Three Scenarios of a Future Working World

Strategic foresight approaches to imagine and respond to a changing world of work for young adults living with a disability in Canada

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Please direct questions and reprint requests to:
Institute for Work & Health
400 University Ave., Suite 1800
Toronto, Ontario M5G 1S5

info@iwh.on.ca
www.iwh.on.ca

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Strategic foresight approaches to imagine and respond to a changing world of work for young adults living with a disability in Canada

Author and Principal Investigator

Arif Jetha, Institute for Work & Health
Twitter: @ArifJetha

Research Team

Cristina G. Banks, University of California Berkeley
Silvia Bonaccio, University of Ottawa
Ute Bültmann, University of Groningen
Monique Gignac, Institute for Work & Health
Cameron Norman, Cense LTD
Ali Shamaee, Institute for Work & Health
Peter Smith, Institute for Work & Health
Emile Tompa, Institute for Work & Health
Lori Tucker, British Columbia Children's Hospital

Scenarios Lead

Peg Lahn, Lahn & Co.

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Executive Summary

The world of work is changing at a rapid rate. Social, technological, economic, environmental, and political forces are shaping all aspects of our working world. For young adults living with a disability who are entering and advancing within the labour market, the changing nature of work can create barriers and facilitators to their employment. Actionable insights are required that can anticipate potential changes in the future of work and be used to develop responsive labour market policies and programs that promote inclusion for young adults living with a disability.

In the fall of 2022, the Institute for Work & Health (IWH) and Lahn & Co Consulting set out to examine **how working life could change in Canada over the next seven years and what the implications might be for young adults with a disability**.

To do that, the team developed scenarios — narratives describing the ways things might meaningfully change in the future. The scenarios were generated using established strategic foresight methods to identify drivers of change and important signals. Each scenario explores a plausible future that could arise and the work-related opportunities and challenges it would present for young persons living with a disability.

The aim of generating alternative scenarios is to support strategic discussions among policy-makers, employers, disability service providers and other decision-makers regarding how the future of work might emerge and impact young persons living with a disability. Findings provide a powerful tool to help design policy and programs that are resilient to changes that could occur on the horizon.

When this strategic foresight initiative was undertaken, no single experience of work existed for Canadians, especially those living with a disability. Inequities in terms of income and job quality represented a critical marker of the labour market, and these inequities continue to widen. Emerging from the present context, the future holds multiple possibilities.

The scenarios presented in this report offer distinctly different stories of change based on the dynamics they reflect and how they might shape the future of work in Canada between now and 2030. They are not intended to predict the future. Instead, they are tools to encourage and support better conversations about possible futures. Those reading this report are encouraged to explore the implications of the possibilities outlined in these scenarios now, while the risks remain low and there is time to address them.

Our team held a series of collaborative workshops with young persons with lived experience of a disability, and with a range of knowledge leaders in the disability and employment community. These findings also built on existing horizon scanning and research activities led by IWH.

Three alternative futures were developed. Each scenario differently shapes the employment experiences of young adults living with a disability and their ability to access workplace and social supports.

Future 1: Corp Circles. This scenario explores a context in which extended employment benefits are portable and connected to the worker rather than the employer. In this scenario, governments take meaningful steps to address the shared threats associated with a growing skills gap and a growing gig economy. The scenario explores the different strategies that might emerge when employers are required to provide extended benefits to part-time, freelance and precarious workers.

Future 2: Freedom 27! This scenario contemplates a future in which a basic income might be provided to each Canadian. In this scenario, large employers chart a path to rising profits without the need for employees. Policy-makers play a key role when breakthroughs in automation threaten to collapse labour markets. This scenario explores the implications of a universal basic income for people and the planet.

Future 3: Last In, First Out. This scenario looks at a future in which benefits and accommodations are individually negotiated. This scenario explores what happens when the social safety net collapses and governments are unwilling or unable to intervene in meaningful ways. This scenario suggests what may break down and how cascading failures might interact. Lastly, this scenario explores the role of privilege in the labour market and how those who have the power to negotiate for themselves will be more likely to succeed, while those who rely on government-supported benefits or current labour laws will face more challenges.

The three scenarios offer distinct starting points for discussions and actions related to the working experiences of young adults in Canada living with a disability.

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Background

According to data from Canada, over six million people live with one or more disabilities, including those associated with physical, mental, emotional, cognitive, learning or sensory activity limitations. Of those, about two million are young adults between the ages of 18-35 years.

Persons living with a disability are constituently excluded from the labour market. Data from Statistics Canada shows that the employment rate of young persons living with a disability (ages 18-24 years: 32 per cent; 25-35 years: 54 per cent) is significantly lower than that of their counterparts without a disability (52 and 82 per cent, respectively). Young adults with a disability who are employed are more likely to report fewer work hours, lower income, lost productivity and greater barriers to career advancement than their peers without a disability. [2,3,4]

Studies consistently indicate that persons living with a disability are, compared to those without a disability, more likely to report having worse health outcomes, living below the poverty line, relying on income support, and having unmet health-care needs.[5] Promoting employment engagement represents a critical strategy to strengthening the pathways to better health and quality of life for persons with a disability.

The employment experiences of persons living with a disability will be shaped by changes emerging in the future of work. The future of work is a dynamic topic that encompasses a diverse set of forces that are expected to disrupt every industry, change working conditions, and impact job availability.[6,7,8,9] Studies on the future of work highlight several critical forces that are driving change. They include technological adoption (e.g. growing application of artificial intelligence, automation of job tasks, increased reliance on advanced digital technologies); sociodemographic shifts (e.g. aging workforce, urban growth); globalization (e.g. offshoring or outsourcing of jobs in both physical and virtual job settings); and ecological changes (e.g. climate change, green economic evolution).[10,11,12]

The current discourse on the future of work highlights new economic opportunities, including the creation of new occupations and demands for workers with advanced technical and soft job skills.[13] Other research highlights disadvantages that may emerge, including an erosion of work in standard employment arrangements and a rise in contingent employment (e.g. gig work), which may exacerbate employment challenges for persons living with a disability.

Recent studies by members of this research team indicate that the future of work may be inequitable.[14] Workers who have typically faced adverse working conditions, including persons living with a disability, are more likely to have their employment disrupted by changes in the future of work [15,16,17,18,19]

Given the scope of change and its ability to contribute to labour market inequities, the future of work may play a significant role in determining an individual's socioeconomic position, as well as their exposure to risk factors for physical and mental health issues related to work.[20,21]

It is unclear how persons living with a disability may be affected by positive developments and obstacles in the future of work. Of concern is the current lack of insights that can be used to develop policies and programs that are resilient to changes that may emerge within the context of a changing labour market.

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Objectives

Our multi-phase strategic foresight initiative aimed to develop scenarios that present various divergent stories of the future. The scenarios we built addressed two key objectives:

1. to examine how working life in Canada might change in the next seven years

2. to unpack the implications of labour market changes on the sustained employment of young adults with a disability and the availability and use of workplace supports and social policies.

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Methodology

To address the research objectives, Lahn & Co implemented a comprehensive scenario development methodology that draws from established and widely used tools and techniques in the field of strategic foresight. The approach builds upon the foundational work undertaken by IWH and is part of a larger strategic foresight initiative at the Institute on the future of work.

About the strategic foresight approach

Strategic foresight is a methodological approach that can generate evidence-based insights and practice implications oriented towards the future.[22] At its core, strategic foresight is a systematic and participatory process that draws on diverse disciplines, including systems, design and strategic thinking.[23,24,25,26]

Strategic foresight methods have been increasingly applied to diverse fields, including public policy, management, social development and public health, to support decision-making and the development of policies and programs that are resilient to potential future changes.[27,28,29]

In our strategic foresight study, evidence syntheses and qualitative research methods were integrated to identify signals of change and construct alternative future scenarios.[30,31] A STEEPV framework— which incorporates social, technological, economic, environmental, political and value changes — was used to identify and categorize indicators that could help inform our understanding of the range of factors that may characterize the future of work.

A primary aim of strategic foresight projects is not to propose one certain future scenario, but to recognize multiple alternative futures. This is critical to the design and proposal of future-proofed strategies (i.e. they contribute toward long-term preparedness and resilience). Ultimately, policies, programs and strategies that are resilient to, and withstand, future changes are those that are relevant to multiple alternative futures and not just to one view of the future — the latter being the approach taken in more traditional planning activities.

As is the case in our design of alternative scenarios of the future, conducting strategic foresight studies can be a creative exercise that is informed by evidence, even if the scenarios that are designed may not be probable or plausible. These studies have the benefit of informing strategic discussions on the development of policies and programs that are future-proofed. And they are most successful when diverse stakeholders, who have direct knowledge of the research problem, are included as co-creators in the development of alternative future scenarios.[32,33,34,35,36]

In the following sections, we describe the three-phase foresight process we used to create the alternative future scenarios. The three phases included identifying drivers and weak signals of change, holding engagement sessions, and crafting the scenario narratives.

Phase 1: Identifying drivers of change and weak signals

First, the team collected and synthesized information about potential ways in which the landscape of work in Canada could change. To do this, we identified both drivers of change and weak signals.

Drivers of change

In 2021, researchers at IWH conducted a comprehensive horizon scan of peer-reviewed articles, grey literature and other sources of evidence to identify and make sense of emerging directions (based on the STEEPV framework) related to the work landscape in Canada.[37] From this research, IWH produced the report *Fragmentation in the Future of Work*,[38,39] which outlined nine trends or patterns of change that are meaningful to the development of alternative scenarios of the future.

Drivers of change highlighted in the report included the digital transformation of the economy; artificial intelligence (AI) and machine learning-enhanced automation; AI-enabled human resource management systems; skill requirements for the future of work; globalization 4.0; climate change and the green economy; Gen Zs and the work environment; populism and the future of work; and external shocks to accelerate the changing nature of work.

The nine trends identified in the horizon scan reflected deeper drivers of change or system-wide dynamics that are almost certain to influence and impact the future on a global scale. Drivers of change may not be specifically related to the experiences of persons living with a disability, but they are expected to have an impact regardless of the other types and directions of change we experience in the coming years. To support further meaningful and manageable discussions, members of the research team selected three distinct drivers of change: AI/machine learning-enhanced automation, climate change and the green economy, and populism and the future of work. These three were chosen because they were distinct from each other and were best suited to facilitating manageable and meaningful discussions.

In this section, we describe these three key drivers of change and their potential to shape the future of work in Canada over the coming decade. We also describe **_starting points_** related to each of these drivers of change. These starting points provide the foundation from which each alternative scenario could emerge and help to anchor the reading of the three scenarios. The purpose of this section is not to provide a comprehensive review of the literature related to each driver of change. Rather, the aim is to provide the reader with background information that helps clarify the significant factors shaping change within each of the three scenarios.

Driver of Change 1: AI/machine learning-enhanced automation

Artificial intelligence (AI) is at the forefront of rapid and large-scale change in the working world.[40] Broadly, AI refers to the use of machines to solve problems traditionally requiring human intelligence, including detecting patterns, making judgments and optimizing processes.[41]

Examples of AI applications can be seen in almost every industry including, but not exclusive to, retail sales (e.g. chatbot customer service representatives), manufacturing (e.g. smart robots), transportation (e.g. autonomous vehicles), health care (e.g. cancer diagnostic platforms) and finance (e.g. automated fraud detection services).[42] A recent global survey of 2,395 large employers found that 48 per cent had already adopted AI within their companies.[43]

AI can impact work in several ways. It can contribute to the redistribution and reorganization of job tasks between human workers and machines, which may result in the displacement of workers in certain occupations.[44] Conversely, AI has the potential to augment tasks performed by human workers, thus freeing up time for high-value activities and contributing to improved job performance and productivity gains.[45] The growing use of AI can also result in the creation of new job opportunities, which could be beneficial for certain groups of workers.[46]

Starting Point I: Studies of large employers indicate that the COVID-19 pandemic has contributed to increased employer investments in AI to address productivity gaps amid lockdowns and remote work arrangements.

Driver of Change 2: Climate change and the green economy

The impact of human activity on the earth's ecosystem and weather patterns is also affecting working conditions and, potentially, the availability of jobs in the future. It may result in the displacement of workers, and damage to worksites and infrastructure.[47,48,49] On the other hand, interventions that address the impact of climate change on the economy and the growing green economy may also impact workers and workplaces by creating new job opportunities.

Studies highlight that climate change and related extreme weather events (e.g. wildfires, droughts) are anticipated to contribute to the forced migration of workers, disruption to workplaces, lost productivity, and increased risks to worker health and safety (e.g. due to infectious disease transmission, air pollution, hotter working conditions).[50,51,52] Those working in specific sectors (e.g. industrial services, agriculture, travel, tourism), geographic regions (e.g. coastal regions), or working conditions (e.g. outdoors) are especially susceptible to the effects of climate change and extreme weather events.

Vulnerable workers are more likely to be employed in occupations that are prone to job displacement as a result of climate change. They may also have less access to the social protections that would support employment interruptions resulting from extreme weather events.[53]

At the same time, as society shifts toward a green economy, new job opportunities may be produced in diverse sectors such as renewable energy, bioengineering and biodesign. A shift to a green economy could mean that certain industries (e.g. oil and gas) are disrupted as the economy turns away from carbon-based energy and moves towards renewable energy. In addition, some vulnerable groups of workers could be at risk of exclusion from new jobs that emerge in the green economy due to ongoing discrimination faced in the labour market and greater barriers to upskilling and reskilling.[54]

Starting Point II: Countries and corporations are increasingly setting meaningful emissions targets, but the transition to a green economy has been slow.

Starting Point III: Compared to older generations, current generations — both Gen Z and Millennials — prioritize the importance climate action in their personal actions, at their places of employment and from their elected officials.

Driver of Change 3: Populism and the future of work

In industrialized countries around the world, populism — a social and political movement — is on the rise. Populism can include an anti-establishment orientation, broad anti-elite policies, and an opposition to liberal economics and globalization. Populist sentiments can be held by those across the political spectrum.[55,56]

The growth in populist views has the potential to contribute to discrimination against workers based on their personal characteristics and, in turn, their exclusion from the labour market. For instance, some forms of populism may reject politics and policies that promote more inclusive communities and workplaces. These forms of populism tend to embrace a rhetoric that promotes fear of others and a rejection of authority. This tension will have implications for marginalized workers.

Of note, the growth of populism has been explained by a range of factors that also characterize the future of work, including globalization and the automation of work. These have resulted in the loss of jobs for workers in some sectors, which, in turn, has added to a growing sense of frustration and anxiety about the future and fueled populist sentiments.

On the other hand, workplaces are becoming more inclusive, diverse, accessible and socially responsible as social movements and new generational perspectives shift expectations of workplace cultures. Populist movements have the potential to counteract this trend towards greater workplace inclusion.

Starting Point IV: Young workers in Canada today are more diverse, and they are expecting governments and workplaces to adopt practices and policies that make work environments more welcoming to people with different backgrounds and abilities.

Starting Point V: A survey of Canadian workers found that those who were more likely to fear job loss because of automation or AI were significantly more likely to hold populist views.[57]

Weak signals of disruption

A weak signal is a piece of evidence that hints at an emerging change or disruption. Signals are often a one-off article, report, news item, blog or image that reflects some degree of divergence from the norm. These small indicators of a potential disruption or a change in direction are not typically widely distributed. They also tend not to have strong momentum and may not develop into broad or meaningful shifts. However, weak signals are important to capture because they can change the landscape if they do develop momentum and, as a result, have the potential to lead to more powerful and meaningful changes in the working world.

To prepare scenarios for this larger study, Lahn & Co scanned different sources of evidence using a semi-structured approach to identify potential weak signals that could be used to characterize different alternative scenarios that were not captured during the initial horizon scan conducted by IWH. Relevant weak signals are presented in each of the scenario narratives outlined in the later sections of this report.

Phase 2: Making sense of these changes

Two separate engagement sessions were held in the Fall of 2022 to inform the design of the scenarios and to complement the collection of the drivers of change and weak signals. All engagement sessions were conducted online. Using a virtual whiteboard, members of the research team led participants through a series of collaborative activities that aimed at soliciting insights to inform the design of future-of-work scenarios. The virtual whiteboard was also used as a tool to capture discussions, using the text box feature and noting functions. All engagement session notes were synthesized by Lahn & Co, and key themes were integrated into the scenario narrative development.

Procedures for this project were reviewed and cleared by the University of Toronto Research Ethics Board (REB# 38706). To maintain the confidentiality of participants, the insights obtained from each engagement session were synthesized by members of the research team and integrated into the design of scenarios in aggregate form.

Engagement Session #1 – Interpreting drivers of change through lived experiences

The first engagement session was held on September 26, 2022. The goal of the session was to explore implications of change by drawing on lived experience, knowledge and expertise. All participants were young adults living with a disability between the ages of 18 and 35 years. They ranged in terms of their sex/gender, age (within the 18-35 range), disability type and employment status. A total of 11 participants were recruited by members of the research team.

In advance of the session, the research team had already selected three drivers of change from the horizon scan to focus discussions and ensure meaningful engagement. As mentioned, the chosen drivers of change included AI/machine learning-enhanced automation, climate change and the green economy, and populism and the future of work. These three were chosen because they maximized differences across the STEEPV framework.

A futures wheel was used to facilitate discussions.[58] A futures wheel depicts a series of relationships among different factors to identify possible implications. In this case, the tool was used to explore the way changes might affect the employment of persons living with a disability, including potential issues, challenges and opportunities.

Participants were split into small breakout groups, and each group was asked to develop a futures wheel. Each group was presented with one of the three drivers of change and asked a series of '*if*' and '*then*' questions to encourage a discussion on its implications for the employment of persons living with a disability.

Participants were then asked to discuss the most salient changes to the working world. Provocative probes were included, which encouraged participants to challenge their perspectives and to identify and discuss the relationships between different themes that emerged from conversations related to the driver of change. Last, participants were asked to discuss ways in which the primary and secondary implications of the change, and their relationships to each other, could be addressed by service providers and employers.

All group discussions were captured using the virtual whiteboard, with each group creating a futures wheel consisting of first-, second- and third-order impacts related to their driver of change and corresponding solutions (see **Figure 1**). The data and insights generated by these tools were used by the meeting facilitator to inform the questions posed to participants at the second engagement session. They were also integrated into the design of the final set of scenarios.

Figure 1. Example futures wheel from engagement sessions with young persons living with a disability depicting first-, second- and third-level impacts

Engagement Session #2 – Building scenario logic through subject-matter expertise

A second engagement session was held on October 3, 2022, with 22 subject-matter experts. Subject-matter experts were identified by members of our research team. They represented leadership in federal and provincial governments, employment services agencies, advocacy groups and academia. Some participants also identified as having lived experience of a disability.

The second engagement session used the Alternative Futures Framework, which provides a methodology to classify signals of change and their impact on the future of work using one of four generic future archetypes. These archetypes include:

- **Growth** —in which current trends continue along an upward path, with economic growth as the central dynamic
- **Constraint** —in which people and institutions make sacrifices for the common good in the face of a shared challenge
- **Transformation** — in which new insights, technologies or social shifts make something that seems implausible today suddenly possible
- **Collapse** — in which cascading systems failures (often social and/or environmental) are in motion.

Participants were split into breakout groups and assigned one of the four generic future archetypes. They were also given a description of their archetype, as well as a list of weak signals related to that archetype.

Each group selected up to four signals to explore. Using those signals and the archetype description, they then discussed a series of world-building, situational and impact prompts, and captured their discussion on a whiteboard. The prompts included examining what Canada might look like in year 2030 if those changes continued or accelerated (world building); describing how changes might interact with the scenario (situation); and discussing the impacts of the changes for policy-makers, adults with a disability and employers (impacts). Participants were asked to be creative and describe futures from a systems perspective, while also considering different contexts and alternative perspectives.

Phase 3: Crafting scenarios

Scenarios are narratives describing the ways things might meaningfully change in the future and the dynamics of that change. Scenarios socialize possibilities and support conversations regarding the future. They also act as provocations that allow us to explore what could happen in ways that matter.

Since there is no data about the future, scenarios do not aim to predict or generate a certain future. Instead, the design of scenarios draws from identified drivers of change and weak signals as indicators of possible disruptions and critical uncertainties. Scenarios are also informed by expert insights.

The alternative scenario narratives in this report were initially generated by Lahn & Co. It used the alternative futures approach developed by the Institute for the Future and worked with various inputs from the two engagement sessions, the horizon scan and the review of weak signals to craft the multiple scenarios. The scenarios were then edited and refined by IWH prior to publishing.

Project inputs were integrated into the development of the internal logic supporting each alternative future scenario, including a description of the future that was created and the plausible catalysts for change. Also included in each scenario were the mindsets and motivations of various stakeholders within each scenario, as well as a broader description of the values and dilemmas that might underpin each alternative future scenario.

The process of scenario development involved working concurrently across all the alternative scenario archetypes to develop scenarios that were distinct from one another in meaningful ways. Each scenario's narrative arc offers a story of change that incorporates the scenario's archetype. Each scenario narrative provides a description of its consequences to individuals, workplaces and communities and corresponding reactions. Finally, a personal, local, national and global lens was applied during the development of each scenarios to provide different perspectives.
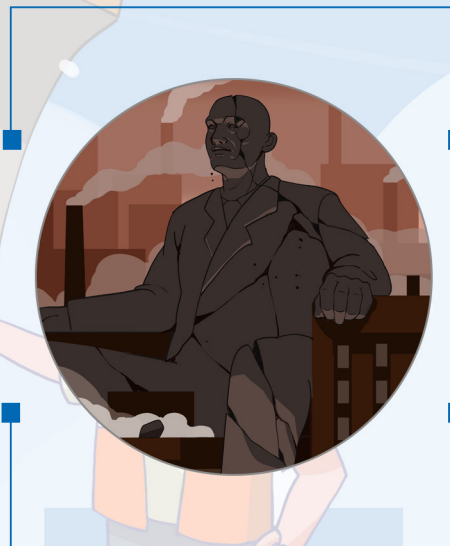
Future 1: Corp Circles
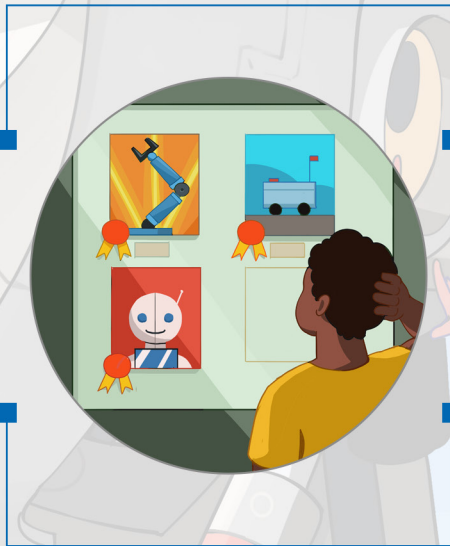
Future 2: Freedom 27!

Future 3: Last In, First Out

4

The Three Scenarios

The following section describes the scenarios that were designed through the foresight approach outlined above. Each scenario illustrates a change dynamic that differs according to distinguishing characteristics. These include the nature of governance, the economic landscape, climate-related changes, the nature of work, the overarching societal mindset and values, and the implications of all these for persons living with a disability.

The final scenarios are rooted in three of the four archetypes: constraint, transformation and collapse. Of note, findings from the engagement session revealed that the growth and collapse archetypes generated similar themes and implications among participants with subject-matter expertise. As a result, a growth scenario was not included in the final set of scenarios.

Each scenario represents a seven-year time horizon. Also, while the scenarios are contextualized within the Canadian context, they are relevant to other industrialized contexts.

It is important to note that change dynamics play out inequitably in each scenario; not every person, group or institution is impacted the same way at the same time. Also, the pace of change within a complex system varies, and the variations depend on social location, income and power within society.

Also, as mentioned in earlier sections of this report, the scenarios are based on a combination of evidence-based and creatively generated information and may not necessarily be the most probable or plausible. However, the scenarios are presented as primers for further exploration, discussion and planning about the future of work, from now to 2030.

Each scenario described in the following sections includes:

• an overview of the scenario's characteristics
• a future scenario that evolves over seven years (2023 - 2030)
• a description of related weak signals (in footnotes)
• a set of strategic questions.

Future 1: Corp Circles (constraint archetype)

Distinguishing characteristics

Nature of governance	Governments are active. They offer incentives, impose regulations, and launch and administer new social programs.
Economy	Worker shortages and skills gaps stall the flow of goods and services.
Climate	Circular economies within industries reduce waste and up-cycle resources.
Work	Work is increasingly automated. Mainstream work is structured around tasks or temporary gigs.
Mindset / values	People with shared interests collaborate across the working population.
Implications for persons living with a disability	Worker shortages create opportunities for people who have previously been overlooked or excluded from the labour market. The flexibility of gig work is helpful to some.

Overview

This Corp Circles scenario explores a context in which extended benefits are portable and connected to the worker rather than the employer. In this scenario, governments take meaningful steps to address the shared threats associated with a growing skills gap and the gig economy. It explores the different strategies that might emerge when employers are required to provide extended benefits to part-time, freelance and precarious workers.

Narrative

As the workforce digitizes, a serious job skills gap emerges among the available workforce. All industries in the Canadian economy are affected, from health care to finance, from creative sectors to retail and hospitality. For example, fast food restaurants are staffed by engineers who work online and remotely operate the robotic fry cookers and burger flippers. And while managers within different industries still require interpersonal skills, they are now required to manage a team of both robots and human colleagues. Accordingly, managers now require STEM (science, technology, engineering, math) experience, as well as people-management skills.

Skilling up is most daunting and expensive for entry-level and junior workers, and for employers trying to train the workforce to meet the needs of this new economy. Those who don't already have the credentials for digital roles are forced to take short-term and freelance work to make ends meet. Workers who possess in-demand job skills sometimes find full-time work undesirable because they are so highly sought after in the labour market that they can choose from a range of high-paying contracts. Workers more broadly evaluate labour market characteristics and available job opportunities and decide that full-time permanent work arrangements don't align with their working values and goals.

This task-oriented gig work leaves many without the extended benefits that come with stable employment. Extended health-care, paid sick leave, insurance, and public and private pension contributions are out of reach for less-privileged contract workers. In a vicious cycle, it is the lack of benefits that makes it impossible for some vulnerable workers to take on full-time roles.

A skills gap and general lack of workers stalls the economy

Tired of training new employees only to lose them to competitors or when they choose to pursue greater work-life balance, large employers try various means to promote productivity and address turnover. Employers reach out to people who have been previously marginalized or overlooked from employment opportunities. Some even ask new hires to sign clauses that bind them to the employer and require them to pay back their employer for onboarding and training expenses.[59] To reduce mobility, newly hired employees are penalized for leaving a job.

People who receive government-provided income, social supports and health benefits are forced to assess the complex trade-offs demanded by these new arrangements and are charged high levies for leaving a job due to personal or health changes. As a result, these new employer tactics chase away as many workers as they recruit. At last, corporations demand financial support and large-scale government policy changes to address the growing worker and skills gaps.

Employers are required to provide benefits to contract workers

Policy-makers respond to corporate requests out of fear of manufacturing delays and disruptions to global trade. They rapidly introduce measures to stabilize employment and support up-skilling.

A key initiative developed by policy-makers requires employers to pay into a new publicly administered portable benefits program[60] for contract, part-time and precarious workers. The measure is introduced to encourage non-workers to join the labour market, making it easier for those with government benefits to join the workforce, and to support workers while they re-skill to meet the changing needs of employers.

The policy response is rapidly designed, leaving the most vulnerable groups excluded from accessing supports. Advocacy groups struggle to lobby for a better, more inclusive policy design. Over time, the new portable benefits program is refined and touted as a key policy win for the governing party. Though the new program comes with trade-offs, many people enjoy greater flexibility, opportunities for financial security, and meaningful engagement in the workforce.

Employers set aside differences and form networks to meet their shared needs

An unintended consequence emerges; the portable government benefit enables workers to move around in the labour market. This mobility is a perk for individual workers but introduces new expenses for employers.

As an alternative to the government-sponsored plan, a private business group tests a model that involves setting up training and employment networks. Employers who opt into a network begin to pool resources and provide health benefits to part-time and contract workers within the network, referred to as a Corp Circle. These Corp Circles lead to further collaboration among large employers, who start creating joint infrastructures for hiring, training and sharing employees across affiliated companies. New-hires sign on to a Corp Circle, which puts up hurdles and imposes penalties for seeking employment outside of the network of affiliated companies.

The training, mobility and career advancement opportunities within a network appeal to many young workers and draw some reluctant people into the workforce. Inspired by the emerging Corp Circle model, social-purpose enterprises and worker-centred co-ops[61] develop parallel networks of their own, which are more inclusive and appeal to workers from diverse backgrounds.

Corp Circle model matures

Corp Circles expand as they compete to bring new affiliates into their networks. Large and small employers in diverse markets, as well as educational and other broader sector institutions, begin to join networks. Technology companies that create business-solutions software and digital human resources platforms bid to be the sole provider within a network. Success paves the way for new, mutually beneficial initiatives: the conglomerates expand into power generation, emergency services, waste-to-resource networks[62] and live-work office spaces. In 2029, the first physical Corp Circle town incorporates.

Workers are contracted into a Corp Circle when they accept a new role. Networked workers enjoy high job mobility and engagement, but increasingly notice limits in choice that affect diverse aspects of their lives. Where to work, live, find a health provider, shop and spend leisure time all start to be shaped by the expanding reach of the conglomerates. Citing their successes and leveraging their new cross-sector reach, Corp Circle lobbyists gain power within the policy sphere and actively advocate for changes to labour regulations. The ultimate policy goal of these lobbyists is to create a situation in which the Corp Circles can self-regulate within their own insular labour market.
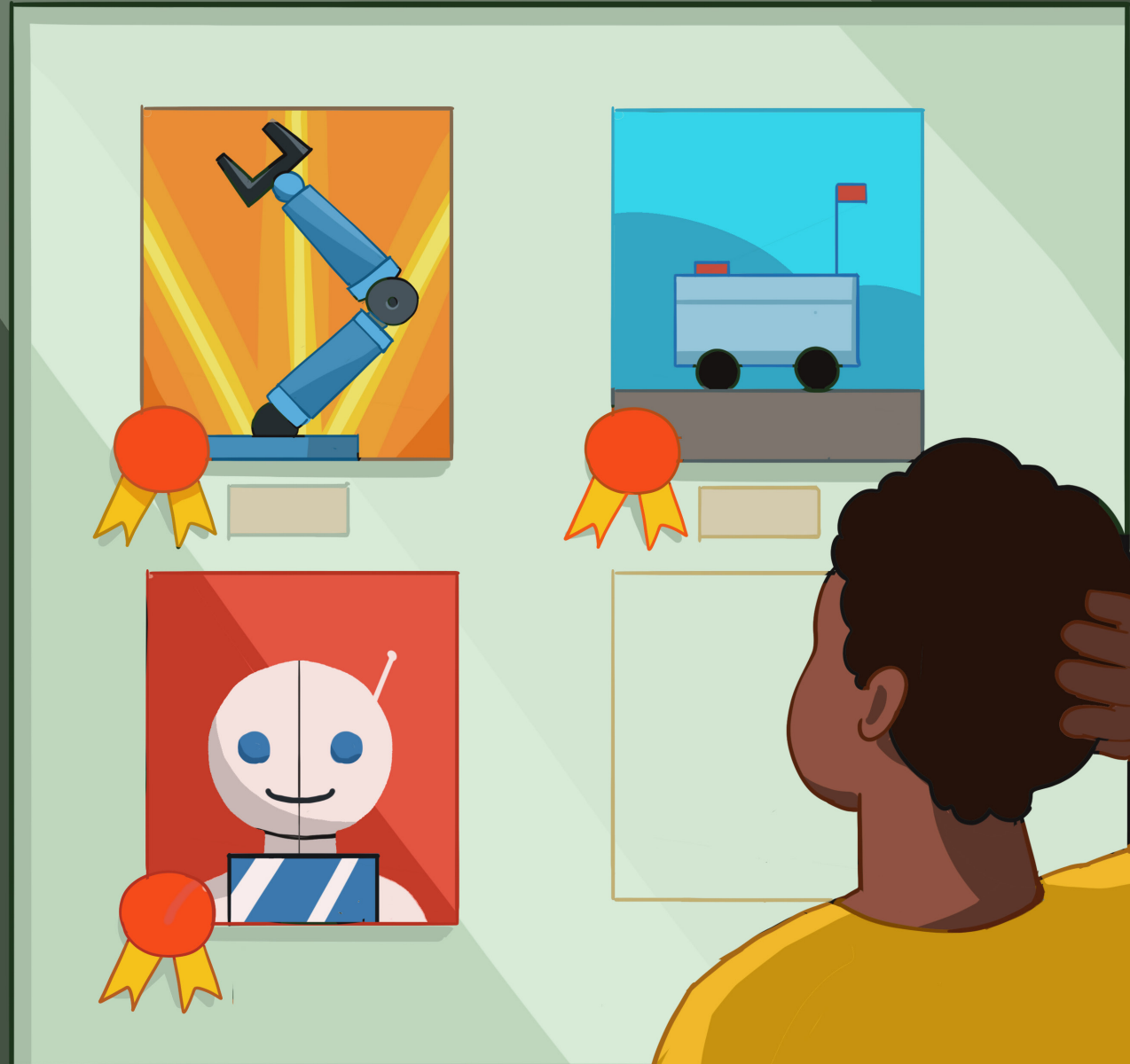
Future 2: Freedom 27! (transformation archetype)

Distinguishing characteristics

Nature of governance	Governments mobilize employment initiatives, climate change responses and social benefits programs on a nation-wide scale.
Economy	Highly automated workplaces mean unemployment is escalating. Corporate profits are only loosely tied to employee productivity.
Climate	Energy demands increase exponentially. Meeting climate targets by 2030 is prioritized.
Work	Work is done in sprints and by projects. Work is only loosely tied to income and sense of purpose.
Mindset / values	People believe in dignity for all and in doing work that matters.
Implications for persons living with a disability	Public programs promise new and fulfilling opportunities. Basic needs are met with dignity.

Overview

The Freedom 27! scenario explores a future in which a basic income is provided to each Canadian. In this narrative, thanks to AI and other new forms of automation, large employers chart a path to rising profits without the need for employees. Policy-makers play a key role when breakthroughs in automation and use of AI threaten to collapse labour markets. The response is the deployment of a universal basic income, which is both necessary and transformative — for people and the planet.

Narrative

Automation and the algorithms underpinning AI are rising forces in the economy, resulting in mass layoffs across most industries. Human workers in technology, transportation and shipping, farming, construction, hospitality, health care and the arts are increasingly being replaced by digital systems that can replicate human behaviour, physical performance and problem-solving. To avoid an economic depression, governments find ways to provide income support[63] to the population.

The energy demanded to keep this automated economy running is increasing emissions and taking the country even further away from its climate commitments. As a result, large-scale climate mitigation and adaptation strategies once dismissed as unrealistic are now considered worthwhile and necessary to address a spiraling climate crisis. New climate targets also create new occupations and job opportunities, offering meaningful roles to the unemployed while also delivering on net-zero carbon targets.

Employers accelerate their automation plans

Within the context of an automated working world, employers are easily frustrated with human employees who require sick time or request job accommodations. Employers are also aware that their human employees are eating up corporate profits, as they require benefit contributions that digital systems do not require. Employers aim to drastically reduce their reliance on human workers altogether, and many accelerate the automation plans they set in motion during the pandemic. Workers, ironically, refer to this strategy as Freedom 27! — in recognition of the year 2027 as the tipping point when more economic value is delivered by intelligent robots than their human colleagues.

With mass layoffs already underway in some sectors and looming as a threat in others, policy-makers run a pilot program to incentivize heavily automated employers to move to four-day work weeks for their human workers,[64] in part by topping up benefits for workers who are employed in part-time contracts. The pilot program is promising, and the pace of change so rapid, that the offer to top up benefits is quickly expanded to all employers.

Concurrently, governments mobilize a massive green-jobs initiative[65] in response to the growing emissions generated by workplaces increasingly relying on machines. One green-job initiative includes retrofitting almost one million buildings each year for the next six years across the country. Governments pour money into community-based employment service organizations that can train, coordinate, and manage the people needed for these green-jobs initiatives, resulting in a growing number of workers participating in the green economy.

Though some of the green work could be automated, the public works program is designed to hire and train workers en masse while helping the country meet its climate commitments. Many people who had previously been overlooked by employers or marginalized in the workforce now see opportunities to contribute. There is some initial jostling, as workers who had been displaced by automated machines compete with vulnerable workers (e.g. people who are chronically underemployed, young adults fresh out of school) for the first green jobs. Employment service providers are required to navigate this complex space to get the work done equitably and on schedule.

Within an automated and green economy, employers and policy-makers pilot a transition to a three-day work week, in which jobs are shared by people who work half-time each week. An economic evaluation of the costs and benefits to employers and governments determines that the pilot has been successful. More workers are employed, and employers are able to meet their staffing needs. Moving to a three-day work week is determined a sound policy decision.

Three-day work week becomes the norm

Citing the success of the pilot, corporate employers lobby for incentives that would allow them to move all employees to a three-day work week. The three-day work week and job-sharing strategy is complex and messy at first. Three-day shifts are not synchronized or standardized across the economy. Workers in education, healthcare, childcare, retail and the trades don't see transformation at the same pace. For some workers, it feels like full-time work for part-time pay, as salaries drop but employer production expectations stay high.

Worried about job security or seeing an opportunity, many workers take on more than one job and end up working six days a week (more than they had in the past). Other workers relish the extra free time and use it to take part in more leisure and physical activities. Yet other workers face challenges managing their personal responsibilities, including the demands of childcare and caregiving for their adult relatives.

Over time, standards develop, and childcare and schools adapt to the three-day work week. As the new work format takes hold, many people relocate. The hospitality industry keeps busy meeting the needs of super commuters who travel long distances to do their jobs in a "work sprint." Emerging leisure industries thrive, and cities realign their culture and commerce for extended weekends. Some cities pilot small basic-income initiatives[66] for workers in the hardest hit local industries[67] and sectors.

Universal basic income hits the mainstream

In 2025, a major political party wins power with universal basic income (UBI) at the core of its policy platform. The new UBI is celebrated as a strategy to offer income support while also complementing the green public works initiatives, improving mental and physical wellbeing, reducing income inequity, strengthening social bonds, and maintaining living standards, quality of life, well-being and productivity. Based on global examples, precarious artists and entrepreneurs of all types are expected to thrive now that they have access to an adequate social safety net.

But not everyone is happy. In some places, UBI is blamed for growing shortages of health-care and other support workers by creating a disincentive to work in difficult and strenuous occupations. Public debate about who is included in — or deserving of — a basic income is divisive. Disagreements arise about the thresholds for inclusion in the program, including citizenship status, years in the workforce, age, geographic location, and history with existing social benefits and income supports. The debates reignite sentiments that some marginalized groups contribute to the mass unemployment of others.

Politicians get nervous, and some strongly consider invoking a direct-democracy[68] approach in which decisions about policy changes are made by referendum. This strategy allows policy leaders to distance themselves from potentially unpopular decisions related to UBI and the economy.

Some politicians question whether UBI is at the core of workers leaving the labour market and resulting in jobs in the green economy going unfilled. UBI is promising, but its launch is triggering negative unintended consequences that are challenging. Policy-makers and politicians are facing a new frontier in 21st century governance, one that allows for and even embraces making policy decisions without a perfect set of data on hand about their potential positive and negative consequences.

Future 3: Last In, First Out (collapse archetype)

Distinguishing characteristics

Nature of governance	Traditional governments are overwhelmed by cascading system failures. Oligarchies form around those with power and influence.
Economy	Economic uncertainty affects most people. Resources are concentrated among a few privileged members of the population.
Climate	Infrastructure and institutions are not resilient in the face of extreme weather events and natural disasters.
Work	Unemployment is high. Competition for jobs among potential workers is fierce, as is the competition among corporations for employees with the right skills. Individuals get what they can negotiate.
Mindset / values	People look out for their own interests and collaborate with those with whom they feel kinship or alliance.
Implications for persons living with a disability	It is risky to seek accommodations. Those last into the workforce may be the first forced out.

Overview

This urban-focused scenario looks at a future in which navigation through the labour market and accessibility to social benefits and job accommodations are individually negotiated. It explores what happens when the safety net collapses and governments are unwilling or unable to intervene in meaningful ways. This scenario describes a cascading set of failures that interact with one another. Growing inequities characterize this scenario. Those with power and privilege or have the skills or ability to negotiate for themselves are most likely to succeed. Those who rely on government-supported benefits and minimum standards set out in labour laws may not.

Narrative

Urban office towers — once vibrant centres of economic and social networks — are abandoned as working remotely becomes the norm. Governments at all levels are overwhelmed and paralyzed by the cascading failures of formerly stable social support systems, including the collapse of the policies and programs underpinning the social safety net. In the absence of meaningful policy planning and government action, individuals are left on their own to negotiate for their labour rights and benefits. Those who are already successful and have access to powerful connections grow even more successful.

Resentful workers are forced back to physical offices

Exasperated with the double overhead associated with hybrid work — managing a remote staff while also maintaining office buildings — large employers attempt to coax workers back to physical office spaces with incentives like onsite daycare, pet care stipends, fleet fuel discounts and catered meals. With little success, employers pivot to other tactics, including implementing policies requiring office workers to return to working onsite.

Workers begrudgingly return[69] but resent giving up the flexibility and other gains they acquired while working remotely. For some workers, flexibility and remote work are perks. For others, they are essential to maintaining secure employment. Those who require job accommodations like flexible work schedules, physical workspace modifications and assistive technologies feel the return to offices will exclude them once again from the working world after several years of fitting into the norms of remote work.

Many groups of workers now face having to disclose the reason for their support needs and must navigate requesting job accommodations with an employer for the first time. Some workers successfully make their case for not returning to the office.

Concerningly, employers increasingly allocate remote work opportunities to workers in countries where labour is cheaper and local labour laws are less stringent. This off-shoring of work negatively affects the availability of remote job opportunities for domestic workers, especially those who may not have in-demand job skills.

Office work collapses

The combination of the offshoring of work and the resistance of workers to return to work leaves physical workspaces unused. As leases expire, some large employers abandon their office towers permanently, and knowledge work shifts back to remote and work-from-home arrangements. The shifting status quo is disorienting for many workers who have developed schedules and infrastructure to support their ability to work.

The move back to the work-from-home model for office workers has a profound impact on the economy, and large and small businesses alike must adjust to the new normal. Some small businesses that serve the office tower community (e.g. dry cleaners, barber shops, caterers, cleaning companies) close for good, throwing many service and retail employees out of work. Large employers, forced to reduce overhead, increase the amount of work they send off-shore,[70] casting many more local people out of jobs.

The move to remote work means workers across a range of industries and occupations turn to international gig marketplaces, where they can bid for jobs from across the world. Compliance with local labour laws is limited at best on these off-shore platforms, and workers have little say in their working conditions. Many are required to work unpredictable hours across different time zones. Many are also digitally surveilled and report violations of their privacy[71] by their employers, including the use of reputation monitoring.[72]

Even in the local economy, compliance with human resource and tax legislation becomes inconsistent for lower wage earners and precarious workers, for whom losing jobs to automation, off-shoring or both is an overwhelming threat. For someone with workplace support needs, asking for accommodations or reminding employers of their legal obligations is risky when they are so easy to replace. The marketplace is global, and anyone — or any robot — can fill the shoes of an individual human employee.

New values take hold in the corporate world. Efficiency is paramount and becomes the primary consideration in job performance and human resource decisions. Workers are monitored and managed by bossware[73] — AI surveillance and management software that tracks productivity. Employers increasingly replace their human workers with robots or even other human workers who show themselves to be more efficient. The market is flooded with job seekers, and the competition for low-wage work increases.

Vulnerable workers such as immigrants are fast-tracked by the government into certain career paths to fill current job gaps, forcing them into work that will likely be obsolete in the future and, ultimately, contributing to growing unemployment rates. In an employers' market, individuals willing and able to work in low quality, unregulated, unsafe or unprotected situations are able to obtain employment contracts. Those who need or request accommodations find themselves without work.

Remote workers overtake outer communities and unemployed flow into city core

As the urban core is increasingly deserted, cities lose multiple revenue streams such as transit fees, parking revenues, development fees, property taxes and road tolls. Available budgets for social services decline. However, police budgets soar as violence and mental health crises rise. Swamped by dropping revenue streams, and fighting fires on multiple fronts, governments fall behind on legislation, regulation, policy updates and compliance efforts. The most disadvantaged groups are marginalized further.

As remote knowledge workers relocate outside cities, inflation hits formerly affordable suburban areas. Priced out and displaced, low-wage workers and unemployed people scrounge for spaces downtown. Disparities grow between well-resourced people and communities and disadvantaged groups. Populism and protectionism[74] form geographic and social walls around pockets of like-minded people with similar economic means. Physical barriers start to appear to reinforce these deepening divisions, including the growth of gated communities. Smaller municipalities and suburbs look for ways around existing tax legislation to keep their revenues within their own communities, schools and health systems.

Over time, informal communities also form in downtown commercial spaces. Vacant office buildings, designed to meet earlier accessibility standards, become a viable housing option for seniors, people with small children, and those with disabilities. Seeing an opportunity, landlords begin to offer office spaces as apartment rentals. Forward-thinking cities find new revenue mechanisms in these towers. Informal economies begin to develop, as people find ways to provide for themselves and their neighbours.

Gen Z entrepreneurs are better prepared than most, having maintained diverse side hustles from an early age. A growing number of entrepreneurs and start-ups in power generation, agriculture, childcare, eldercare, schooling, food services and construction begin to thrive at the local level, creating opportunities for urban recovery.

As the cascading failures unfold, and without having put checks and balances into place beforehand, policy-makers have few tools to influence the direction and pace of change.

5

Conclusion

Persons living with a disability consistently face exclusion from the labour market. The changing labour market has the potential to create new obstacles to sustained and secure employment that may further marginalize workers living with a disability. The future of work also has the potential to create opportunities for workers living with a disability, especially young adults in the early stages of their career. There is a need to develop strategies that are resilient to emerging employment conditions. To support the process of resilient strategy development, we designed alternative future-of-work scenarios — a tool that can inform discussions on how the changing nature of work may impact young adults living with a disability.

The future of work has yet to be realized, and we have no evidence to confirm how the working world will look over the next decade. Using a strategic foresight approach, we created three unique narratives describing alternative futures of the working world. Each alternative future is shaped by different drivers of change and weak signals across the STEEPV categories, and each is informed by the insights of persons with lived experience of a disability who have diverse subject-matter experiences. Each scenario describes different changes to the working conditions to which people living with a disability are exposed.

The scenarios we developed are titled Crop Circles, Freedom 27! and Last in, First Out, which represent the constrain, transformation and collapse alternative futures archetypes, respectively. Each scenario offers a different picture of the future of work, including varying change dynamics and unique social, economic, political and cultural circumstances that could emerge over the next seven years. Each scenario also describes different mechanisms within the labour market that could contribute to inequities.

The scenarios outlined in this report are not meant to be predictive. Rather, their main goal is to foster strategic discussions on policy and programmatic developments related to the inclusive employment of young persons living with a disability. We encourage decision-makers and persons with lived experience of a disability to view the scenarios as a practical tool to encourage speculative conversations and generate solutions that are resilient to potential changes in the future of work. Using the alternative futures, a series of strategic questions can be asked to support the inclusive employment of persons living with a disability (see **Table 1**)

Table 1. Strategic questions to build resilient future scenarios

- What challenges and opportunities are raised in each scenario that are relevant to the inclusive employment of persons living with a disability?
- What does each scenario have in common with the others in terms of challenges and opportunities for young adults living with a disability?
- When considering the needs of persons living with a disability, what would well-designed strategies look like within each alternative future?
- What indicators suggest the likelihood of elements within each scenario coming true?
- Considering the long-term goals of your stakeholder group (i.e. the desired future), what near-term and longer-term actions would help achieve this desired future?
- What actions would likely succeed in more than one of the future scenarios to help build resilience in the face of whatever the future holds?

A resilient strategy is one that can be successful across multiple possible futures, without triggering significant problems in any of the scenarios. By using these alternative scenarios, stakeholders supporting the inclusive employment of persons living with a disability can take steps now towards future-proofing their programs and policies to ensure that they are resilient to as many futures as possible.

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