



# TOTAL WORKFORCE INDEX™

2021 GLOBAL ANALYSIS



Talent  
Solutions  
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## About the Total Workforce Index (TWI)

For eight years, the Total Workforce Index has measured the relative ease of sourcing, hiring and retaining contingent and permanent workers. It's the only index of its kind to analyze over 200 factors across 75 competing labor markets, providing a comprehensive and comparative view of four key categories: **WORKFORCE SUPPLY**, **COST EFFICIENCY**, **REGULATION** and **WORKFORCE PRODUCTIVITY**.

This paper takes a closer look at the macro-level TWI data to identify market characteristics of **Mature**, **Emerging** and **Incubator** markets. It looks specifically at **opportunities for investments in three key growth sectors: Digital Services, Advanced Manufacturing and Clean Energy**. A series of three Spotlight Reports will be published over the coming months to provide additional insights and practical strategies to secure and retain the talent organizations need to grow.

Learn more and explore the markets and rankings at [www.totalworkforceindex.com](http://www.totalworkforceindex.com).



# Executive Summary

Organizations are aggressively pursuing growth opportunities during the tightest labor market in 80 years. ManpowerGroup’s Q4 2021 Employment Outlook Survey confirms hiring intentions are at their highest since before the pandemic. Meanwhile, 69% of employers globally say they are having difficulty filling roles due to a **lack of skilled talent**. This is running at a 15-year high.

The survey data suggests it has never been more difficult to attract, activate and retain talent that can fuel growth.

Hiring challenges are acute across many industries and job types. However, a particular threat to competitiveness – both for individual organizations and economies – is the **lack of “growth talent.”** Growth talent offer competencies that expand digital transformation, accelerate speed to market and deepen product or service personalization.

Companies using the Total Workforce Index to optimize workforce investments and access needed skills enjoy a vital edge in the race for growth talent. This includes the ability to see around corners and focus short-, medium- and long-term investments in labor markets, sectors and skill sets with the most potential to shape the post-pandemic world.

## Business Challenges Most Impacted By Growth Talent



### Digitization of Business Models or Processes

Digital transformation and automation of routine tasks are escalating demand for skill sets related to areas such as robotic process automation and information security, as well as greater digital literacy across workforces.



### Speed-to-Market and Operating Agility

In a rapidly evolving, innovation-driven economy, the ability to compress time-to-market depends on access to a wide range of skills – everything from API engineering and sales acceleration to product and project management.



### Personalization of Products and Services

Companies that can meet consumers’ evolving expectations for more personalized experiences are better positioned to fast-track growth. This requires high-level, hard-to-find information and analytics capabilities that enable organizations to convert data into meaningful consumer engagement.

# Labor Market Opportunities

This year's Total Workforce Index provides clarity amid the wall of sound surrounding the "Great Resurgence," the "Great Resignation" and the "Great Reawakening." **Below the headlines, TWI data and insights reveal three key labor market opportunities.**

*"New rules apply in the 'never normal': winning growth talent requires employers to refocus on where and how they source workers, whilst defining a new trust-based social contract and placing learning at the core of the post-pandemic employer value proposition."*

- Grantley Morgan, Global Practice Lead and Vice President, Talent Solutions Consulting

## Three Key Labor Market Opportunities

### 1. Learning Is Emerging As A Core Requirement,



and the opportunity workers have to learn new skills and acquire new knowledge based on existing infrastructure and education levels presents critical market opportunities

### 2. Wage Inflation In Mature Labor Markets Can Be Hedged



by making the right bets on Incubator markets

### 3. Contingent Labor Is Now An Essential Sourcing Channel

as skilled workers shift to more flexible work models



# Labor Market Types

Differentiating and diversifying workforce strategies to access the right combination of skills, workforce mix and labor markets has never been more important. Whether an organization's strategy shapes retention and development of existing talent or plots optimal pathways to new sources of talent, data from the Total Workforce Index can de-risk workforces across the dimensions of Workforce Supply, Cost Efficiency, Regulation and Productivity. **Further analysis of the TWI categories reveals three types of labor markets, each with strengths and weaknesses.**

## Three Labor Market Types Revealed

### + 1. Mature markets:

These 20 markets are home to the largest contingents of growth talent (average 40% skilled workers) and have infrastructures to support upskilling and reskilling; however, these markets are also exposed to wage inflation.

### 🔄 2. Incubator markets:

There are 16 high-potential markets for Digital Services, Advanced Manufacturing and Clean Energy technologies; that provide an opportunity to balance skilled labor with cost competitiveness.

↑ **3. Emerging markets:** These 31 markets tend to have a rising Gen Z/millennial workforce (50% or greater share of total labor pool) but a shortage of skilled talent due to low rates of tertiary education; these markets require long-term investments.

### EXAMPLE LABOR MARKETS BY TYPE

+ Mature	🔄 Incubator	↑ Emerging
Canada	Austria	Brazil
Denmark	Czech Republic	Colombia
Estonia	Portugal	India
Germany	South Korea	Indonesia
United States	Spain	Mexico
United Kingdom	Taiwan	Philippines

*Note there is some overlap between Incubator and Mature markets as Clean Energy Incubators are often Mature markets. This is covered in more detail under [Theme 2 on pages 10-11](#).*

## The Go-To Intelligence Source

Optimal market selections vary by industry and a company’s unique business objectives. The Total Workforce Index provides the data companies need to inform critical business decision-making. It has become a go-to intelligence source that has proven to be a difference-maker in a company’s ability to execute growth strategies.

### FACTORS INFLUENCING OPTIMAL MARKET SELECTION

This chart contains a sample of TWI market factors and how they have historically compared across the three different market types.

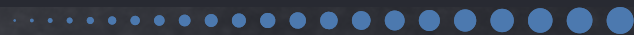
		2019	2020	2021	YOY CHANGE	YOY % CHANGE
Average monthly wage (wages in USD)	+ Mature	\$3,874	\$3,943	\$4,374	\$431	11
	↻ Incubator	\$2,291	\$2,337	\$2,388	\$51	2
	↑ Emerging	\$883	\$767	\$765	-\$2	0
% of skilled workforce	+ Mature	48	48	48	0	0
	↻ Incubator	36	36	34	-2	-6
	↑ Emerging	20	20	20	0	0
% of non-skilled workforce	+ Mature	8	8	8	0	0
	↻ Incubator	11	11	11	0	0
	↑ Emerging	22	22	22	0	0
% of contingent workforce (skilled)	+ Mature	48	48	48	0	0
	↻ Incubator	36	36	34	-2	-6
	↑ Emerging	21	20	20	0	0
Welcoming countries* ranking (1 is more open) <small>*refers to ease of travel without a visa</small>	+ Mature	54	54	67	-13	-24
	↻ Incubator	51	52	66	-14	-27
	↑ Emerging	44	53	50	3	+6



## Key Opportunities

To compete for growth talent, organizations should leverage these opportunities to ensure they have the right workforce to accelerate digital transformation, speed to market and personalization of products and services.

*“It’s time for all employers to reframe their thinking on minimum qualifications and invest in skills training or else they’re at risk for missing out on talented, hard-working, enthusiastic workers who could drive their business forward.”* - Allison Kerska, Vice President, Talent Solutions Consulting





## Elevate Learning as a Core Benefit in all Labor Markets

Within Mature labor markets, declining labor force participation rates, spikes in wage inflation and controls on migrant labor intensify competition for talent at all levels. In Emerging labor markets, highly skilled and tertiary educated talent is in short supply. The ability to secure talent needed for growth in any of these 51 markets is likely to depend increasingly on compensation strategies and skills development offerings.

The approach and needs vary depending on job type and level. For example, those seeking production and warehouse workers need competitive insight into wage escalation and shift flexibility. For skilled professional workers, there is a discrepancy between job requirements and worker readiness that must be addressed.

### THE GAP BETWEEN JOB REQUIREMENTS AND WORKER READINESS

	Job Requirement	Worker Readiness
All professional workers	<ul style="list-style-type: none"> <li>• &lt; 20% job openings for entry-level talent</li> <li>• 51% of job openings require over 8 years of experience</li> </ul>	<ul style="list-style-type: none"> <li>• 36% of global workforce has &lt; 3 years' experience</li> <li>• &lt; 35% of the workforce qualifies as 'senior'</li> </ul>
IT	<ul style="list-style-type: none"> <li>• 88% of job openings require a degree</li> </ul>	<ul style="list-style-type: none"> <li>• 34% of technology workers have a degree</li> </ul>

The widening gap between IT requirements and worker readiness shows the continued importance of nanodegrees and entry-level learning programs to digital transformation success. Some “super employers” are already making progress. Amazon, for example, includes upskilling options in compensation and benefits packages for distribution workers. Collaboration is another approach. Companies struggling to hire IT professionals might consider forming learning alliances with retail, hospitality or distribution companies as employers of seasonal workers who could upskill ahead of future talent transfers.





## Mature Markets Are Sprinting To Digital; Learning Is Core To Sustainable Talent Shifts

The pace of digital adoption in Mature labor markets, accelerated by changes in behavior and demand patterns during the COVID-19 pandemic, has intensified the need for digital skills. **Workers in Mature markets may benefit from greater opportunities** for learning because these markets offer access to training and higher rates of tertiary education that can provide workers with an increased capacity to gain new skills. ManpowerGroup research also shows workers want learning and reskilling opportunities – meaning **companies looking to hire or retain workers should make learning part of their benefits package.**

Emerging markets are not as ready to meet demand for skilled, job-ready workers because of the dual challenge of migration controls and a lack of tertiary education infrastructure. However, **for employers willing to step into the role of educator in Emerging markets, the long-term payoff could surpass that of Mature markets.** This is due to the large wage disparity and relative youth of the labor force (matched only by Israel within the Mature market category).

### MARKET READINESS TO MEET DEMAND FOR SKILLED WORKERS

This chart provides a comparison of TWI market factors across Mature and Emerging Labor Markets

	+ Mature Labor Markets (20)	↑ Emerging Labor Markets (31)
<b>Average monthly wage (wages in USD)</b>	\$4,374	\$765
<b>Workers classified as highly skilled</b>	40% or more	20%
<b>Generational shifts</b>	43% of workers are baby boomers or Gen X	50% of workers are millennials or Gen Z
<b>Attitudes toward migration</b>	<ul style="list-style-type: none"> <li>• Only 3 of 10 countries rank in the top 10 for global immigration rules</li> <li>• High openness/ease of travel</li> <li>• Low welcoming index</li> </ul>	<ul style="list-style-type: none"> <li>• High openness/ease of travel</li> <li>• High economic risk ratings</li> <li>• More difficult to do business</li> </ul>
<b>Digital skills readiness</b>	<ul style="list-style-type: none"> <li>• Training rates and digital skills coverage rank highly</li> <li>• 39% of workers aged 25+ have a tertiary education</li> </ul>	<ul style="list-style-type: none"> <li>• Training rates and digital skills coverage rank lower</li> <li>• Just 19% of workers aged 25+ have a tertiary education</li> <li>• Predominantly Spanish-speaking workforces (75%); by comparison, just 14% of the workforce speaks English</li> </ul>






## Segment Incubator Markets To Hedge Wage Inflation In Mature Markets

Incubator markets hold the potential to supply highly skilled growth talent to specific fast-growing industries at cost-competitive rates.

### LEADING INCUBATOR MARKETS IN THREE GROWTH INDUSTRIES

Opportunities have been identified in three industries: Digital Services, Advanced Manufacturing and Clean Energy. R&D inflows for Incubator countries suggest governments are co-investing to build growth capabilities in these sectors. At the same time, the generational mix indicates a long-term payoff for companies choosing to invest in Incubator markets.

Digital Services 	Advanced Manufacturing 	Clean Energy 
Belarus	Austria	Germany
Hong Kong	China	Japan
Ireland	Czech Republic	Spain
Lithuania	Italy	United Kingdom
South Korea	Japan	
Taiwan	Poland	
	Portugal	
	Spain	

Targeted investments in Incubator markets will meet the defining talent challenges of the post-pandemic age – namely, accessing industry-specific growth talent in high-potential markets at competitive rates. These are possible medium-term investments that have the potential to bring access to new markets and skills that can boost growth in existing markets.

*Advanced Manufacturing Incubator Markets have a highly skilled workforce (33%), yet the average monthly wage (\$2,314) is nearly half that of Mature markets.*



## THEME 2: Segment Incubator Markets To Hedge Wage Inflation In Mature Markets

### Risks And Opportunities Vary By Segment

Clean Energy incubators show a reliance on high-cost, Mature labor markets. This is due to the high concentration of skilled workers and engineering and science graduates required in Clean Energy, and because countries with a high dependence on fossil fuels have been excluded. Clean Energy Incubator markets are expected to expand into more types of labor markets as countries accelerate their pathways to carbon neutrality.




Political stability and language proficiency are more likely to be challenges in potential Digital Services Incubator markets. However, history already shows that focused workforce investments in markets that are well-positioned to support growth industries can increase innovation capacity and speed-to-market. Taiwan's semiconductor industry and Austria's success in auto manufacturing are recent examples.

Digital Services Incubator markets are concentrated in Europe and Asia. They have relatively high proportions of permanent and contingent skilled workforces, high technological readiness ratings and country-level R&D expenditures greater than 1% of GDP. None are in Mature labor markets, which presents opportunities to mitigate wage pressure.

Advanced Manufacturing Incubators share some characteristics with Digital Services – they are also concentrated in Europe and Asia, have high technological readiness rankings and have relatively high R&D expenditures. These markets are also limited to those that allow subcontracting to align with the needs of advanced manufacturers that often align their workforces to production cycles.

#### INCUBATOR MARKET OPPORTUNITIES BY INDUSTRY

TWI market factors indicate great potential to supply highly-skilled talent to fast-growing industries

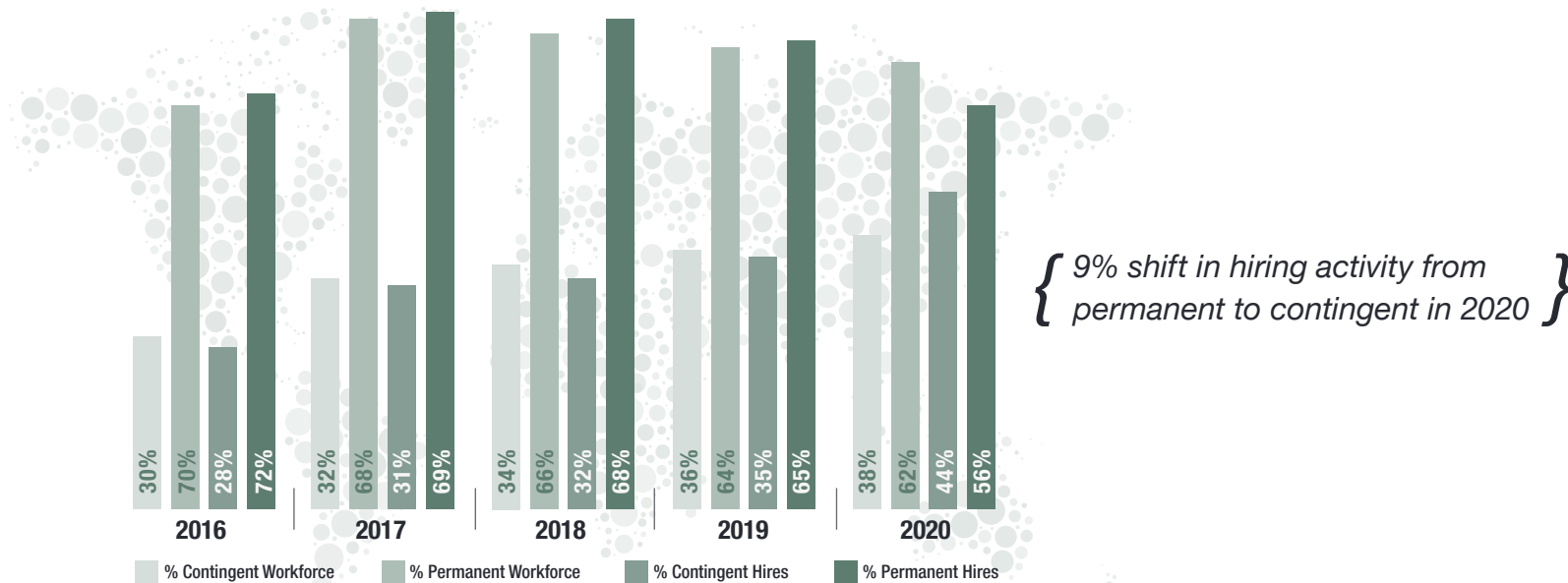
	 Digital Services	 Advanced Manufacturing	 Clean Energy Technologies
Average monthly wage (wages in USD)	\$2,528	\$2,314	\$3,976
Workforce skills	34% highly skilled	33% highly skilled	36% highly skilled
Generational shifts	41% Gen Z / millennial workforce	39% Gen Z / millennial	38% Gen Z / millennial
Strengths	<ul style="list-style-type: none"> <li>High R&amp;D inflows</li> <li>High innovation / knowledge output</li> </ul>	<ul style="list-style-type: none"> <li>Medium R&amp;D inflows</li> <li>Supply of engineering / science grads</li> <li>Pension age 60 or older</li> </ul>	<ul style="list-style-type: none"> <li>High renewable energy output</li> <li>Strong infrastructure rating</li> <li>Supply of engineering / science grads</li> </ul>
Risk Indicators	English language skills and regime legitimacy	Low sick pay coverage	Higher cost markets



## Integrate Contingent Labor As An Essential Strategic Sourcing Channel

Demand for contingent work has increased by 9% in the past year,\* continuing a trend visible in Total Workforce Index data since 2013. Within that, high-skilled contingent work represents 40%, on average, of the category in Mature markets. Contingent work now claims its highest ever share of the workforce and new hires.

CONTINGENT VS. PERMANENT WORKFORCE 2016-2020



\*Source: Gartner Talent Neuron May 2021

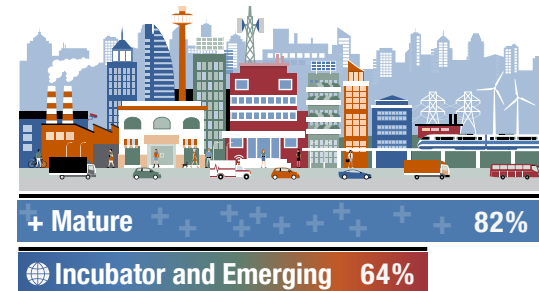
*“TWI data and insights enable organizations to browse options, define optimal buy-build-borrow-bridge strategies, adjust workforce mix and at the end of the day make better-informed workforce decisions to access, activate and retain talent for growth.”*

- Pierre Jauffret, Senior Vice President, Talent Solutions Consulting



## Improving Overall Workforce Strategy By Using Contingent Sourcing

While the data does not indicate accelerated shifts to variable cost models since the beginning of the pandemic, there is anecdotal evidence of a strategic shift in buying behavior – with more clients using contingent sourcing to diversify talent pools and improve the skills mix of their overall workforce. Rather than undermining permanent work, contingent labor augments permanent work and offers **access to highly skilled workers choosing to work in more flexible ways.**



**IN MATURE MARKETS, PERMANENT WORK IS SECURE DESPITE THE USAGE OF CONTINGENT WORKFORCE**

*% of permanent work by labor market type*

Higher rates of contingent work are also a signal of a labor market's remote readiness. The average TWI Remote Readiness ranking for countries with a highly skilled contingent workforce is 21, compared with 47 for all other countries. Remote readiness also demonstrates how differentiation in workforce strategies can extend to the balance of fixed versus variable cost labor. **Businesses and workers are increasingly moving to contingent work in their search for increased flexibility and autonomy post-pandemic.** Regulators are already reacting to this trend in Mature markets, such as the U.K.'s requirement for benefits to be paid to contingent workers and adjustments to payroll regulations.

Contingent labor is now an essential sourcing option for companies looking to diversify their skills mix and power their digital shift with growth talent.

*“Even within mature markets, the contingent labor utilization and legislation vary. Leveraging the TWI enables employers to measure the right workforce mix at a function and market level to capitalize on advantages of flexibility, retention, and cost efficiency.”*

- Raleen Gagnon, Vice President, Global Market Intelligence, Talent Solutions



## Maximizing The Value Of The TWI

Labor markets are complex and dynamic. Individual dimensions (e.g., workforce supply, cost efficiency, regulation and workforce productivity) are important to understand, but they don't tell the complete story of talent trends and business needs in today's reality.


The TWI demonstrates the opportunities associated with prioritizing learning as a core benefit, making targeted investments in high potential growth locations and reorienting contingent work as a strategic sourcing channel for highly skilled talent. [See page 15](#) to learn how organizations are leveraging the TWI to accelerate workforce results.


Employers are already gaining an edge in the race for growth talent by shaping workforce strategies with leading market intelligence. The Total Workforce Index enables organizations to conduct customized analyses with the weightings for data adjusted to factors that drive growth uniquely within a specific industry and markets. The opportunities for customization are extensive. From insights to support retention-focused compensation to diversifying location or channel mix, the TWI provides essential data-driven insights to guide workforce strategy.





# How Employers Are Leveraging The TWI


Companies of all sizes around the world have turned to the Total Workforce Index to help them navigate change – customizing the Index to meet their unique needs – from location strategy and balancing remote and on-site workers to restructuring decisions and meeting diversity and inclusion goals. **Here are some of the benefits these companies are accessing.**


 **Location Strategy:** In addition to analysis of labor cost and supply, trends like digital skills and upskilling opportunities, and geopolitical and social issues can tip the scales in favor of nearshoring versus offshoring and vice versa.


 **Direct Sourcing Strategy:** The TWI is being used to identify the best markets to find workers with the skills needed, especially as new roles emerge and skills needs evolve.


 **Crowdsourced Sourcing Strategy:** As employers identify where to find the specific talent they're looking for through customized analysis of the TWI, they can get insights into market-specific technology enablement tools to attract high-demand talent.


 **Organizational Restructuring:** As costs, regulations and talent availability shift over time, companies are looking at how to decrease and increase operations to meet organizational goals. This includes opportunities for digitization, skills prioritization, resource allocation, upskilling and other market insights that influence how organizations can optimize reorganization efforts.

 **Capacity Planning:** Companies want to know where to access the right talent, how to optimize workforce mix and opportunities to scale staff up and down to meet real-time production needs.

 **Remote Work Allocation:** Custom TWI analyses are enabling employers to determine the right balance of remote and on-site work globally and shape a remote sourcing strategy that meets their specific needs.

 **Diversity and Inclusion:** As companies focus increased attention on diversity and inclusion across their entire workforces, they're turning to the TWI to understand which markets can best meet diversity and inclusion goals, such as age, ethnicity, race, gender, etc., based on their industry, company and job roles.

 **Workforce Mix:** By configuring the TWI for industry and organizational needs, employers can plan for optimal workforce mix (e.g., permanent, contingent, scope of work, freelance, gig) by location – city, province, state and/or country.

 **Cost Savings:** The TWI gives companies insight into how shifting regulations, changing wages and talent supply will impact the cost of operations in specific locations.

 **Compliance:** Regulatory changes are an important part of employer considerations around cost and productivity, and companies are also using the TWI to ensure compliance with fast-changing and increasingly complex labor laws.

# First-to-Market And First-to-Talent

The Total Workforce Index provides the actionable data and real-time insights that make the difference in a world that expects companies to pivot on demand. Visit [www.totalworkforceindex.com](http://www.totalworkforceindex.com) to learn more, including market rankings and market data on Workforce Supply, Cost Efficiency, Regulation and Productivity.

## Bring The Benefits Of The TWI To Your Organization



1. Request a custom analysis weighted to your specific needs and focused on your industry and geographies



2. Speak to a consultant about growth talent strategies that leverage learning as a core benefit, investment in incubator markets and strategic use of contingent sourcing: [consulting.talentsolutions@manpowergroup.com](mailto:consulting.talentsolutions@manpowergroup.com)



3. Sign-up to reserve a copy of the forthcoming Spotlight Reports at [totalworkforceindex.com](http://totalworkforceindex.com)

**About Talent Solutions** Talent Solutions combines our leading global offerings RPO, TAPPIN-MSP and Right Management to help organizations address their complex workforce needs. Talent Solutions leverages our deep industry expertise and understanding of what talent wants to provide end-to-end, data-driven capabilities across the talent lifecycle. From talent attraction and acquisition to upskilling, development and retention, we provide seamless delivery, leveraging best in breed technology and extensive workforce insights across multiple countries at scale. [talentsolutions.manpowergroup.com](http://talentsolutions.manpowergroup.com)

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