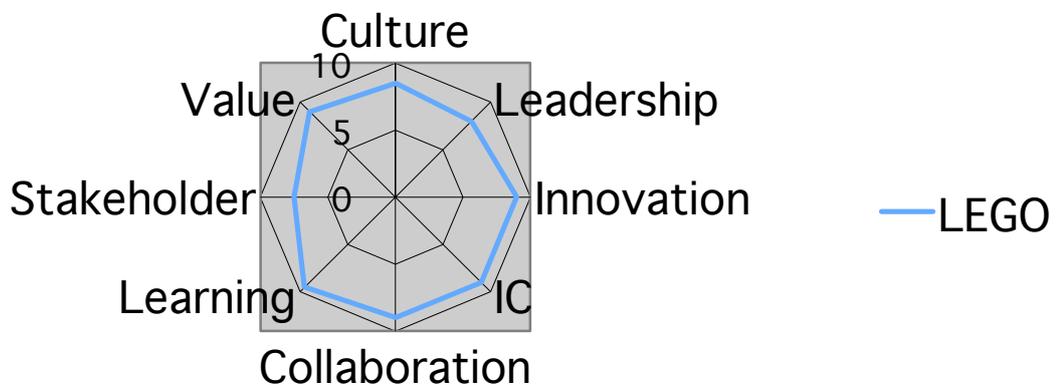


Figure 2: LEGO's performance against the MAKE Framework's eight knowledge dimensions – rated on a scale of 0 (poor) to 10 (excellent) for each knowledge dimension.

Keolis (France)

Keolis is one of the world’s leading public transport operators. The company is majority-owned (70%) by the French state railway SNCF; the other shareholder is Caisse de dépôt et placement du Québec (CDPQ). Operating in 16 countries and employing over 58,000 people, Keolis develops tailored mobility solutions (automatic metros, tramways, trains, buses, coaches, ferries, self-service bicycles) adapted to local environments. The Keolis Group offers solutions and services via its subsidiary, Kisio. It is also the second leading car park operator in France thanks to its subsidiary EFFIA. In 2016, Keolis transported 3 billion passengers and generated US \$6 billion in revenue.

The 2017 European MAKE panel has recognized Keolis for enterprise-wide collaboration and knowledge sharing (first place). This is the first time that Keolis has been recognized as a European MAKE Winner.

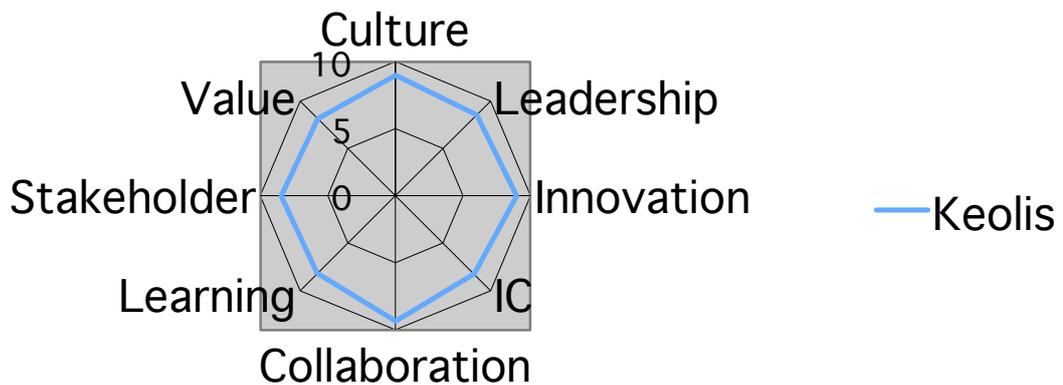


Figure 3: Keolis' performance against the MAKE Framework's eight knowledge dimensions – rated on a scale of 0 (poor) to 10 (excellent) for each knowledge dimension.

Inditex (Spain)

Industria de Diseño Textil (Inditex), founded in 1975, makes fashionable clothing sold through its Zara chain of retail stores. The Spanish designer-cum-retailer uses technology and an army of designers to produce trendy ready-to-wear fashions. Inditex has over 7,200 shops in 93 markets worldwide under eight different banners: Zara, Oysho, Massimo Dutti, Pull and Bear, Bershka, Stradivarius, Zara Home and Uterqüe. The company operates e-commerce sites in more than 40 markets. Inditex has annual sales of US \$27.4 billion (2016) and employs over 150,000 people.

Inditex is cited in this year's European MAKE study for transforming enterprise knowledge into shareholder/stakeholder value. This is the fifth time that Inditex has been recognized as a European MAKE Winner.

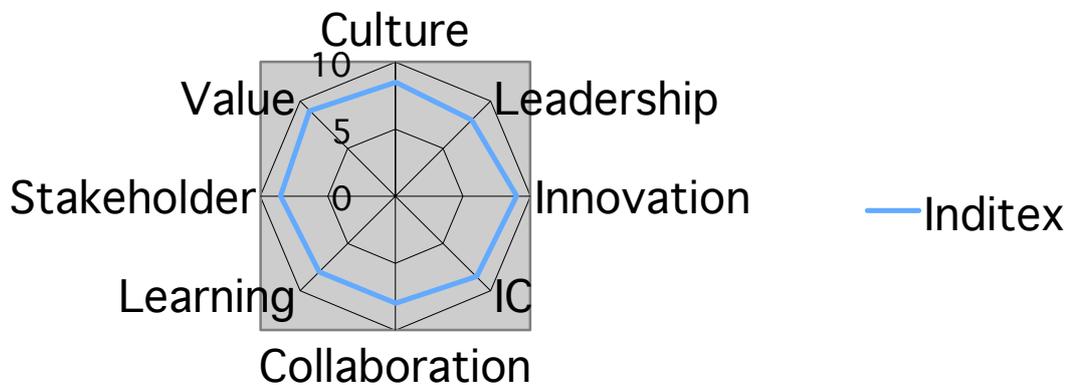


Figure 4: Inditex's performance against the MAKE Framework's eight knowledge dimensions – rated on a scale of 0 (poor) to 10 (excellent) for each knowledge dimension.

SAP (Germany)

SAP, founded in 1972, produces enterprise software to manage business operations and customer relations, including enterprise resource planning and business warehousing software. The company has annual sales of US \$25.9 billion (2016), and employs 85,000 people.

The 2017 European MAKE panel has recognized SAP for creating a knowledge-driven enterprise culture, and for organizational learning. This is the 10th time that SAP has been recognized as a European MAKE Winner, including two-time Overall European MAKE Winner (2005, 2008).

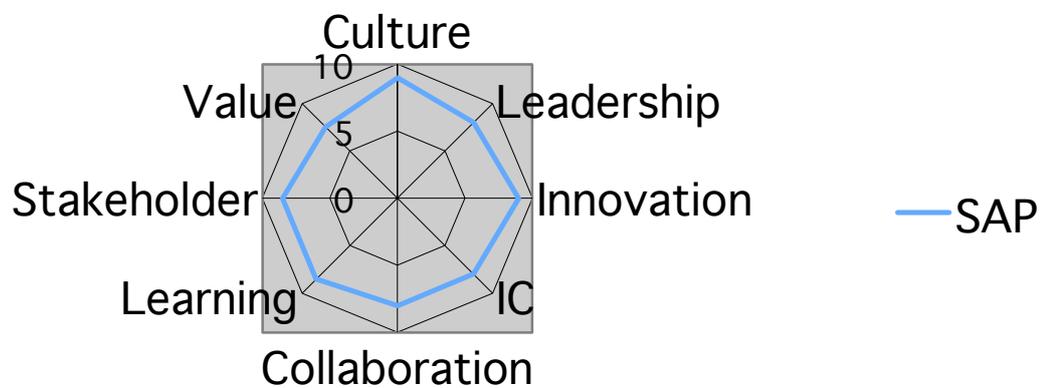


Figure 5: SAP's performance against the MAKE Framework's eight knowledge dimensions – rated on a scale of 0 (poor) to 10 (excellent) for each knowledge dimension.

Airbus (France)

Airbus is an European multinational corporation that designs, manufactures, and sells civil and military aeronautical equipment and services worldwide. In addition to its primary civil airplane business, the company has two divisions for other products and services: Defense and Space, and Helicopters. The company had fiscal year 2016 sales of US \$78.3 billion and employees over 130,000 people.

Airbus is cited in this year's European MAKE study for creating a learning organization, and transforming enterprise knowledge into shareholder/stakeholder value. This is the first time that Airbus has been recognized as a European MAKE Winner.

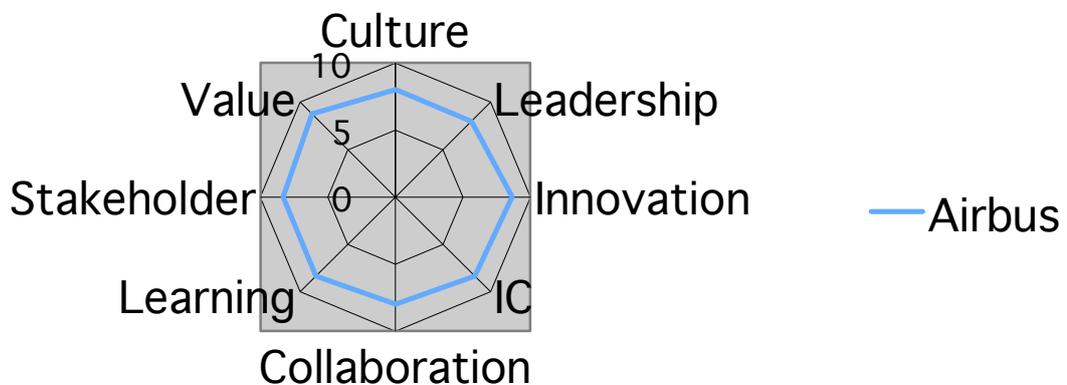


Figure 6: Airbus' performance against the MAKE Framework's eight knowledge dimensions – rated on a scale of 0 (poor) to 10 (excellent) for each knowledge dimension.

Accenture (Ireland)

Established in 1989, Accenture is a US \$34.9 billion (fiscal year ending August 31, 2017) global professional services company providing a broad range of services and solutions in strategy, consulting, digital, technology and operations. The firm employs over 425,000 people serving clients in more than 200 cities in 55 countries.

The 2017 European MAKE panel has recognized Accenture for creating value using customer/stakeholder knowledge (first place). This is the sixth time that Accenture has been recognized as a European MAKE Winner.

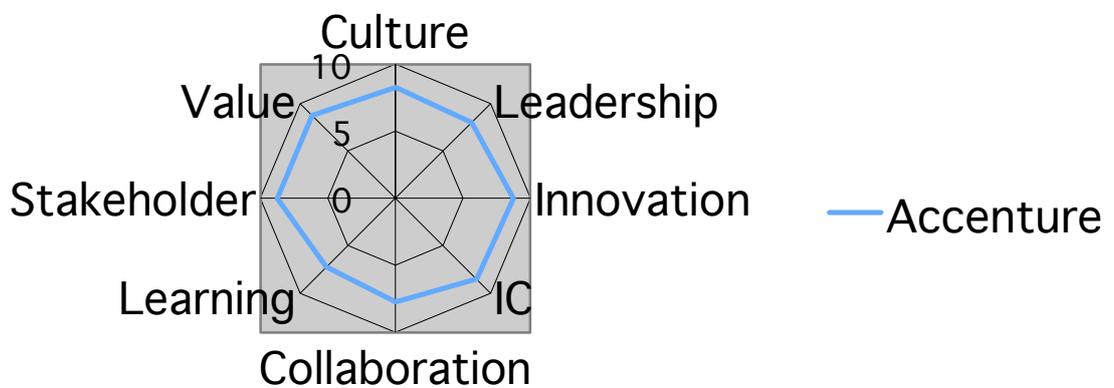


Figure 7: Accenture's performance against the MAKE Framework's eight knowledge dimensions – rated on a scale of 0 (poor) to 10 (excellent) for each knowledge dimension.

Siemens (Germany)

With over 350,000 employees, Siemens is a global leader in equipment manufacturing in the industrial, energy, healthcare, and infrastructure and cities sectors. Since 1847, Siemens has stood for technological excellence, innovation, quality, reliability and internationality. The company is the world’s largest provider of environmental technologies. In fiscal year 2016 (ending on September 30, 2016), Siemens reported global sales of US \$93.6 billion.

The 2017 European MAKE panel has recognized Siemens for innovation and new product development. Siemens is a 15-time European MAKE Winner, including six-times Overall European MAKE Winner (2003, 2004, 2010-2012, 2015).

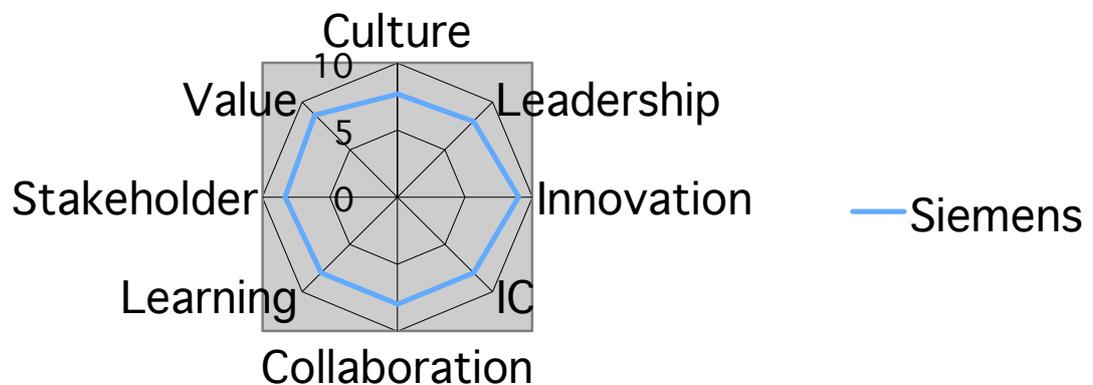


Figure 8: Siemens’ performance against the MAKE Framework’s eight knowledge dimensions – rated on a scale of 0 (poor) to 10 (excellent) for each knowledge dimension.

Continental AG (Germany)

Continental, founded in 1871, is a leading German automotive manufacturing company specializing in tires, brake systems, interior electronics, automotive safety, powertrain and chassis components, and other parts for the automotive and transportation industries. The company employs more than 220,000 people and has annual sales of US \$51 billion.

The 2017 European MAKE panel has recognized Continental AG for developing knowledge workers through senior management leadership. This is the first time that Continental AG has been recognized as a European MAKE Winner.

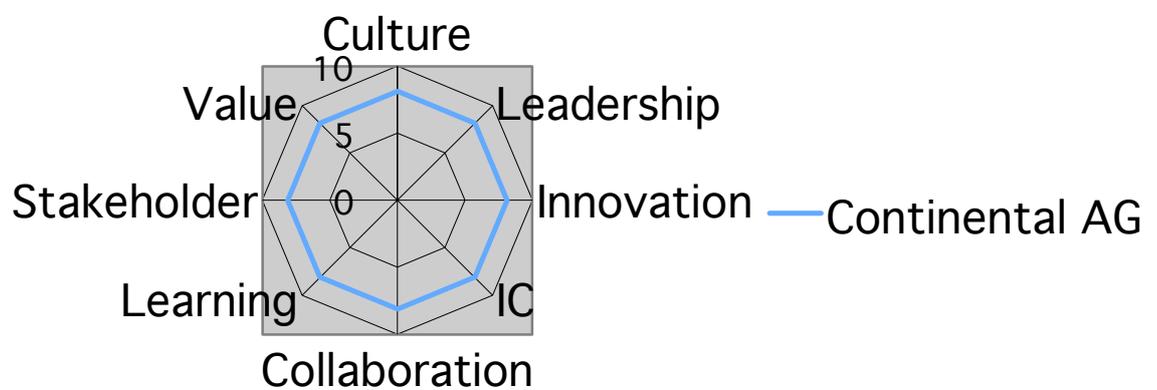


Figure 9: Continental AG's performance against the MAKE Framework's eight knowledge dimensions – rated on a scale of 0 (poor) to 10 (excellent) for each knowledge dimension.

Schneider Electric (France)

Schneider Electric, established in 1836, is a multinational corporation which specializes in energy management and automation solutions, spanning hardware, software and services. The company has 144,000 employees, 20,000 active patents or in application, and has annual sales of US \$29 billion.

Schneider Electric is cited in this year's European MAKE study for enterprise-wide collaboration and knowledge sharing. It is the first time that Schneider Electric has been recognized as a European MAKE Winner.

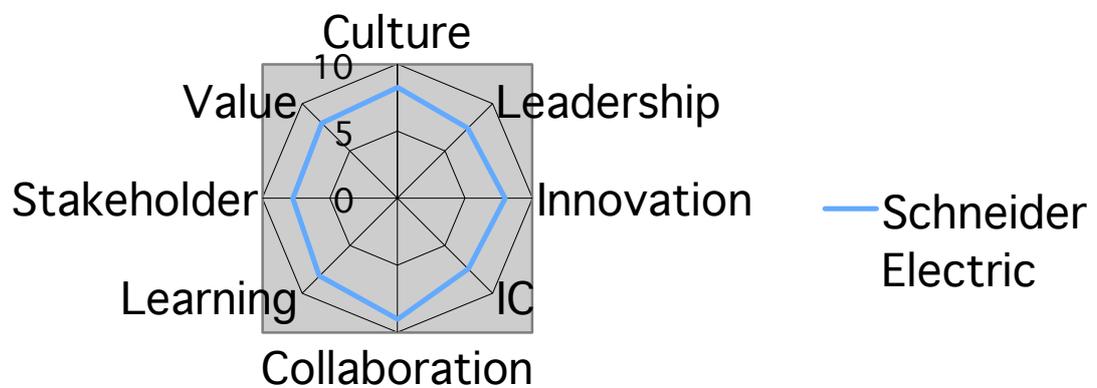


Figure 10: Schneider Electric's performance against the MAKE Framework's eight knowledge dimensions – rated on a scale of 0 (poor) to 10 (excellent) for each knowledge dimension.

Viridys (France)

Viridys, founded in 2012, is a privately-held, cutting-edge software company creating interactive 3D visualization and simulation for professionals in communication, business, marketing and training. The firm's innovative software architecture allows for modularity, scalability and ease-of-use. Viridys employs 50 people and has annual sales of US \$5-10 million.

Viridys is cited in this year's European MAKE study for creating value using customer/stakeholder. This is the first time that Viridys has been recognized as a European MAKE Winner.

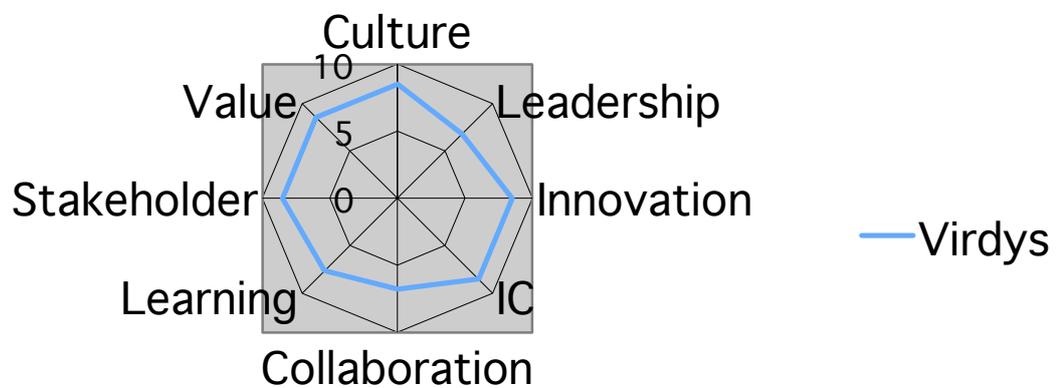


Figure 11: Viridys' performance against the MAKE Framework's eight knowledge dimensions – rated on a scale of 0 (poor) to 10 (excellent) for each knowledge dimension.

Uría Menéndez (Spain)

Uría Menéndez was established in 1940 and now has 17 offices in Europe, the Americas and Asia. The firm employs over 500 lawyers and operates mainly in the Iberian Peninsula and Latin America, where it advises on Spanish, Portuguese and European Union law. The firm has always been very close to the academic world, in particular to universities, and frequently provides assistance in humanitarian projects. It is noted for its innovative legal practices.

The 2017 European MAKE panel has recognized Uría Menéndez for enterprise-wide collaboration and knowledge sharing. This is the fourth time that Uría Menéndez has been recognized as a European MAKE Winner.

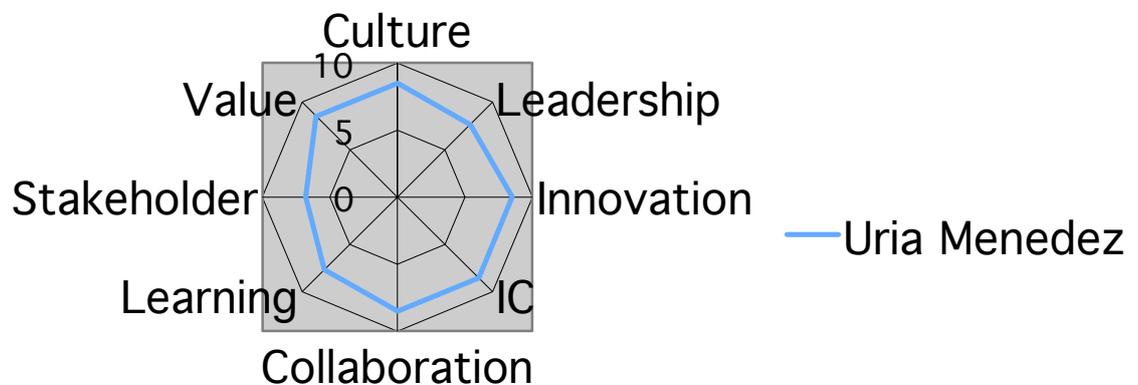


Figure 12: Uria Menendez's performance against the MAKE Framework's eight knowledge dimensions – rated on a scale of 0 (poor) to 10 (excellent) for each knowledge dimension.

Cuatrecasas, Gonçalves Pereira (Spain)

Founded in 1917, Cuatrecasas, Gonçalves Pereira has headquarters in Barcelona, Madrid and Lisbon. It has 11 offices in the Iberian Peninsula, and 10 offices in the main financial centers of Europe, America, Africa and Asia. The firm’s 900 lawyers advise on all areas of business law, organized by business and industry-specific practice.

Cuatrecasas, Gonçalves Pereira is cited in this year’s European MAKE study for developing knowledge workers through senior management leadership (first place). This is the first time that Cuatrecasas, Gonçalves Pereira has been recognized as an European MAKE Winner.

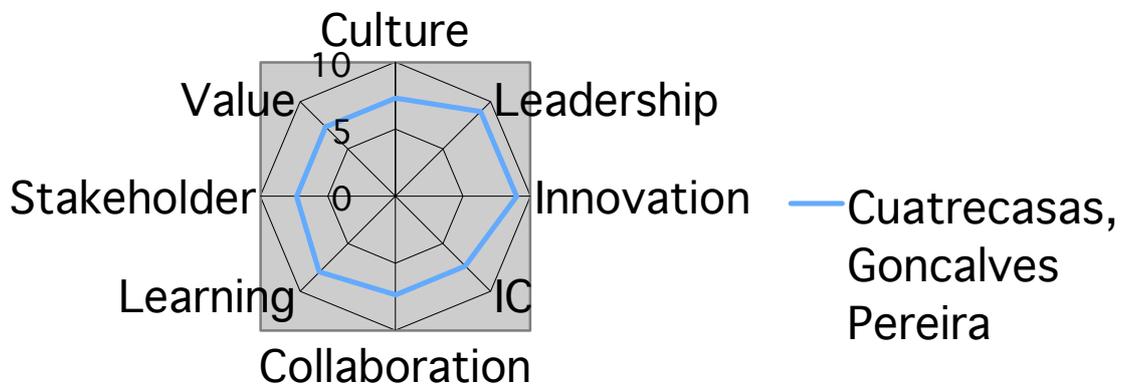


Figure 13: Cuatrecasas, Gonçalves Pereira’s performance against the MAKE Framework’s eight knowledge dimensions – rated on a scale of 0 (poor) to 10 (excellent) for each knowledge dimension.

Table 2 identifies the enterprises which received the largest number of 2017 European MAKE nominations from the panel of European-based *Fortune* Global 500 senior executives and chief knowledge officers and knowledge management / intellectual capital / innovation / organizational learning practitioners.

Enterprises Receiving the Most 2017 European MAKE Nominations

***Fortune* Global 500
Executives**

Accenture
Airbus
Inditex
LEGO
Siemens

**CKOs and Leading
KM/IC Experts**

Keolis
Schlumberger
Schneider Electric
Uria Menendez
Virdys

Table 2: Enterprises receiving the largest number of 2017 European MAKE nominations (in alphabetical order).

European MAKE Rankings

Over the past 19 years, only 55 organizations have been recognized as European MAKE Winners. Table 3 shows the European MAKE Finalists and Winners for the study years 2013-2017.

2013-2017 European MAKE Rankings

Enterprise	2017	2016	2015	2014	2013
Accenture	7	11	9	3	3
Airbus	6	9			
Arup		10	7	9	10
Atos		12	11	12	
Atos IT Solutions GmbH	22	8			
Baltika Breweries			13		
BASF	23	7			

Beiersdorf				11	
BG Group					16
BMW	13	4			
Bosch		17			
BP					15
British Broadcasting Corp.					
Capgemini			21	14	11
Check Point Software	17				
Clifford Chance					
Continental AG	9				
Cuatrecasas	13	19			18
Dubai Electricity & Water	18				
Dyson			8	7	
Endesa					
Festo	15	4			
Fira Group	21				
Garrigues	14	18	14		
Heineken					13
Inditex	4	6	12	13	4
Keolis	3				
KLM		20			
LEGO	2	1			
Lukoil	20		19		
Novartis	16		18		5
Novo Nordisk		15	6	2	
Oxfam					7
Plan Zheroes			20		
Rovio Entertainment				6	
Royal Dutch Shell		5	2	10	12
Royal Dutch Philips		14	5	4	17
Russian Railways – Corp. Univ.			15		
SAP	5	17	10	5	8
Schlumberger	1	2	3	1	1
Schneider Electric	10				
Siemens	8	3	1	6	2
Sonova Group					9
Syngenta			16	8	14
Telefónica	19				
Tetra Pak		16		15	
Uría Menéndez	12	21			
Virdys	11				

Table 3: 2013-2017 European MAKE rankings (bold indicates Winners). 2017 European MAKE Hall of Fame members' names shown in bold.

Changes in European MAKE Rankings

Schlumberger has been named the Overall European MAKE Winner for the third time (2013, 2014, 2017). Past Overall European MAKE Winners include: BMW (2006), BP (2001), LEGO (2016), Nokia (1999, 2009), Norsk Tipping (2007), SAP (2005, 2008), Siemens (2003, 2004, 2010-2012, 2015) and UBS (2006).

Airbus; Cuatrecasas, Gonçalves Pereira; Keolis; Schneider Electric and Virdys are recognized for the first time as European MAKE Winners. Atos IT Solutions and Services GmbH, BASF, Festo and Royal Dutch Shell did not repeat as European MAKE Winners.

It should be noted that very few of the 2017 European MAKE Finalists exhibited an absolute decline in their knowledge-driven organizational capabilities. Rather, the European MAKE researchers report that a number of organizations are rapidly expanding their knowledge capabilities. *When comparing the 2017 European MAKE rankings with those of previous years, it is very important to focus on trends in the rate of change, rather than absolute change.* This fact will be highlighted throughout the *2017 European MAKE Report*.

The European MAKE expert panel notes that there has been some improvement in creating knowledge-driven enterprise cultures, and developing new products, services and solutions, however, European organizations face challenges in developing knowledge leaders and knowledge workers.

Table 4 shows the changes in rankings for a selected group of European MAKE Winners and Finalists. The European MAKE research is based on experts' perceptions and there is a factor of uncertainty which must be included. Based on the results of recent annual surveys, the European MAKE researchers have assigned the following perceptual values to interpreting changes in the Asian MAKE rankings:

- a change of 1-5 ranking positions = no change in perceptions.
- a change of 6-10 ranking positions = a slight change in perceptions.
- a change of 11-15 ranking positions = a moderate change in perceptions.
- a change of 16 or more ranking positions = a significant change in perceptions.

Organizations such as the Accenture, Schlumberger and Siemens have shown very little change in their European MAKE rankings over the past several years, reflecting the ability of these firms to use enterprise knowledge to out-perform their peers in intellectual capital creation and increased stakeholder value.

Former European MAKE Winners, including Royal Dutch Shell and Royal Philips Electronics, have shown a downward trend in their rankings. These organizations have allowed their enterprise knowledge strategies to become unfocused, making it more difficult to effectively transform corporate knowledge into increased stakeholder value.

A number of other former European MAKE Winners, including Arup and Syngenta, did not

receive the minimum number of nominations to become Finalists, suggesting that they, too, may have to review their knowledge strategies and approaches.

Steady upward improvements in European MAKE rankings indicate those organizations which are successfully implementing (or re-starting) far-reaching knowledge-driven business strategies. Inditex forms part of this group.

Changes in European MAKE Rankings

Enterprise	2017	2016	2015	2014	2013
Accenture	4	(2)	(6)	0	0
Arup	–	(3)	2	1	–
Inditex	2	6	1	(9)	11
Novartis	2	(4)	(8)	(5)	3
Royal Dutch Shell	–	(3)	8	2	(6)
Royal Philips Electronics	–	(9)	(1)	13	(10)
SAP	12	(7)	(5)	3	7
Schlumberger	1	1	(2)	0	3
Siemens	(5)	(2)	5	(4)	(1)
Syngenta	–	(6)	(8)	6	(12)

Table 4: Changes in rankings for selected European MAKE Finalists and Winners (numbers in parentheses indicate a decline).

Position Rankings

Table 5 shows the 2017 European MAKE Finalists and Winners position rankings (1-23) in each of the MAKE Framework’s eight knowledge performance dimensions. The European MAKE study is based on the panel of experts’ perceptions and there is a factor of uncertainty which must be included. Based on the results of recent annual survey, the European MAKE researchers report that there is an uncertainty of ± 3 places in these position rankings. For example, Continental AG is ranked in 12th place in maximizing enterprise intellectual capital (MAKE knowledge performance dimension No. 4). However, when uncertainty is factored in, the company’s ranking ranges between 9th to 15th place.

Position rankings provide valuable insights into an organization’s knowledge capabilities as follows:

- position rankings can be used to benchmark organizations which are leaders in a specific knowledge performance dimension, for example, LEGO for innovation, or Schlumberger for creating a knowledge-driven enterprise culture
- position rankings also can be used to determine an organization's *strengths* and *weaknesses*. If an organization's ranking in an individual knowledge performance dimension is significantly higher than its overall European MAKE ranking (taking into account the range of uncertainty), then it is an organizational *strength*. For example, Cuatrecasas, Gonçalves Pereira (13th position overall) ranks in 1st place in developing knowledge leaders and workers – a *strength*. However, if an organization's ranking in an individual knowledge performance dimension is *lower* than its overall European MAKE ranking, then it can be viewed as an organizational *weakness*. For example, LEGO (overall position in 2nd place) ranks in 16th position for transforming customer knowledge into shareholder/stakeholder value.

2017 European MAKE Finalists Position Rankings

Enterprise	1	2	3	4	5	6	7	8
1. Schlumberger	1	4	7	2	2	2	2	4
2. LEGO	4	6	1	1	3	1	16	1
3. Keolis	2	2	2	11	1	5	6	9
4. Inditex	5	7	3	3	10	8	3	2
5. SAP	3	8	4	13	11	3	4	17
6. Airbus	16	9	9	10	12	4	10	5
7. Accenture	14	10	8	4	14	20	1	3
8. Siemens	17	11	5	14	13	9	11	6
9. Continental AG	15	5	13	12	9	7	12	8
10. Schneider Electric	13	17	14	18	4	5	13	10
11. Virdys	5	20	10	5	22	12	5	7
12. Uría Menéndez	7	12	11	6	5	13	19	21
13. Cuatrecasas, Gonçalves Pereira	21	1	6	19	19	10	17	18
14. Garrigues	8	13	12	7	6	14	20	22
15. Festo	9	14	16	16	7	22	7	11
16. Novartis	10	3	23	8	15	23	8	12
17. Check Point Software Technologies	18	15	17	17	16	15	14	13
18. Dubai Electricity & Water	11	21	18	9	8	16	9	23
19. Telefónica	19	23	19	23	17	17	15	14
20. Lukoil	20	22	20	21	18	18	21	15
21. Fira Group	12	16	21	22	23	19	23	16
22. Atos IT Solutions	22	19	15	20	21	21	18	20
23. BASF	23	18	22	15	20	11	22	19

Note: Knowledge performance dimensions numbers across the top of chart refer to:

1. creating an enterprise knowledge-driven culture.

2. developing knowledge workers through senior management leadership.
3. developing and delivering knowledge-based products/services/solutions.
4. maximizing enterprise intellectual capital.
5. creating an environment for collaborative enterprise knowledge sharing.
6. creating a learning organization.
7. delivering value based on stakeholder knowledge.
8. transforming enterprise knowledge into shareholder/stakeholder value.

Table 5: 2017 European MAKE Finalists and Winners position rankings in the eight MAKE knowledge performance dimensions.

European MAKE Hall of Fame

European MAKE Finalists

This year's 23 European MAKE Finals are concentrated in 16 categories:

- Computer Hardware, Software & IT Solutions – 5 (21.3%)
- Legal – 3 (12.9%)
- Oil & Gas Exploration and Services – 2 (8.6%)
- Aerospace & Defense – 1 (4.4%)
- Automotive Manufacturing – 1 (4.4%)
- Chemicals – 1 (4.4%)
- Construction and Engineering – 1 (4.4%)
- Consumer Products – 1 (4.4%)
- Diversified – 1 (4.4%)
- Electrics & Electrical Engineering – 1 (4.4%)
- Industrial Equipment – 1 (4.4%)
- Pharmaceuticals – 1 (4.4%)
- Retail – 1 (4.4%)
- Telecommunications – 1 (4.4%)
- Transportation – 1 (4.4%)
- Utilities – 1 (4.4%)

Over one-fifth of the 2017 European MAKE Finalists (21.3%) come from the highly competitive

computer hardware/software sector. Clearly there are different ‘drivers’ between the Global and regional MAKE studies.

European MAKE Hall of Fame

An even more select group of organizations form the 2017 European MAKE Hall of Fame. These five organizations have been European MAKE Finalists in each of the past five annual studies:

- Accenture
- Inditex
- SAP
- Schlumberger
- Siemens

It is a tribute to these European MAKE Hall of Fame organizations that they have ‘stayed the knowledge course’ over the past five years. Many previous European MAKE Finalists and Winners have not been able to maintain a long-term, holistic knowledge-driven strategy and focus, losing both momentum and competitive advantage.

When faced with global economic uncertainties and/or competition from within their own business sectors, the European MAKE Hall of Fame organizations have successfully used their ‘knowledge advantage’ to maintain leading positions in value creation.

Organizations to Watch

Every year a number of organizations appear on the European MAKE expert panel's 'radar screen.' Although they have not yet entered the ranks of European MAKE Winners, these knowledge-driven organizations demonstrate outstanding innovative capabilities, collaboration, organizational learning and intellectual capital management. They are organizations to 'Watch.'

- ARM Holdings (Softbank) (United Kingdom) Semiconductors
- Area (France) Utilities
- Bouygues (France) Diversified
- Cool blue (the Netherlands) e-Commerce
- Danone (France) Food
- Gas Natural Fenosa (Spain) Energy
- Hilti (Liechtenstein) Industrial equipment
- Iberdrola (Spain) Utilities
- Irizarry (Spain) Motor vehicle manufacturing
- LafargeHolcim (Switzerland) Building materials
- Linklaters LLP (United Kingdom) Legal
- Mercadona (Spain) Food retailing
- Ponsel (Finland) Industrial equipment
- Porsche (Germany) Motor vehicle manufacturing
- Robert Bosch (Germany) Motor vehicle parts
- Santander (Spain) Financial services
- Spotify (Sweden) Entertainment
- STMicroelectronics (Switzerland) Semiconductors
- Virgin Group (United Kingdom) Diversified

Global Knowledge Maturity

During the past decade, regional MAKE Winners have invested considerable resources to improving their collaborative and innovation capabilities. Now they are turning their attentions to managing enterprise intellectual capital – especially human capital. They also are focusing on social networking tools and techniques to expand and improve inter- and intra-collaborative enterprise knowledge sharing and to gain greater insights into customers’ experiences and expectations.

Many rapidly developing countries, including Brazil, China, India and Indonesia, are continuing to switch their focus from traditional quality control and low-cost manufacturing to more intensive knowledge-driven business strategies. The number of MAKE Finalists from emerging markets is forecast to increase substantially over the next few years.

The uncertain global economic and political environment continues to force consolidation in key business sectors, including airlines, computers, construction, consulting, defense, energy, entertainment, information technology, Internet, logistics, mineral resources, pharmaceuticals and social media. In many of these sectors, large-scale consolidation has resulted in a handful of global and regional companies dominating each business sector. Those companies with strong knowledge-driven approaches are most likely to survive and prosper.

Social networking firms represent a new type of global organization. These user-driven organizations are a reflection of the emerging 21st century knowledge economy where individuals are actively participating in global communities to create, deliver and use knowledge products and services. MAKE researchers expect more social network-type organizations to appear in future MAKE Winners’ lists.

In the global knowledge ‘race’ organizations cannot afford to rest on their laurels. The key driver is the *rate* at which organizations can transform knowledge into intellectual capital and knowledge-based products/services/solutions. In the global economy, just keeping up with competitors is no longer an option.

References

- [1] “The World’s Biggest Public Companies (Global 2000 Leading Companies),” *Forbes*, May 24, 2017.
<http://www.forbes.com/global2000/list/>
- [2] “The Fortune Global 500,” *Fortune*, July 20, 2017.
<http://fortune.com/global500/>
- [3] “The Fortune 500,” *Fortune*, June 7, 2017.
<http://fortune.com/fortune500/>

Appendix 1: MAKE Framework

After reviewing various knowledge management approaches and models, Teleos developed a framework of eight knowledge performance dimensions which are the visible drivers of the knowledge-driven enterprise:

- creating an enterprise knowledge-driven culture.
- developing knowledge workers through senior management leadership.
- developing and delivering knowledge-based products/services/solutions.
- maximizing enterprise intellectual capital.
- creating an environment for collaborative knowledge sharing.
- creating a learning organization.
- delivering value based on stakeholder knowledge.
- transforming enterprise knowledge into shareholder/stakeholder value.

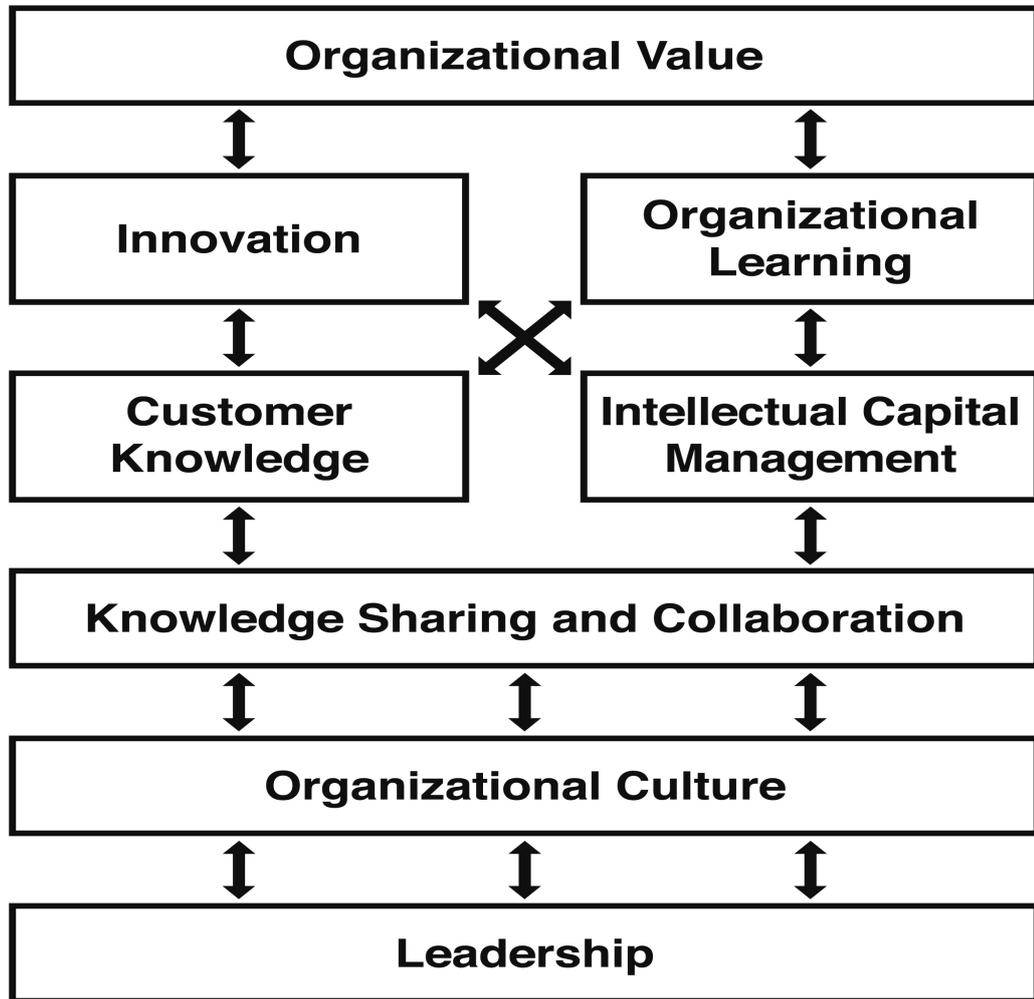
Each of these eight knowledge performance dimensions is made up of dozens of knowledge processes and sub-processes. Taken together, they serve as the ‘engine’ of the knowledge-driven enterprise (see figure below).

The eight knowledge performance dimensions which form the MAKE framework are found in all world-class enterprises. They are seen as key drivers in creating value in knowledge-intensive organizations. Listed below are the major processes which form the foundation of the eight knowledge performance dimensions.

Creating an enterprise knowledge-driven culture

The key drivers of this knowledge performance dimension include:

- Developing and deploying a knowledge-driven enterprise vision and strategy.
- Determining enterprise core competencies (knowledge assets).
- Designing a knowledge-driven enterprise structure and relationships between enterprise units.
- Developing and managing enterprise knowledge values.
- Developing and managing enterprise knowledge behaviors.
- Developing and managing enterprise knowledge systems/processes.
- Creating and managing a knowledge-based human resources strategy.



Most Admired Knowledge Enterprises (MAKE) Framework ©Teleos

Developing knowledge workers through senior management leadership

The key drivers of this knowledge performance dimension include:

- Developing and deploying an enterprise management style that encourages the acquisition, sharing and application of knowledge for enterprise value creation.
- Providing financial and non-financial enterprise support for managing knowledge.

- Encouraging and supporting an enterprise knowledge strategy and approach.
- Developing and training knowledge leaders.
- Establishing good corporate governance through an enterprise knowledge strategy.
- Recognizing/rewarding knowledge leaders.

Perhaps the key knowledge performance attribute in this knowledge performance dimension is the chief executive officer's support. This support involves articulating a clear vision for the organization, including how it is going to become and then grow as a knowledge-driven enterprise.

Developing and delivering knowledge-based products/services/solutions

The key drivers of this knowledge performance dimension include:

- Developing and deploying an enterprise knowledge creation and innovation strategy.
- Developing and training the workforce in idea generation and innovation.
- Involving customers/stakeholders and suppliers in the development of knowledge-based goods and services.
- Increasing/expanding enterprise knowledge.
- Managing the transfer of knowledge and ideas to 'points of action.'
- Recognizing/rewarding innovators.
- Managing the production and/or service of knowledge-based goods and services.
- Measuring value created from knowledge creation and innovation.

Visionary companies create an environment of 'discomfort' to stimulate change and improvement – before their customers/clients demand it of them. Best practice innovative organizations display the following characteristics:

- Employees are allowed free time to be creative.
- Functional barriers are removed and 'silo' mentalities discouraged.
- Employees are allowed to take risks and make mistakes.
- Organizations create reward systems which encourage innovation.

- Networks and communities of practice are encouraged.
- Customers are integrated into the creative process – problems are looked at from the customers' perspective.
- The innovation process is under continuous review and improvement.

Maximizing enterprise intellectual capital

The key drivers of this knowledge performance dimension include:

- Developing and deploying an enterprise intellectual capital strategy.
- Developing and training the enterprise workforce in intellectual capital concepts and tools.
- Developing tools and techniques to manage and measure intellectual capital.
- Managing and expanding human, customer/stakeholder and structural intellectual capital.
- Protecting knowledge assets.
- Recognizing/rewarding employees for increasing enterprise intellectual capital.

Creating an environment for collaborative knowledge sharing

The key drivers of this knowledge performance dimension include:

- Developing and managing the capture, categorization and use of knowledge.
- Mapping knowledge resources throughout the organization.
- Converting individual tacit into enterprise explicit knowledge.
- Creating systematic mechanisms for sharing existing internal and external knowledge and best practices.
- Using collaborative tools for knowledge sharing (including wikis and social networking).
- Developing communities of practice.
- Transferring best practices gained from collaborative knowledge sharing.
- Effectiveness in identifying and accessing internal and external expertise.
- Establishing knowledge-based reward and recognition systems.

Creating a learning organization

The key drivers of this knowledge performance dimension include:

- Developing a knowledge-driven enterprise learning strategy.
- Developing collaboration/partnerships for accelerated learning.
- Developing and/or acquiring learning methodologies, tools and techniques.
- Converting individual tacit into enterprise explicit knowledge.
- Developing communities of practice.
- Learning by doing.
- Coaching and mentoring.
- Developing an organizational learning infrastructure, e.g., corporate intranet for the internal and external exchange of learning experiences.
- Moving from individual learning to organizational learning.

Most knowledge enterprises understand that to grow and prosper in the 21st century, they will have to innovate, develop new knowledge and create maximum value for their customers and shareholders. To establish this environment of creativity and innovation, a growing number of firms are transforming themselves into learning organizations.

Delivering value based on stakeholder knowledge

The key drivers of this knowledge performance dimension include:

- Developing and deploying an enterprise knowledge-driven stakeholder value strategy.
- Creating and managing stakeholder value profiles and maps.
- Creating stakeholder value chains.
- Developing and/or acquiring tools and techniques to collect and gain value from stakeholder knowledge.
- Developing and managing stakeholder databases.
- Developing tools and techniques to extract value from stakeholder knowledge.

- Measuring changes in the stakeholder value chain.

The knowledge economy has changed the goal posts in terms of winning customers and retaining their loyalty. It is now possible to market to customers on a global scale and to know more about their needs, wants and desires than ever before. On the other hand, customers and other stakeholders are becoming more discerning – they are knowledgeable about what they want, how much they will pay for it, and from whom they will purchase it.

Transforming enterprise knowledge into shareholder/stakeholder value

The key drivers of this knowledge performance dimension include:

- Developing and deploying an enterprise knowledge-driven strategy for increasing stakeholder/shareholder value.
- Mapping and developing knowledge value chains.
- Managing and measuring knowledge value chains.
- Measuring changes in enterprise stakeholder/shareholder value.
- Communicating/reporting on knowledge-based value creation.

Organizations have discovered that this knowledge performance dimension, along with ‘Maximizing Enterprise Intellectual Capital,’ is the most difficult to manage at a strategic level. The concept of knowledge-driven stakeholder/shareholder value continues to be hard to grasp, and tools and techniques are lacking to make it visible within the enterprise as well as to external stakeholders.

Part of the difficulty is that most companies are still operating with industrial age financial and accounting systems. Attempting to measure and manage knowledge processes that create wealth – especially those activities that focus on long-term paybacks – are still beyond the grasp of most organizations.

Appendix 2: MAKE Methodology

The Most Admired Knowledge Enterprises (MAKE) research program is based upon the Delphi research methodology which was developed in the 1950s by the Rand Corporation as a long-range forecasting tool. When using the Delphi research methodology, a panel of experts is asked a series of specific questions over several rounds. After each round of responses, individual opinions are shared, allowing each panel member to understand what the other experts think. Discovering other experts' opinions helps to reinforce those in agreement, and to influence those who did not initially agree to possibly consider other factors. In the next round, the experts revise their estimates. The process is then repeated, usually for no more than three or four rounds, until a broad consensus is reached.

The Delphi method promotes unbiased exchanges of ideas and discussion and usually results in a convergence of opinion. It is one of the best approaches to forecasting long-range trends and opinion.

The goal of the MAKE research is to obtain a consensus of expert opinion regarding which organizations are leaders in long-term wealth creation based on transforming enterprise knowledge into superior processes/products/services/solutions.

A total of 1,250 experts were invited to join the 2017 European MAKE panel:

- 438 senior executives, including the chief executive officer, chief financial officer and chief technology officer/chief information officer, of each *Fortune* European-headquartered 500 company by sales (146 companies).
- 812 chief knowledge officers and leading knowledge management, intellectual capital, innovation, and organizational learning practitioners drawn from business, consulting, academia and research.

Asia now hosts the largest number of *Fortune* Global 500 headquartered companies. The Americas and Europe, on the other hand, continue to decline in share of the *Fortune* Global 500 companies. The *Fortune* Global 500 companies (by location of the firm's headquarters) are distributed as follows:

- Americas 153 companies (30.6%)
- Asia 201 companies (40.2%)
- Europe 146 companies (29.2%)

Every attempt is made to 'balance' the European MAKE expert panel by 'weighing' the members of the panel of experts so that each region has the appropriate geographic representation. Therefore, there shouldn't be a bias towards organizations headquartered in any particular region. The 2017 European MAKE study was conducted during March-May 2017.

The 2017 European MAKE panel of experts were considerably more positive view about the global economy when compared to the 2017 European MAKE panel of experts. They were optimistic about growth prospects in the United States

Trends observed in the European MAKE study include:

- There was a slight increase in the number of 2017 European MAKE Finalists (23) compared to last year's European MAKE study (21). The 2017 European MAKE Finalists were located as follows: Denmark (1), Finland (1), France (4), France/the Netherlands (1), Germany (6), Ireland (1), Israel (1), Spain (5), Switzerland (1), Russia (1) and the United Arab Emirates (1).
- Although the 21st century is forecast to be Asia's century, American and European organizations continue to dominate many of the third-party, independent 'most admired' studies rankings.
- Europe has an aging population when compared to the Americas and Asia, and organizations in European countries are finding it increasingly difficult to recruit, train and retain key knowledge workers.
- This year's European MAKE Winners are recognized for creating knowledge-driven enterprise cultures, and developing new products, services and solutions.
- European-headquartered organizations face challenges in developing knowledge leaders and workers

In common with other Delphi-based 'Most Admired' studies, such as *Fortune's* 'World's Most Admired Companies,' senior executives participating in the MAKE research are knowledgeable regarding the strengths and weaknesses of European peer companies across the eight MAKE knowledge dimensions, based mainly on perceptions of organizational strategic performance. On the other hand, the panel of KM experts tends to have a greater understanding of enterprise best practices at the knowledge process level. Therefore, the two components of the MAKE expert panel complement each other.

The 2017 European MAKE study consisted of three rounds of consensus-building. In the first round the expert panel was asked to nominate leading knowledge-driven organizations – located anywhere in the European – from all sectors (including non-profit and public sector).

In the second round, the 2017 European MAKE expert panel members selected a maximum of three organizations from the list of nominations. Those organizations selected by at least 5% of the expert panel were recognized as 2017 European MAKE Finalists.

In the third and final round, the expert panel rated the 2017 European MAKE Finalists against the eight MAKE knowledge performance dimensions. The nominated enterprises' performance was rated on a scale of 1 (poor) to 10 (excellent) for each knowledge dimension. The maximum overall score for an enterprise against the eight dimensions was 80.

The top European MAKE Finalists by total composite score are recognized as European MAKE Winners.

Appendix 3: 2017 European MAKE Nominees

A total of 48 organizations were nominated in the 2017 European MAKE study (in alphabetical order):

- Accenture (Ireland)
- Airbus (Airbus Group) (France)
- Area (France)
- Arup (UK)
- Atos IT Solutions (Atos) Germany
- BASF (Germany)
- BMW (Germany)
- Bouygues (France)
- Capgemini (France)
- Check Point Software Technologies (Israel)
- Continental AG (Germany)
- Cuatrecasas, Gonçalves Pereira (Spain)
- Coolblue (the Netherlands)
- Daimler (Germany)
- Dubai Electricity & Water (Dubai, UAE)
- Dyson (United Kingdom)
- Ericsson (Sweden)
- Festo (Germany)
- Fira Group (Finland)
- Garrigues (Spain)
- Groupe Herve (France)
- Grupo Antolin (Spain)
- Heltti (Finland)
- IDATE (France)
- Inditex (Spain)
- ING (the Netherlands)
- Keolis (France)

- LafargeHolcim (Switzerland)
- LEGO (Denmark)
- Lukoil (Russia)
- Mercadona (Spain)
- Novartis (Switzerland)
- Novo Nordisk (Denmark)
- Ponee (Finland)
- Robert Bosch (Germany)
- Royal Dutch Philips (the Netherlands)
- Royal Dutch Shell (the Netherlands/UK)
- SAP (Germany)
- Schlumberger (France/USA)
- Schneider Electric (France)
- Siemens (Germany)
- Systematic (Denmark)
- Telefónica (Spain)
- Transport for London (United Kingdom)
- Unilever (the Netherlands)
- Uría Menéndez (Spain)
- Virdys (France)
- World Web Forum (Switzerland)

Appendix 4: 2017 European MAKE Finalists

A total of 23 organizations were recognized as 2017 European MAKE Finalists (based on nominations from at least 5% of the European MAKE expert panel). They are listed alphabetically:

- Accenture (Ireland)
- Airbus (Airbus Group) (France)
- Atos IT Solutions (Atos) Germany
- BASF (Germany)
- Check Point Software Technologies (Israel)
- Continental AG (Germany)
- Cuatrecasas, Gonçalves Pereira (Spain)
- Dubai Electricity & Water (Dubai, UAE)
- Festo (Germany)
- Fira Group (Finland)
- Garrigues (Spain)
- Inditex (Spain)
- Keolis (France)
- LEGO (Denmark)
- Lukoil (Russia)
- Novartis (Switzerland)
- SAP (Germany)
- Schlumberger (France/USA)
- Schneider Electric (France)
- Siemens (Germany)
- Telefónica (Spain)
- Uría Menéndez (Spain)
- Virdys (France)