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Transforming to Meet the Needs of the Future: The CPA “Way Forward” Competency Map (CM2.0)

Comment by September 30, 2021

An illustration of a person with a beard, wearing a light blue sweater and dark pants, standing in a doorway. The person is looking out towards a bright white light. The background is a vibrant yellow on the left and a dark blue on the right. The text 'START FROM SCRATCH!' is overlaid on the image in large, bold, colorful letters. 'START' is green, 'FROM' is orange, and 'SCRATCH!' is light blue.

START FROM SCRATCH!

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That was a mandate given to the [Competency Map Task Force](#) eighteen months ago. Quite a daunting task to design something as important as the competency map but being asked to draft using a blank sheet rather than updating or amending the existing framework.

We spent our first year resisting the urge to start drafting but rather spent that time researching, listening, reading, talking, debating and settling on guiding and framing principles. Only after completing that preparatory work did we turn to the actual drafting of the proposed competency map. We are very grateful to the individuals who have participated in the more than one hundred consultation and information sessions we have conducted over the past year and a half. We spoke with academics, business leaders, regulators, public sector representatives, provincial Councils and Ordre, CPAs, CPA students and non-CPAs. We also benefited from the views and ideas shared by volunteers of the Task Force's Discussion Forum. Insights and guidance from all of these contributors helped form the draft map which follows.

Our goal was to develop a new competency map that will stand the test of time and allow our profession to remain relevant and adapt to an ever-changing environment while still being mindful of what distinguishes us as CPAs. We realize for many, the new map will take some time to digest. Even for the Task Force it has taken time for us to become comfortable with the significantly different approach we took compared to the previous map. The new map has implications for assessment, teaching and ongoing professional development. Accordingly, CPA Canada and CPA provincial bodies are embarking on a Certification 2.0 process to address these issues. Notwithstanding our diligence, I am sure we have made mistakes and have not thought about every possibility thus the importance of the comment period. The Task Force looks forward to your views and thoughts.

I feel very privileged to be working on this project with an incredible group of volunteers who make up the Task Force. I am very grateful to each of them for the time, effort and thoughtfulness they have given to this project. I know I speak for the entire Task Force in thanking the numerous people who have assisted over the past eighteen months. There are too many to list all of them individually, but we would be remiss if we did not specifically call out the efforts of Irene Wiecek, Rebecca Villmann, Andrea Sewell, Andrea Civichino, Marita Gaudario, Craig Smith, Tami Hynes, Tashia Batstone and Jylan Khalil.



Tim Jackson, FCPA, FCA
Chair of the Competency Map Task Force

WELCOME COMMENTS

The Competency Map Task Force is asking for comments on the CPA “Way Forward” Competency Map (CM2.0) from diverse perspectives of the CPA Profession, including employers, educators and CPAs from across Canada and internationally. Consider the [additional materials](#) about CM2.0, research and consultation insights, and reflect on CM2.0.

Join a [consultation event](#) and/or complete the [CM2.0 Feedback Survey](#) by **September 30, 2021**. If you have any questions, please contact Rebecca Villmann at rvillmann@cpacanada.ca. All input will be considered by the Task Force as part of updating and finalizing the CM2.0 for release in January 2022.



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BACKGROUND

The world around us is changing at an ever-increasing pace. To respond, the CPA profession initiated a process to reimagine the competencies and skills required by CPAs at the pre-certification level with the goal of creating future ready CPAs.¹ The Competency Map Task Force was established and first met in March 2020. To date, the Task Force has completed much of its research and has engaged broadly with stakeholders to define the skills and competencies in a new competency map (CM2.0). CM2.0 is underpinned by extensive research and stakeholder engagement. This is not a traditional map. Instead, it is a map that reflects a world that is in constant flux. As such, CM2.0 is presented in a way that allows it to adapt and transform as things evolve.



EMERGING THEMES

Several themes have emerged from the Task Force's research and stakeholder engagement that build on the work that the CPA profession has undertaken (including the CPA Foresight project).ⁱⁱ These themes include:

- 1. New areas of opportunity:** There exist significant and new opportunities for the profession in the areas of data and data governance, sustainability, value creation and innovation (technological or otherwise).
- 2. The influence of automation:** Automation is a pervasive trend, and many entry level CPA job opportunities are changing and/or disappearing as a result.
- 3. The burgeoning body of knowledge:** The accounting body of knowledge continues to expand and is overloading accounting curriculums.
- 4. Interconnectedness:** We are increasingly part of broader interconnected systems where people are connected with each other, things are connected with other things and people are connected with things (e.g. cloud computing, distributed ledger technologies, supply chains, collaborative work environments).
- 5. The CPA value proposition:** There is a need and opportunity to ensure that Canadian CPAs are perceived as leaders in creating Canada's future economy and society while maintaining strengths in traditional accounting competencies.



OVERVIEW OF CM2.0ⁱⁱⁱ

CM2.0 will help prepare future-ready CPAs at the pre-certification level by:

1. Ensuring that pre-certification CPAs continue to bring rigour, structure and trust to the decision process even as the environment continues to change.
2. Fostering human skills and values that are more resilient to automation (including curiosity and creativity).
3. Creating future-focused pre-certification CPAs who understand complex and interconnected systems and are tech savvy in order to take advantage of technological and other innovations.
4. Laying the foundations for evergreen learning^{iv} and future specialization in existing and emerging areas.
5. Focusing on a foundational common core for all pre-certification CPAs which will facilitate collaboration with other experts (e.g. in the areas of science and data science).
6. Embedding an ethical mindset with an emphasis on integrity and ethical decision making.
7. Embracing the higher calling of the profession (to act in and protect the public interest) in an increasingly complex, diverse and global environment.

Pre-certification CPA Pathway

The pre-certification pathway consists of three components, as follows:

1. **Education — Post-secondary institutions (PSI) and/or CPA professional education program (including entrance requirements/prerequisites)**
2. **Experiential — Work experience**
3. **Evaluation — Assessment at the professional level**

The pre-certification CPA pathway reflects the foundational common core, generalist view of the pre-certification CPA. The focus is less on detailed prescriptive knowledge and more on deeper thinking while mastering the basics.

Where are competencies gained?

CM2.0 does not determine where in the CPA pathway, competencies are gained. They could be gained during the education component (PSI/CPA professional education program), through practical experience or through a combination of the two components. Some competencies are best learned in a classroom environment and some are best learned on the job, through experiential learning.

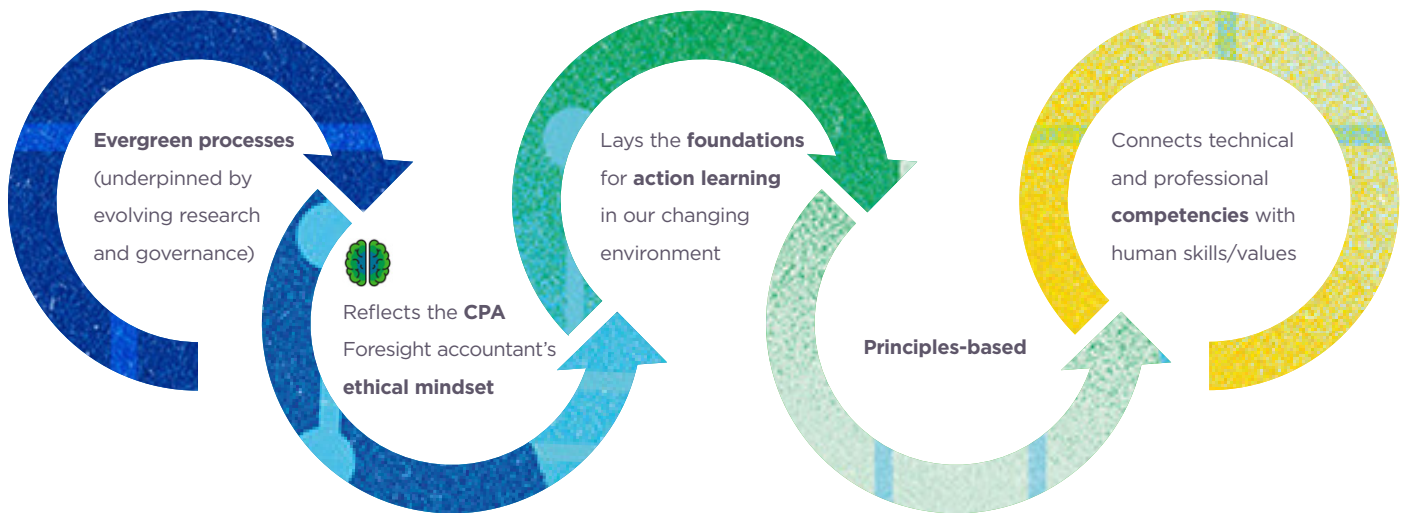
How are competencies assessed at the professional level?

The method of assessment of competencies is not defined in CM2.0. The CPA profession, has initiated a project that will look at the CPA professional education program, assessments and practical experience requirements, including how these are affected by CM2.0. This Certification 2.0 project will involve continued consultation regarding next steps, including defining a transition period.




CM2.0 FRAMING PRINCIPLES

There are five CM2.0 framing principles as outlined below:



How will the CM2.0 framing principles and CPA Ethical Mindset be reflected in CM2.0?

- 1. Evergreen processes:** The evergreen nature of the map is reflected in the use of sub-foundational and foundational underpinnings and competencies identified through research and stakeholder engagement. The more general wording of these underpinnings and competencies allows for continuous change. The Task Force continues to engage in ongoing research using artificial intelligence and intelligence augmentation. The focus on the decision process as a framework for the competencies will allow for the map to remain evergreen as decisions change to accommodate the changing environment.
- 2. CPA Ethical Mindset:** The CPA Ethical Mindset is reflected through the use of visualizations, including the following visualization  and through the use of the wording of the competencies in CM2.0, enabling pre-certification CPAs to be future-focused and tech savvy. The mindset reflects human skills and values as well as professional competencies (including acting in and protecting the public interest) in all decisions and actions undertaken by the pre-certification CPA. It is explained further in the next section.
- 3. Foundations for action learning^v:** CM2.0 articulates sub-foundational and foundational underpinnings and competencies which are grounded in existing and emerging concepts, theories and frameworks. Emphasis is placed on innovation and the use of new technological tools, models and concepts. These foundations support evergreen learning and ongoing action learning, allowing post-designated CPAs to continue to build knowledge and skills and perform to a high standard in order to maintain relevance.
- 4. Principles-based:** CM2.0 is principles-based as reflected in the framework used, which outlines core decision competencies and the related underlying foundations upon which they rest.
- 5. Integration:** Competencies are integrated. Each competency incorporates technical and professional competencies as well as human skills and values. Technical competence cannot be separated from professional competencies or human skills and values.



CM2.0 CPA ETHICAL MINDSET^{vi} — Including Human Skills/Values and Professional Competencies

The CPA Ethical Mindset reflects who we are, what we do and where we do it. It encompasses both human skills and values (e.g. curiosity, creativity and resilience) as well as professional competencies (e.g. acting in/protecting the public interest and being technologically savvy).



CM2.0 CPA Ethical Mindset

Layer 1

Who we are — We are ethical and act in/protect the public interest, with integrity, due care, objectivity and competence. We are innovative, collaborative, agile, curious, creative, resilient and technologically savvy as we continue to learn, lead and grow.

Layer 2

What we do — We sustain and create value for stakeholders by bringing logic, structure and trust to the process of measuring and managing performance. We are future-focused, embracing change and technology to foresee opportunities, create long-term value and manage risk for people, organizations and more broadly, for society and the planet.

Layer 3

Where we do it — We operate in a global environment that is ever-changing.

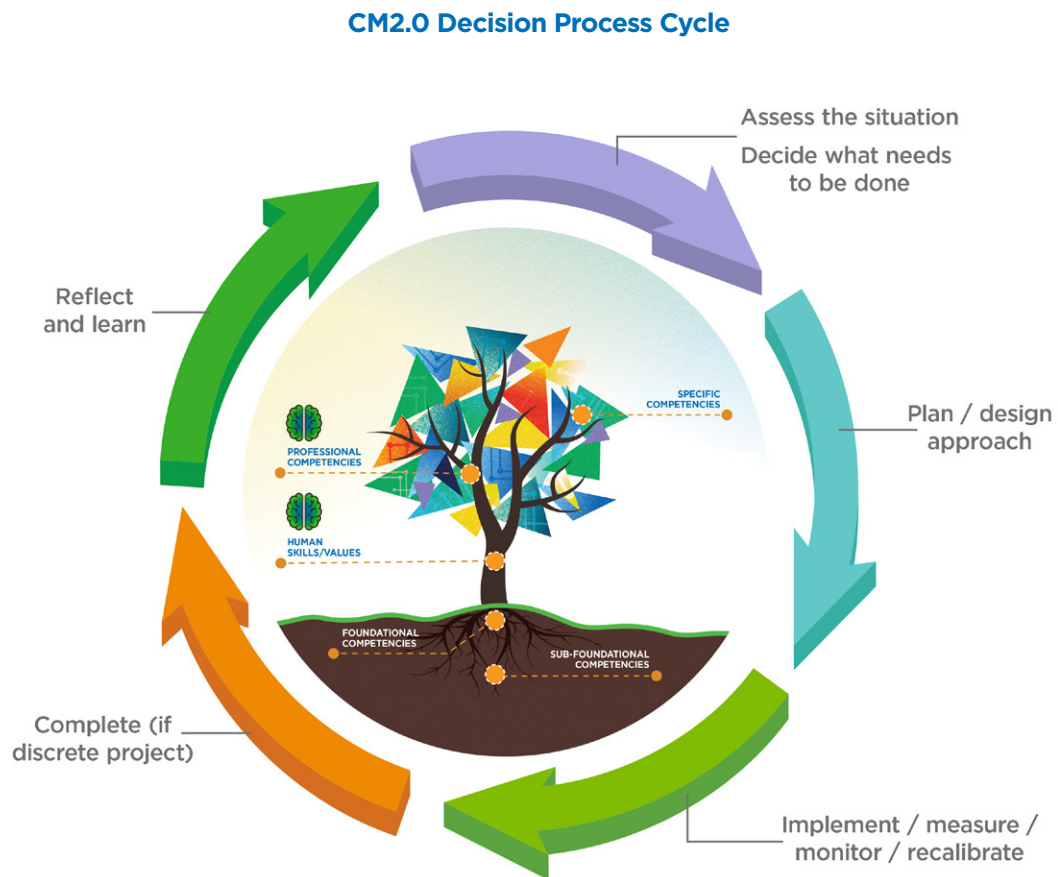
As a high-level competency, CPAs sustain and create economic value for stakeholders by bringing logic, structure and trust to the process of measuring and managing performance. Measuring and managing performance is important to allow stakeholders to effectively allocate resources to what they believe to be important (e.g. long-term value creation, data privacy, sustainability).

CPAs apply the CPA Ethical Mindset to make, facilitate and implement performance-related decisions in an ethical manner. The next section articulates the Decision Competencies as framed by the Decision Process Cycle.

CM2.0 DECISION PROCESS CYCLE

The Decision Process Cycle defines the process of making, facilitating and implementing performance-related decisions while applying the Integrated Common Core. It identifies five steps around which Decision Competencies are grouped.

This is all reflected in the Decision Process Cycle visualization below, with the tree in the centre depicting the Integrated Common Core.



The Integrated Common Core is discussed in the next section.



CM2.0 INTEGRATED COMMON CORE

The Integrated Common Core is made up of two intertwined parts:

1. the CPA Ethical Mindset (human skills/values and professional competencies)
2. the Foundational Common Core.

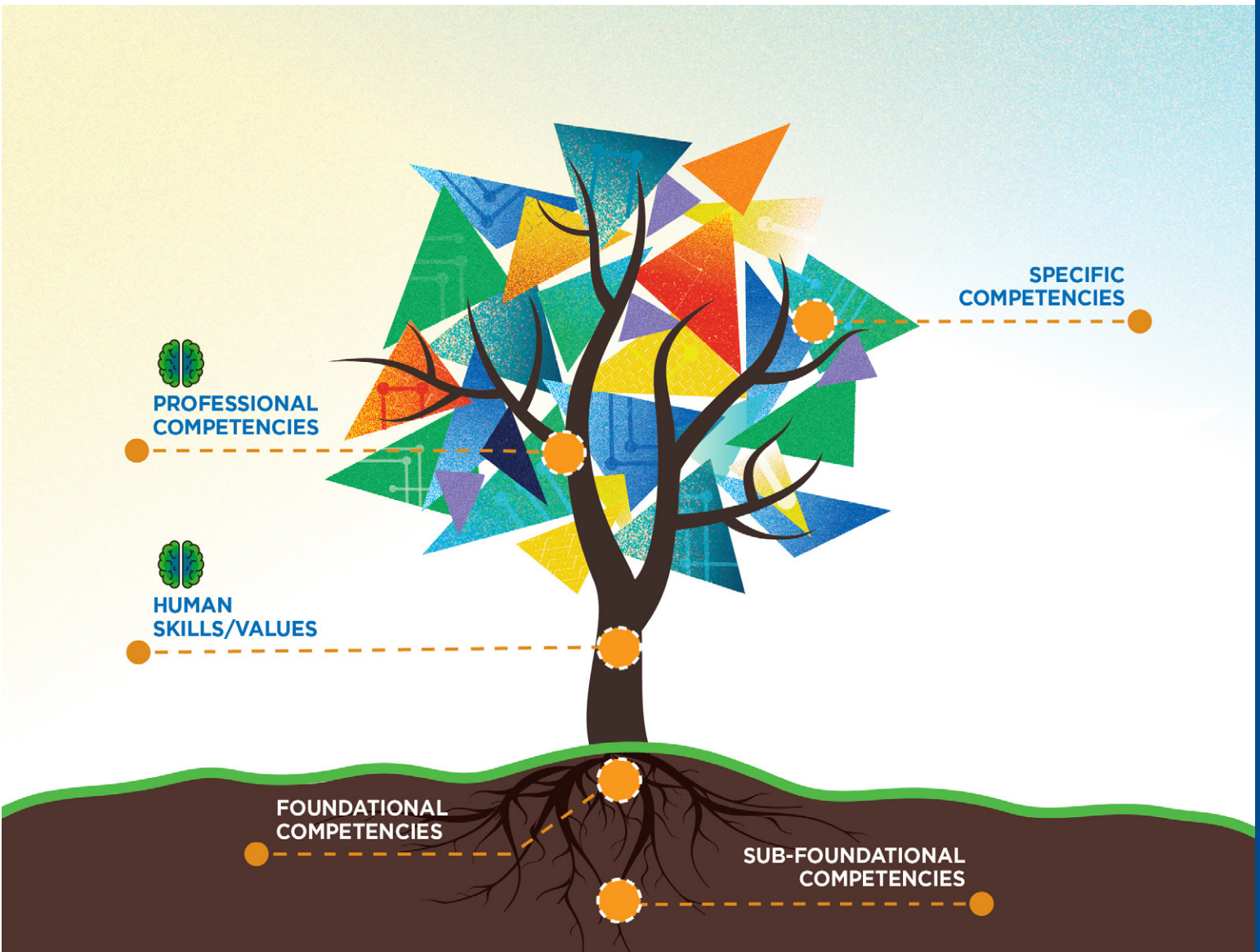
The Foundational Common Core represents the underlying body of knowledge and is grouped into the following three parts:

1. **Sub-foundational** — reflecting general and emerging areas that are present in the global environment in which CPAs work
2. **Foundational** — reflecting those areas of study that are related to business, government and other organizations and the way they are structured and operate
3. **Specific** — reflecting the area of professional accounting

Specific competencies build on the sub-foundational and foundational competencies.

The visualization presented here, illustrates the integrated nature of CM2.0 as an interconnected system. Foundational and sub-foundational competencies are represented by the roots and trunk of the tree and illustrate the deep-rooted, enduring qualities of the CPA as an ethical professional. Human skills/values and professional competencies (CPA Ethical Mindset) are the nutrients that flow through the trunk and branches, playing a vital role in sustaining the tree. Specific competencies are represented by the leaves, which are agile and change with the changing environment as required.

CM2.0 Integrated Common Core



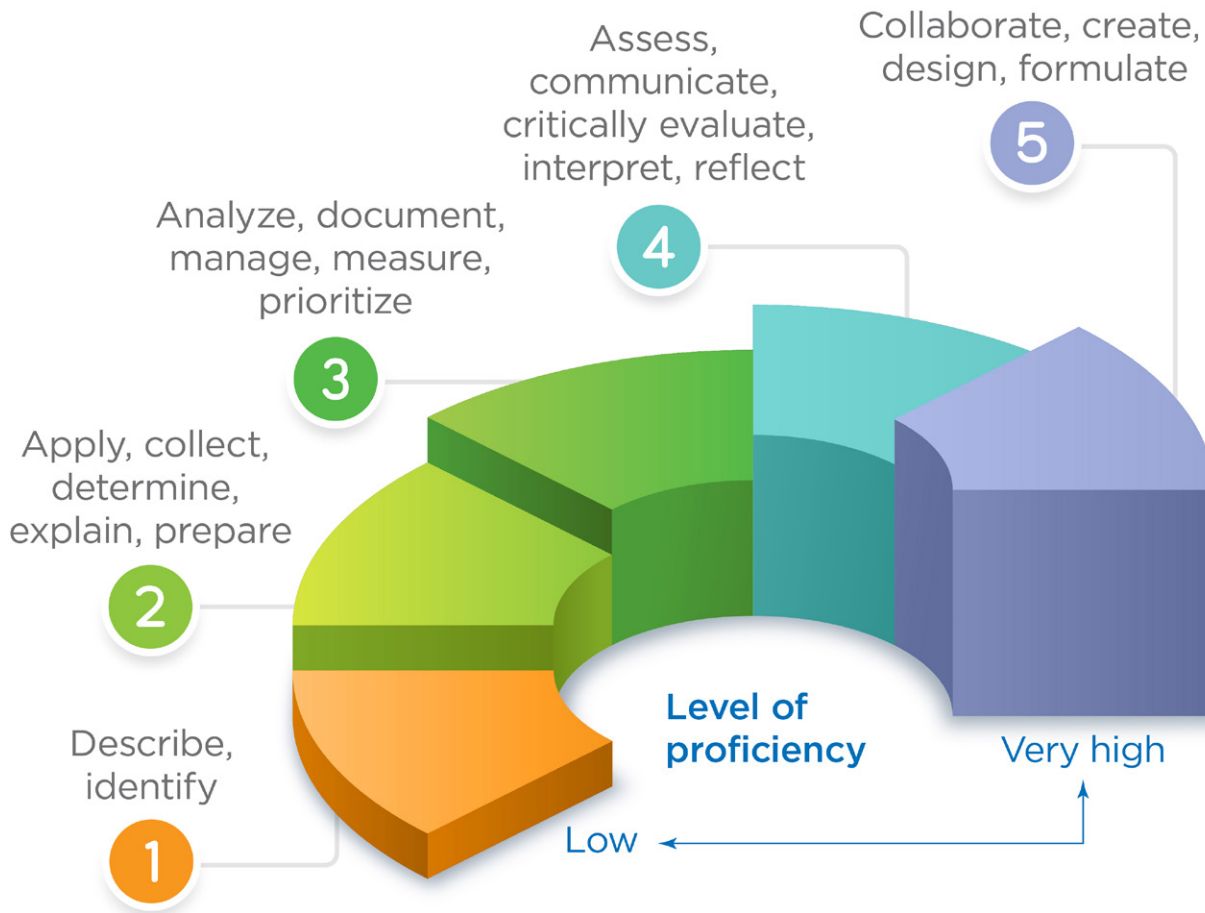
The next section identifies verbs that are used in CM2.0 to signal proficiency levels.



CM2.0 PROFICIENCY LEVELS^{vii} — Proficiency Spectrum of Verbs

Verbs have been used to signal proficiency levels as noted in the following visualization. Levels of proficiency are also signalled in the [Foundational Common Core](#) where different proficiency levels are assigned to each part (sub-foundational, foundational and specific competencies). See [Appendix](#) for verb definitions.

CM2.0 Proficiency Spectrum of Verbs



Depth is demonstrated by the use of more verbs from the higher proficiency levels, the designation of Foundational and Specific Competencies at intermediate level of proficiency or higher and the rigour reflected in the Decision Competencies.

The next two sections cover the Decision Competencies and the Common Core Competencies.



COMPETENCIES

Part 1: CM2.0 Decision Process Cycle – Decision Competencies

The Decision Competencies are articulated below. Although there is always merit in considering all steps in the Decision Process Cycle, professional judgement is used in determining the specific steps to be undertaken. This determination is based on the nature and significance of the decision being made as well as associated risks. Consider the five steps as a guide. Ethics are considered at every stage of the cycle reflecting the fact that CPAs act in and protect the public interest.

Five steps in making, facilitating and implementing performance related decisions	Decision competencies ^{viii} – The Decision Competencies (DC) use the five-step Decision Process Cycle in an integrated manner, considering the Integrated Common Core levels of proficiency. They illustrate the rigour that CPAs bring to the process of measuring and managing performance.
Overall	DC1 – Critically evaluate actions and decision using the CPA Ethical Mindset. DC2 – Assess the need to use optimal technology and apply systems thinking at every stage. DC3 – Assess the need to ask a more experienced CPA.
1. Assess the situation/decide what needs to be done	DC4 – Critically evaluate and analyze opportunities and risks, to determine decisions needed to be made and courses of action to be taken, given changing internal and external environment (e.g. understand controls and governance structure of an entity plus industry and economic trends). DC5 – Assess (changing) information needs and expectations of appropriate stakeholders (e.g. investors, members of surrounding communities) considering potential bias, significance (e.g. materiality) of issues and long-term (multi-generational) impacts. DC6 – Prioritize opportunities, risks and other decision-related issues based on stakeholder information needs and expectations.
2. Plan/design approach	DC7 – Given stakeholder needs and expectations, use creativity and up-to-date insights to design the approach to the project. Consider opportunities to lead, innovate and collaborate with others, including experts in other disciplines, as well as best practices. DC8 – Identify appropriate and up-to-date internal standards and criteria (e.g. vision, mission, strategy and entity/societal values) and/or external standards, regulations, laws and criteria (e.g. accounting, assurance and tax). For Specific Competencies articulated in the Integrated Common Core assess impact of using alternative external standards, regulations, laws and criteria. DC9 – Identify key performance indicators/metrics. DC10 – Assess level of expertise required and whether/when/how to consult with/ collaborate with experts in other disciplines. DC11 – Determine nature of data required as an input for decision-making [e.g. type (financial versus non-financial); source (internal versus external), information systems, timeframe (past versus future), and perspective (entity versus stakeholders)]. DC12 – Formulate forward-looking assumptions, considering major uncertainties, interdependencies (e.g. tax or other implications), and reasonableness of possible options/scenarios. DC13 – Communicate the approach to the project/the plan with relevant stakeholders to ensure that it makes sense in the context of stakeholder needs.



<p>Five steps in making, facilitating and implementing performance related decisions</p>	<p>Decision competencies^{viii} – The Decision Competencies (DC) use the five-step Decision Process Cycle in an integrated manner, considering the Integrated Common Core levels of proficiency. They illustrate the rigour that CPAs bring to the process of measuring and managing performance.</p>
<p>3. Implement plan including measuring and monitoring progress, recalibrating where necessary</p>	<p>DC14 – Effectively manage project/plan including sharing plan, working collaboratively, mentoring staff, identifying opportunities to innovate and delivering results on a timely basis (e.g. leading assurance engagement team during site visit, supervising subordinates, managing workflows and being accountable to manager).</p> <p>DC15 – Using measurement and risk/uncertainty management frameworks, collaborate with experts in other disciplines to create and test flexible, predictive and other models that are future-focused.</p> <p>DC16 – Collect sufficient and appropriate data/evidence/inputs for decision.</p> <p>DC17 – Prepare data, including cleaning data and grading quality.</p> <p>DC18 – Assess data integrity (e.g. trustworthiness) and technical validity/precision of measurement information (e.g. in the context of materiality).</p> <p>DC19 – Considering decision taken in DC8, critically evaluate and analyze prioritized issues (and alternatives) including identifying interdependencies (e.g. financing or data privacy implications) and any biases that may be present.</p> <p>DC20 – Given stakeholder information needs and expectations, interpret findings in an integrative manner.</p> <p>DC21 – Determine optimal communication channel and form of communication (e.g. financial statements, sustainability report or speech), considering regulatory requirements, technology and stakeholder needs.</p> <p>DC22 – Effectively manage controls, systems and other activities on a continuous basis, measuring against key performance indicators/metrics and deciding if recalibration is necessary.</p>
<p>4. Complete (if discrete project)</p>	<p>DC23 – Document and communicate analysis, findings, decision and next steps in a transparent and understandable manner, considering audience/stakeholders and appropriate communication channels/tools. Ensure all communications fairly reflect underlying substance.</p>
<p>5. Reflect and learn</p>	<p>DC24 – Critically evaluate, analyze and reflect on the findings and processes in order to continue to learn and identify possible innovations that will create added value in future. This is done at individual, team and organizational levels.</p>



COMPETENCIES

Part 2: CM2.0 Integrated Common Core Competencies (Foundational Common Core and CPA Ethical Mindset)

The Foundational Common Core Competencies are articulated below:

<p>FOUNDATIONAL COMMON CORE AND CPA ETHICAL MINDSET </p>	<p>Sub-foundational, Foundational and Specific Competencies (SFC) - The Foundational Common Core competencies reflect the CPA Ethical Mindset and are viewed through the lens of the other areas since many of these competencies are interconnected. All areas should consider the rapid pace of technological innovation and automation.</p>
<p>Sub-foundational (SF): Relates to general and emerging areas that are present in the global environment in which CPAs work. Lower level of proficiency^x. See Appendix for definitions.</p>	
<p>Equity, diversity and inclusion (EDI)</p> <p>Indigenous views/ indigeneity</p> <p>Systems thinking and complexity theory</p> <p>Emerging and transformative technologies (e.g. artificial intelligence, intelligence augmentation, distributed ledgers and others)</p>	<p>SFC1 - Identify core theories and terminology underpinning these areas including those that are emerging (e.g. cultural competence).</p> <p>SFC2 - Identify related standards, regulations, laws, criteria and frameworks (For example, fair artificial intelligence and intelligence augmentation^{xi}), including those that are emerging.</p> <p>Need not know all standards, regulations, laws, criteria and frameworks but be able to research and identify them as they evolve.</p>
<p>Foundational (F): Relates to business, government and other organizations and the way they are structured and operate. Intermediate level of proficiency^{xii}.</p>	
<p>Sustainability - including environmental, social and governance (ESG)</p> <p>Economics and the underlying areas of quantitative methods and probability</p> <p>Law and legal forms of business</p> <p>Organizational behaviour including human behaviour/ bias</p>	<p>FC1 - Explain and apply core theories and terminology underpinning these areas in an integrated manner (including those that are emerging). For example, discussions about bias might include comments about specific bias inherent in individual views and group think, artificial intelligence, intelligence augmentation and/or sustainability reporting/discussions about a regenerative economy.</p> <p>FC2 - Identify related standards, regulations, laws, criteria and frameworks (e.g. sustainability standards), including those that are emerging.</p> <p>Need not know all standards, regulations, laws, criteria and frameworks but be able to research and identify them as they evolve.</p> <p>FC3 - Apply frameworks and methods for measuring and managing risk and uncertainty in decision-making and reporting contexts (including those that are emerging). For example, this may include measuring long-term financial and non-financial value streams from a multi-stakeholder perspective.</p> <p>Need not know all frameworks and methods but be able to research and identify the framework or method to be applied as these evolve.</p>



FOUNDATIONAL COMMON CORE AND CPA ETHICAL MINDSET

Sub-foundational, Foundational and Specific Competencies (SFC)

- The Foundational Common Core competencies reflect the CPA Ethical Mindset and are viewed through the lens of the other areas since many of these competencies are interconnected. All areas should consider the rapid pace of technological innovation and automation.

Specific (S): Relates to professional accounting. Higher level of proficiency^{xiii}.

Value creation^{xiv}

Finance

Financial and non-financial reporting

Tax

Assurance and trust

Big data^{xv}, data analytics

Strategy, risk management and innovation

Management decision making and information (data) systems/technology

Ethical decision-making and organizational governance/ data governance (including privacy and security)

SC1 - **Critically evaluate, analyze and apply** core theories, frameworks and terminology underpinning these areas in an integrated manner (including those that are emerging) to inform the decision process. For example, discussions about strategy, business models and innovation would build upon foundational knowledge of sustainability, artificial intelligence and/or value creation.

SC2 - **Apply** accounting and assurance standards, and tax requirements as needed (e.g. CPA Canada Handbooks, CPA Canada Public Sector Handbook and Canadian Income Tax Act) by researching and analyzing issues in routine situations of low to moderate levels of ambiguity, complexity and uncertainty.

Need not know all aspects of the accounting and assurance standards and tax requirements but must be able to navigate the body of knowledge as it continues to evolve.

SC3 - Where required, **explain** the decision-relevant features of other standards, regulations, laws and criteria (i.e. those that do not relate to accounting, assurance and tax).

Need not know all standards, regulations, laws and criteria but be able to research and identify the standards, regulations, laws and criteria to be applied as these evolve.

SC4 - **Apply** measurement fundamentals to assess technical validity and precision of measurement information (transaction-based and beyond transactions) used in decision-making and reporting.

SC5 - **Describe** how accounting, tax and assurance standards, regulations, criteria and laws are developed and **explain** why they are important in the context of capital markets, government and society (including when they may be lacking).

SC6 - **Explain** the impact of technological innovation and automation including how technology is changing traditional ways of doing things including business models (For example, facilitating forward looking, real-time, decentralized reporting and analysis for decision-making, requirements for enhanced cyber-security).



APPENDIX OF DEFINITIONS

CM2.0 Proficiency Levels^{xvi}

Verbs by level of proficiency	Definition
Describe	Recount the key features of something
Identify	List or ascertain possibilities
Apply	Demonstrate knowledge, concepts, or techniques
Collect	Gather information considering provenance, lineage, attributes, quality and trustworthiness ^{xvii}
Determine	Ascertain or conclude after careful consideration; judge
Explain	Make clear or intelligible; state the meaning of or reasons for
Prepare	Make or get ready for use
Analyze	Examine methodically, by separating into parts and studying the interrelationships in order to discover and carefully judge essential features including patterns and themes
Document	Record (information, insights, guidance) in written or other form, being careful to capture all relevant information
Manage	Administer and regulate (resources under one's control) adapting to changing environments
Prioritize	Determine the order for dealing with a series of items or tasks according to their relative importance
Assess	Judge the value, importance, or qualities of something, and draw conclusions, considering differing perspectives
Communicate	Convey meaning clearly and succinctly when speaking, presenting and writing, by actively listening, and considering the needs of diverse stakeholders and selecting the most appropriate communication media/technology
Critically evaluate	Use professional judgment to objectively and carefully examine, with curiosity, scepticism and without bias
Measure	Apply measurement bases and models to quantify items and value streams in financial and non-financial terms
Interpret	Make sense of or give meaning to information
Reflect	Think deeply and carefully with a view to continuous improvement
Collaborate	Partner with individuals, teams and technology throughout an organization and with external experts. Participate in, build and lead goal and value-oriented teams and draw on the strengths and skills of diverse perspectives.
Create	Conceive or fashion with an innovative mindset
Design	Use professional judgment to devise the form or structure of something
Formulate	Devise and put a plan into words

CM2.0 CPA Foundational Common Core

Foundational Common Core — select items	Definition
<p>Equity, Diversity and Inclusion (EDI)^{xviii}</p>	<p>Includes:</p> <ul style="list-style-type: none"> • capturing the uniqueness of the individual • creating an environment that values and respects individuals for their talents, skills and abilities • recognizing differences within groups of individuals, using this understanding to achieve substantive equality
<p>Indigenous views/indigeneity^{xix}</p>	<p>Includes understanding:</p> <ul style="list-style-type: none"> • the effect of Canadian history on Indigenous peoples, Indigenous culture, rights and perspectives • the importance of stewardship of the land for future generations <p>as part of building respectful relationships and walking alongside to learn and share experiences.</p>
<p>Systems thinking and complexity theory^{xx}</p>	<p>Includes understanding:</p> <ul style="list-style-type: none"> • the interconnectedness of systems, including technological, organizational, regulatory and social systems • how organizations adapt and manage interdependencies, unpredictable interactions and uncertainties
<p>Emerging and transformative technologies^{xxi} e.g., artificial intelligence, intelligence augmentation and distributed ledger technology</p>	<p>Includes understanding technologies that enable and facilitate:</p> <ul style="list-style-type: none"> • person-to-person and person-to-technology collaborations • trust in decision processes, in order to advance ongoing transformation
<p>Sustainability (Including Environmental, social and governance (ESG)^{xxii})</p>	<p>Includes understanding:</p> <ul style="list-style-type: none"> • our planetary boundaries and ecosystems • diverse perspectives • how to create and measure long term value for organizations, society and other stakeholders



REFERENCES

- i Informed by CPA profession's [Foresight initiative](#) and findings in [The Way Forward](#) report.
- ii Ibid
- iii CM2.0 considers the United Nations Sustainable Development Goals ([UNSDG](#)) in its design and coverage. This is done by acknowledging the higher calling of the CPA profession, the emphasis on high quality education and on sustainability (as a foundation for the map).
- iv Evergreen learning involves curiosity, a thirst for knowledge and a commitment to continually acquire knowledge and skills especially in an environment that is changing.
- v Action learning involves real-time problem-solving in groups, coupled with reflection, in order to identify lessons learned. Learning and reflection occurs at the individual, team and organization level.
- vi The CPA profession's Foresight initiative described the Foresight CPA as follows: "Each day, each CPA will bring insight about performance that enhances the ability of their organization(s) to more clearly foresee the opportunities that lie ahead, thereby ensuring their evolving work is applied more broadly and appreciated by a broader section of society." ([The Way Forward report](#), page 9).
- vii Based on our analysis of verbs used in other competency maps as well as Bloom's taxonomy. The verbs signal level of proficiency and each level builds upon prior levels of proficiency.
- viii Ibid
- ix IFAC uses the following levels of proficiencies to group things in the [International Education Standards \(IES\)](#) – foundational level, intermediate level and advanced level. This is useful in that it allows us to define certain areas where the level of proficiency required overall for pre-certification CPAs is lower.
- x These topics/areas could be taught in separate courses, or as part of a larger overview course, or integrated into other courses (or some combination of these).
- xi Use of AI as a tool to augment human intelligence.
- xii Intermediate level of proficiency or higher align with the level of proficiency set out in the International Education Standards (IES). Refer also to learning outcomes identified in the [IFAC Accountancy Education E-tool](#).

- xiii Ibid
- xiv Process by which an organization generates future financial and non-financial value streams and outcomes for the organization and its stakeholders. Based on description of value creation in [Value creation decisions and measurement primer \(cpacanada.ca\)](#).
- xv Data sets that have the following attributes: volume (quantity of data), variety (different sources and formats including structured and unstructured data), velocity (speed of data), variability (unpredictability of data in terms volume and speed) and veracity (quality of data) such that traditional data processing application software is inadequate to deal with them.
- xvi Based on our analysis of verbs used in other competency maps as well as Bloom's taxonomy. The verbs signal level of proficiency and each level builds upon prior levels of proficiency.
- xvii Based on Step 5 of [Corporate data policy and its elements \(cpacanada.ca\)](#).
- xviii Based on the definition of diversity by the [Canadian Centre for Diversity and Inclusion](#) and definition of equity from [Teaching human rights in Ontario - A guide for Ontario schools](#).
- xix Based on the [Truth and Reconciliation Commission of Canada, Call to Action 92, United National Declaration of Indigenous Peoples Rights, Implementing UNDRIP in Canada](#) and insights from a roundtable held by the Task Force with Indigenous business leaders and others.
- xx Based on various sources including the description of [Systems theory - Wikipedia](#), [What 'systems thinking' actually means - and why it matters today | World Economic Forum \(weforum.org\)](#) and [Ethical leadership in an era of complexity and digital change \(cpacanada.ca\)](#).
- xxi Based on CMTF commissioned research on the Competencies Expected by Leaders in Innovative Organizations from interviewing senior business leaders of innovative organizations.
- xxii Based on feedback from a foundational session the Task Force held with a group of experts in sustainability.