

STKI 2020

Volume 1 v3

Israeli IT Market Study

*Post COVID-19 transformation,
assumptions, economy, forecasts
companies and industry budgets*



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INTRODUCTION

2

The **covid19 pandemic has thrust daily life into uncertainty** by closing stores, surging unemployment, keeping students /consumers/employees sheltered at home, causing studies, work, commuting and spending habits to shift.

Given the differences in the handling of the covid19 pandemic, initial state of the country's industries, tech awareness, openness of the population to conform to "government's civilian behavior rules" we will see **different POST-COVID19 technology needs per country.**

In these volume we will try to answer how these "new needs" will influence ISRAELI future usage of "digital" tools, e/m commerce for B2B & B2C (birth of B2B2C), work-life balance, office-home work, employee journeys (CX) and many others. ***Businesses will deliver different value now with "virtual service" being a major part of the deliverable.*** What was called **Digital Transformation** just a year ago (digital facilitators of business value through web and mobile technologies) is not relevant today. It accelerated as the pandemic ***forced entire populations into digital channels and a new normal has been established:***

POST COVID19 and the movement of technologies toward satisfying those needs is called POST COVID19 TRANSFORMATION and I hope this volume will answer most of your questions

Dr. Jimmy Schwarzkopf
Research Fellow & Managing Partner



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Dr. Jimmy Schwarzkopf, Research Fellow , STKI

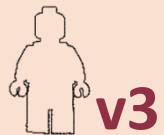
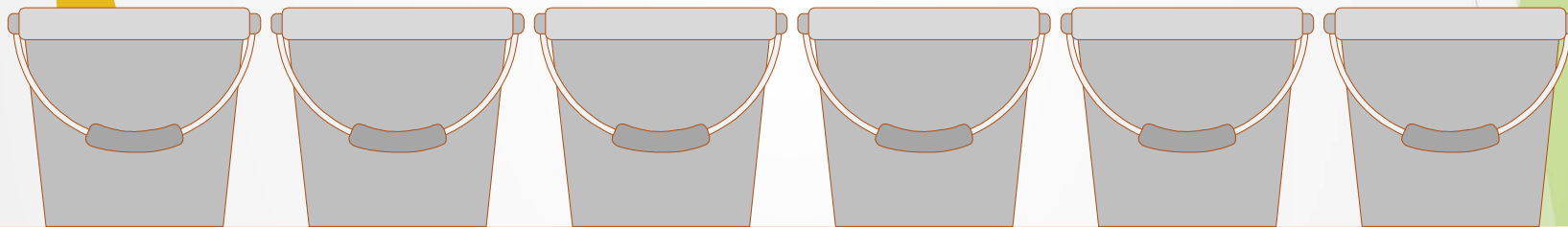
- **Dr. Schwarzkopf has worked during the last 40 years in all areas of Computer Information Services:**
 - As an Industry Analyst at META Group (Israeli Research Manager) and was named a META Group Research Fellow.
 - As an academic researcher in Entrepreneurship Sciences; has published and presented in several international IT and Management Conferences
 - Editorial Board Member of the academic journal "International Journal of Opportunity, Growth and Value Creation".
 - As a consultant in Arthur Andersen Consulting (USA), Booz Allen (USA) and Kesselman & Kesselman (Israel)
 - As a systems professional in SCS Computers and the R&D Unit of the Israel Defense Forces.
 - As a marketing professional in Digital Equipment Corporation.
 - As a teacher/mentor in the MIS department / Tel-Aviv Yafo Academic College and the Computer School of the IDF.
 - As an entrepreneur founding three companies in the IT arena: STKI and companies in the areas of store/forward mail and office systems.

- **Dr. Schwarzkopf served on the Board of Directors of Ashot Ashkelon Industries, served as President of the Gymnasia Herzelia Association, Co-founder of the Mashov Political Movement and was a member of the Central Committee of the Labor Party. Major (Rav-Seren) in the reserves, Israel Defense Forces (where he served in an elite unit and later in the R&D unit). Registered Engineer (IS22881), member of MENSA Israel.**

- **Dr. Schwarzkopf received BSE and MSE degrees (Systems Engineering) from the University of Central Florida. Received a MSIA (Management Information Systems) and ABD (PhD Program) in Systems Science (received (twice) the William Larimer Mellon Scholarship/Award) from Carnegie Mellon University. His doctorate (DM-Management/Entrepreneurship) he received from Weatherhead School of Management at Case Western Reserve University.**

Economic Outlook for Israel

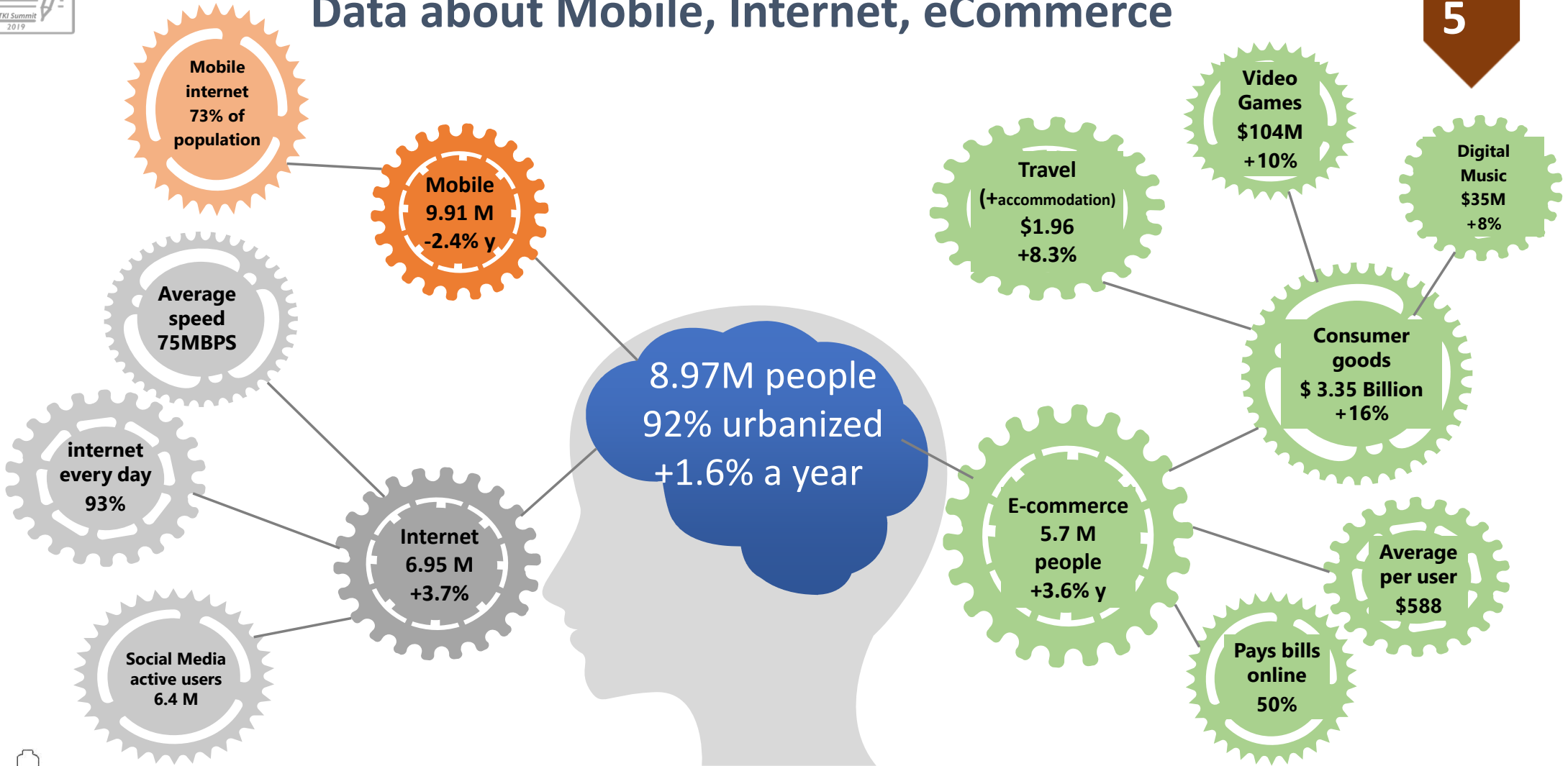
Written January 2020
Pre-coronavirus crisis



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Data about Mobile, Internet, eCommerce

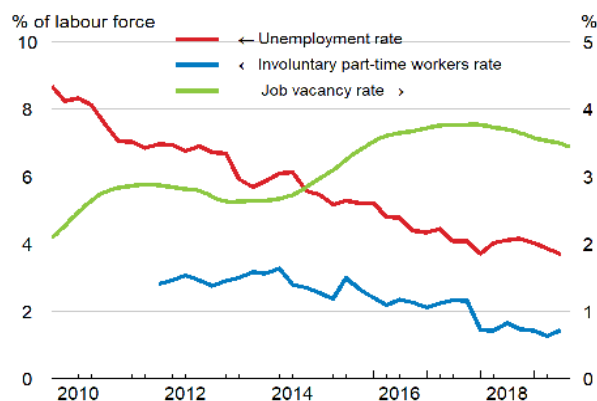


@Hootsuite

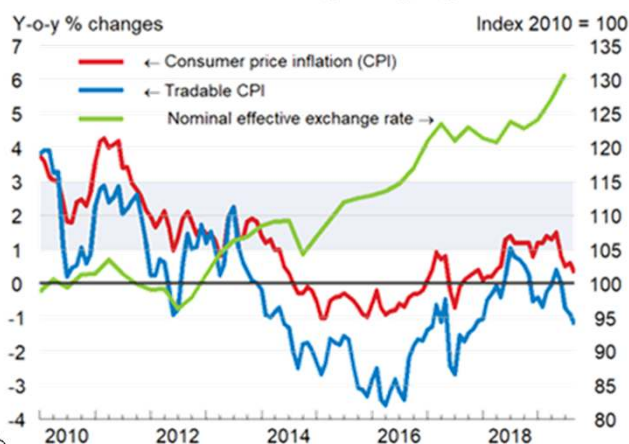
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The labour market remains tight



the central bank target range again¹



Israel	2016	2017	2018	2019	2020	2021
	Current prices	Percentage changes, volume (2015 prices)				
GDP at market prices	1 225.0	3.6	3.5	3.1	2.9	2.9
Private consumption	670.9	3.3	3.6	3.4	3.2	3.0
Government consumption	274.7	3.4	4.1	2.9	3.7	2.5
Gross fixed capital formation	253.7	4.2	5.0	2.1	1.0	1.8
Final domestic demand	1 199.2	3.5	4.0	3.0	2.8	2.7
Stockbuilding ¹	6.3	0.3	-0.4	-0.8	-0.2	0.0
Total domestic demand	1 205.6	3.8	3.6	2.2	2.6	2.7
Exports of goods and services	363.7	4.0	5.7	4.6	3.0	3.5
Imports of goods and services	344.4	4.9	6.3	3.0	2.9	2.7
Net exports ¹	19.4	-0.2	-0.1	0.5	0.1	0.3

Memorandum items

GDP deflator	0.2	1.1	2.1	1.2	1.7
Consumer price index	0.2	0.8	0.9	1.1	1.7
Core inflation index ²	0.0	0.6	0.8	1.2	1.7
Unemployment rate (% of labour force)	4.2	4.0	3.9	4.1	4.3
General government financial balance (% of GDP)	-1.1	-3.6	-4.1	-3.8	-3.6
General government gross debt (% of GDP)	60.5	60.9	62.1	63.6	64.5
Current account balance (% of GDP)	2.3	2.6	3.8	3.9	4.0

1. Contributions to changes in real GDP, actual amount in the first column.

2. Consumer price index excluding food and energy.



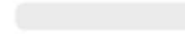
How to read the figures:



Country value in purple
Israel (not represented if not available)



Average of OECD countries in green



Range of OECD country values in grey

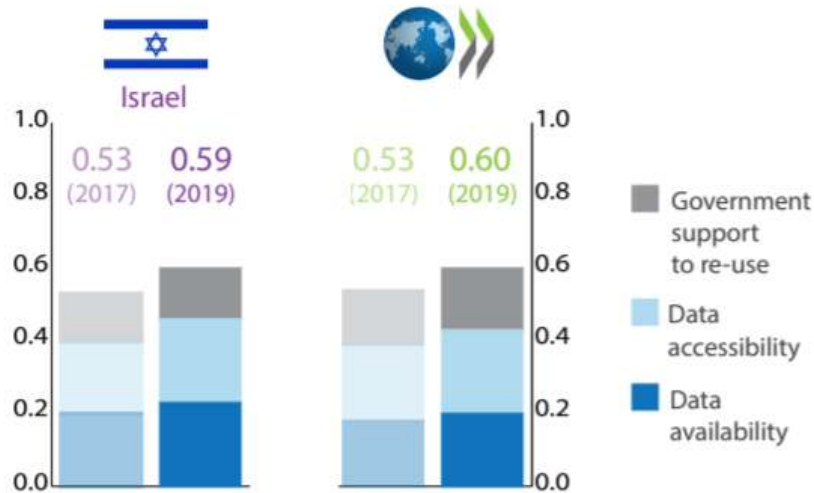
Values have been rounded.
n.a. refers to data not available.

OECD Data

Open Data

OURdata Index: Open, Useful, Reusable Government Data (2017, 2019)

Composite index from 0 (worst) to 1 (best)

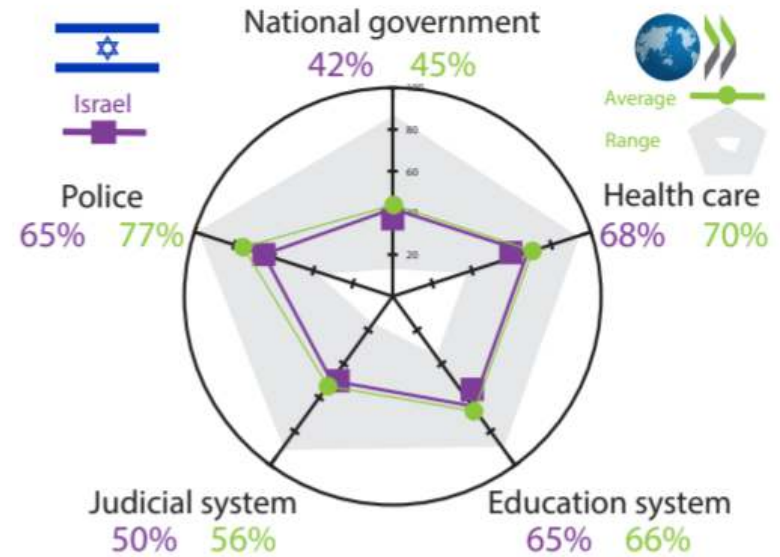


Source: OECD (2017-2019) Survey on Open Government Data

Serving Citizens

Satisfaction and confidence across public services (2018)

% of citizens expressing confidence/satisfaction



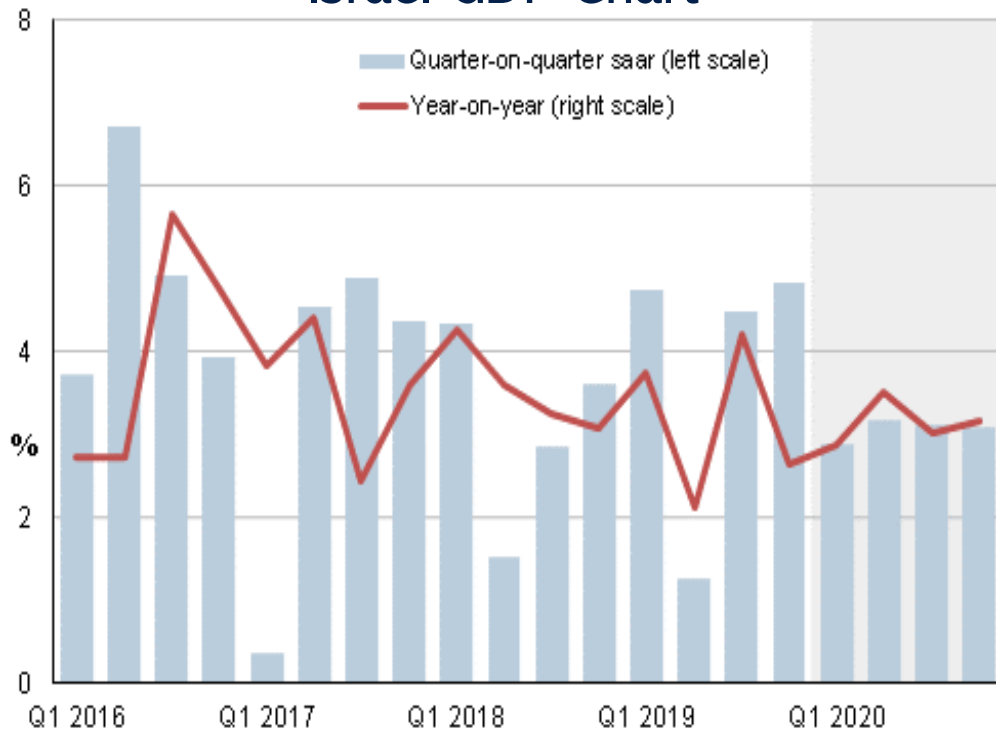
Source: Gallup World Poll



Economic Data for Israel

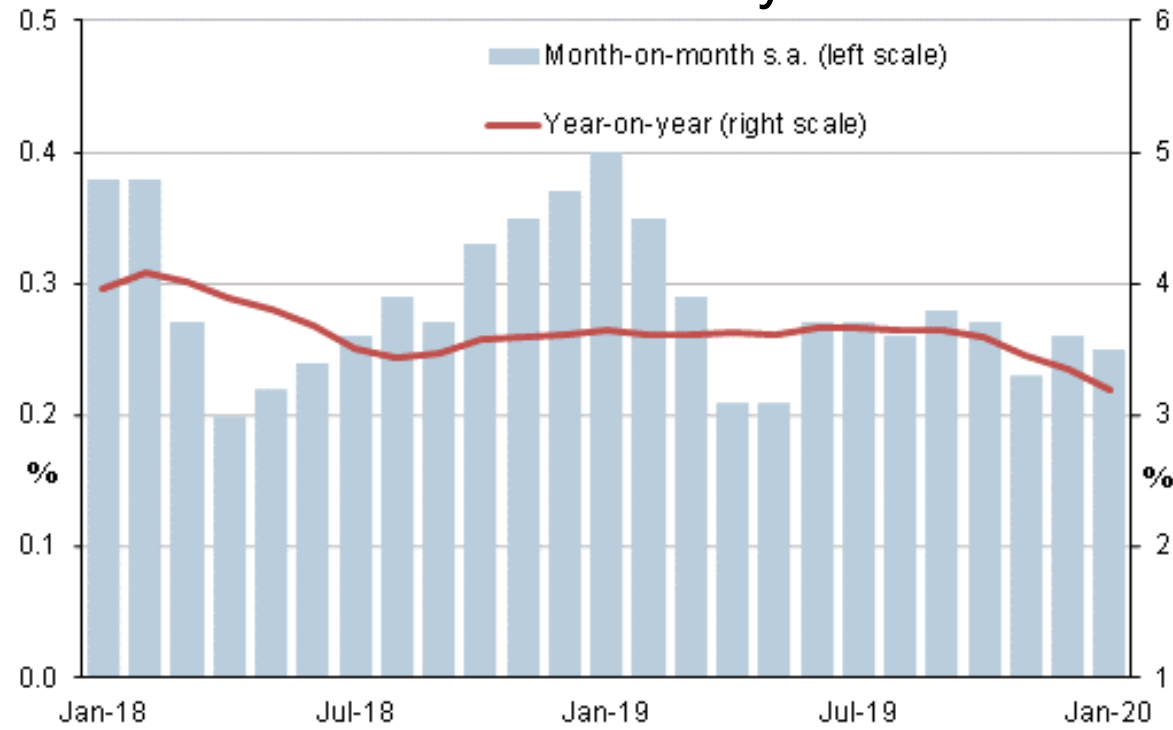


Israel GDP Chart



Note: Year-on-year changes of GDP in %.
 Source: Central Bureau of Statistics (CBS) and FocusEconomics Consensus Forecast.

Israel Economic Activity Chart



Note: Month-on-month and year-on-year variations in %.
 Source: Bank of Israel (BoI) and FocusEconomics calculations.

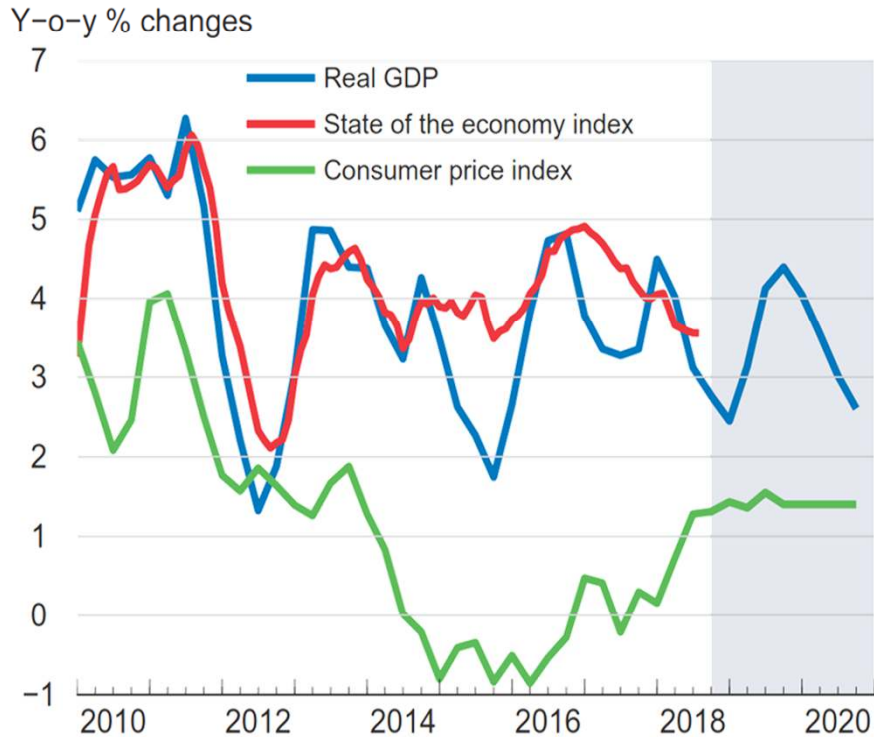


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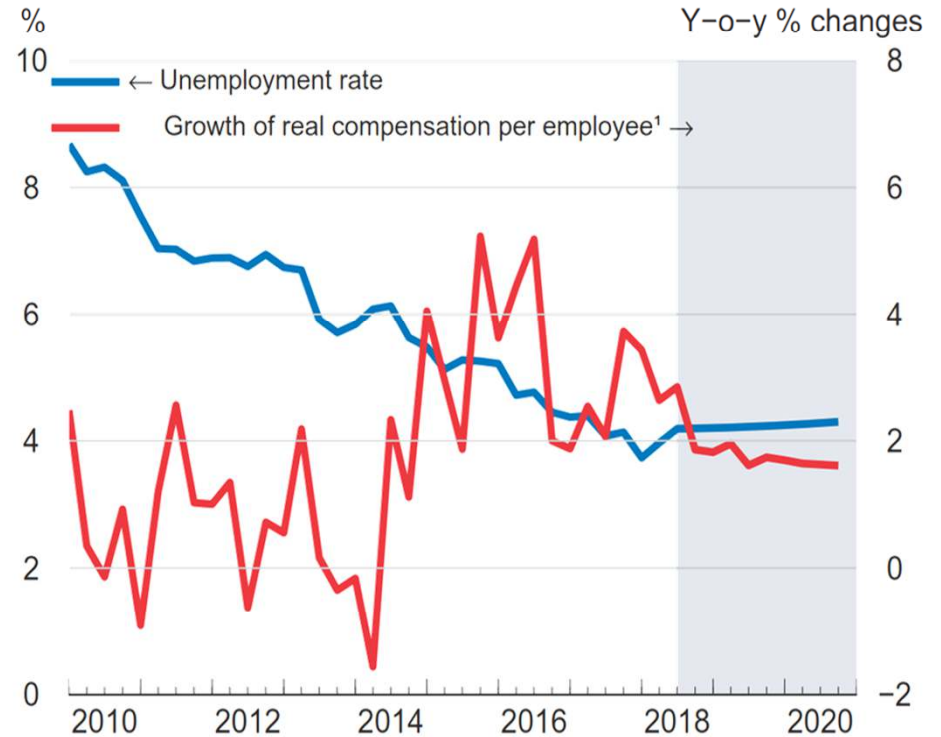


Economic Data for Israel 2

Growth remains robust and inflation will stabilise



Unemployment will remain low



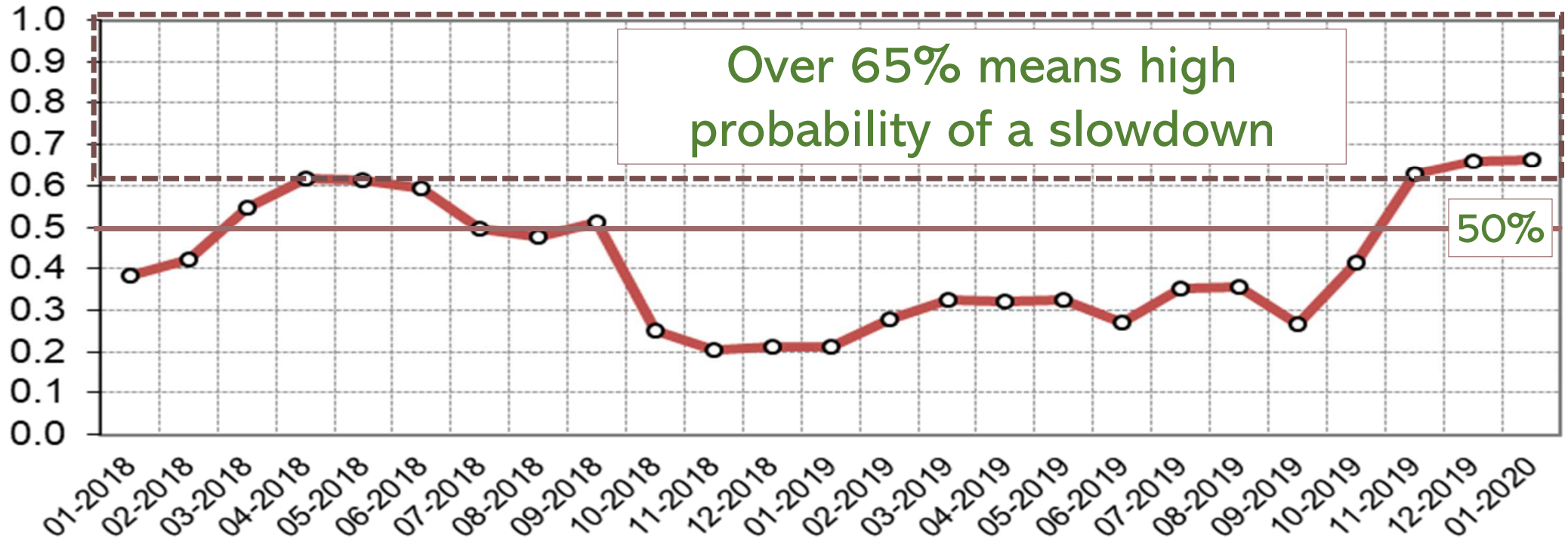
1. Deflated by the private consumption deflator.
Source: Bank of Israel; and OECD Economic Outlook 104 database.



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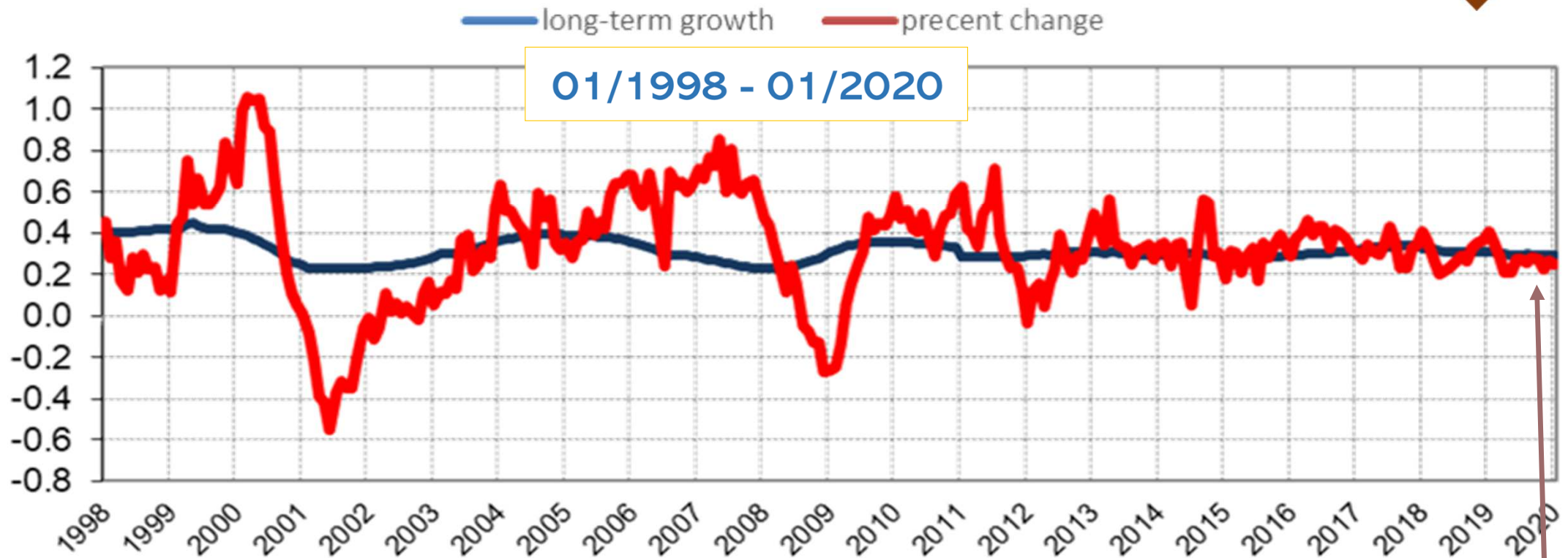


Probability of Economic Slowdown according to Bank Israel 1/2020



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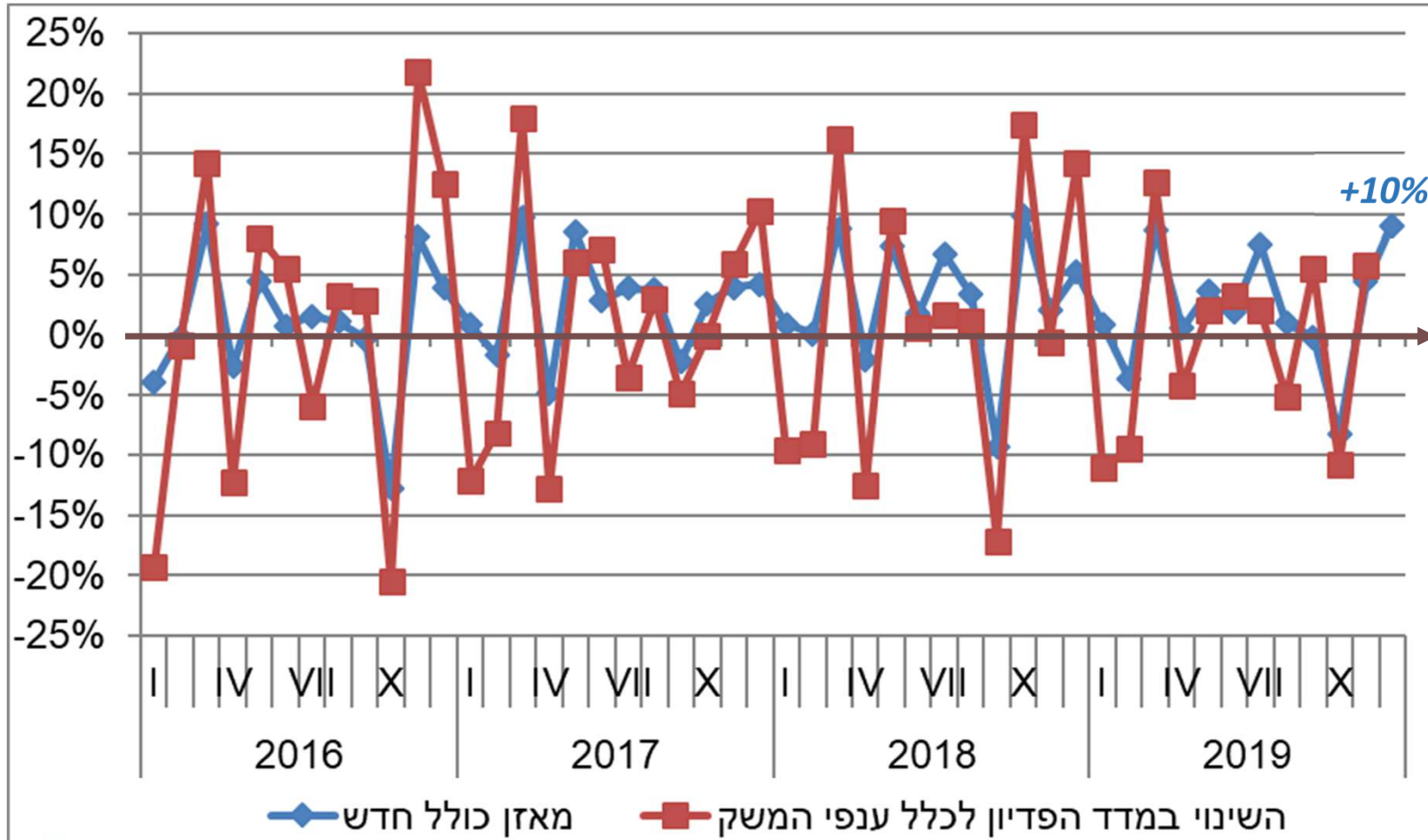
The State of the Economy Index (percent change)



State of the Economy Index reflects the economy's **difficulty in increasing the volume of production**, (low supply of qualified workers) so the country needs to provide a larger share of the demand from outside sources.



סקר הערכת המגמות בעסקים - ינואר 2020 Business Tendency Survey - January 2020

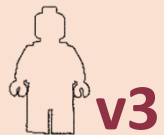


BTS measures the level of optimism that executives have about current and expected developments regarding production, sales, demand, employment and changes in the USDILS exchange rate.



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Post COVID-19 Transformation



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These are the most extraordinary of times offering the most extraordinary of opportunities.



THE GREAT RESET



WE FACE THE TASK OF **UNDERSTANDING**
AND GOVERNING A POST-COVID19
WORLD WITH 21ST-CENTURY
TECHNOLOGIES, 20TH-CENTURY MINDSET
AND 19TH-CENTURY INSTITUTIONS

Prof. Klaus Schwab

v3

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4 INFLUENCES OF TERROIR

CLIMATE



COLD HOT WINDY FOGGY

SOIL



ROCK + MINERAL DEPOSITS DENSITY

TERRAIN



NORTH OR SOUTH FACING ELEVATION/ALTITUDE

CULTURE & PROCESSES



TECHNIQUES PEOPLE

WWW.THESAVORY.COM

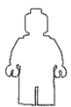
Epicureans (*people who understand food/wines at the highest levels*) have long used the word “terroir” as a “quality description” for wines and special local food products.

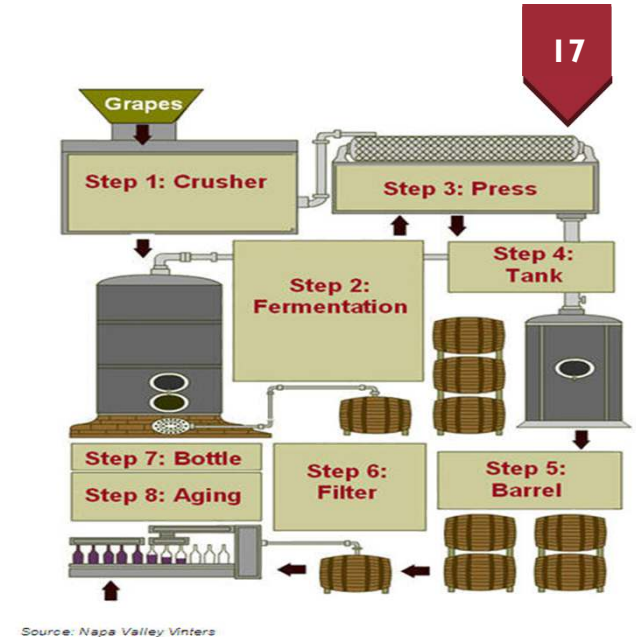
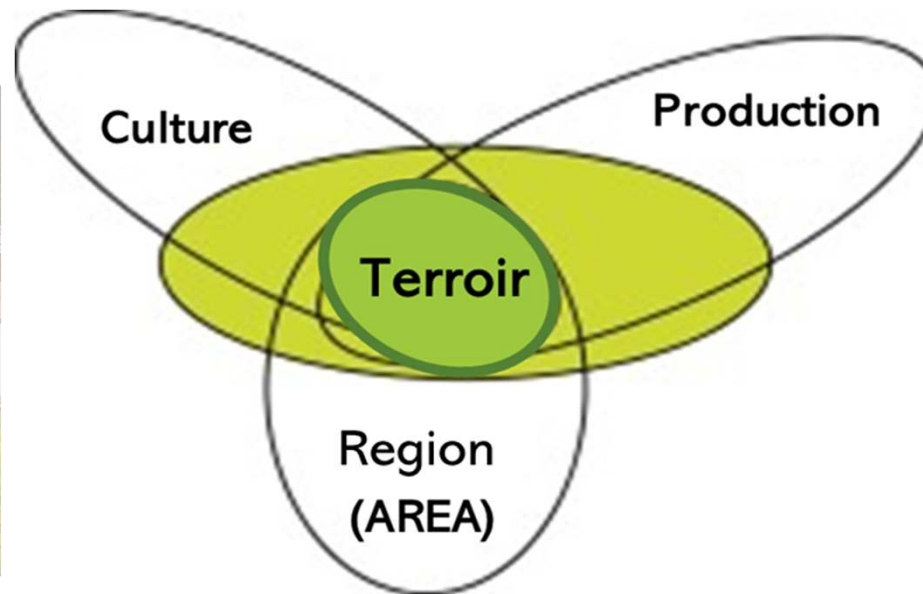
It is used to identify varieties from different districts (at different times) through its value chain (from the field to the finished product)

A *terroir product* must be from a “specific locality or region”

The product mirrors *biological markers* that are derived from the site, influenced by the *year's climate* and should reflect the *culture and process' traditions* of the “manufacturer”

THIS COMBINATION GIVES THE PRODUCT A DISTINCTIVE TASTE AND QUALITY.





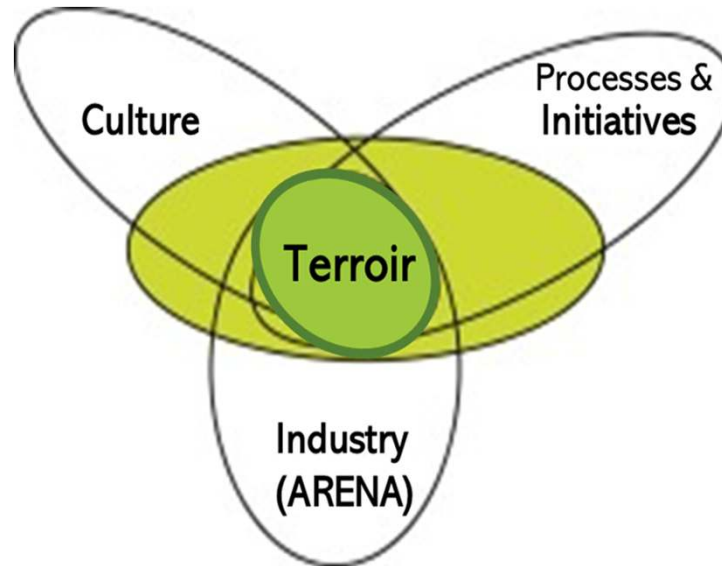
If winemakers that *produce same type of wine start with the same grapes*.
 BUT end up with very different products? What causes those differences?

ENABLERS and **BLOCKERS**

are the elements that determine if they *FLOURISH* or *FAIL*.

ORGANIZATIONAL TERROIR

Culture the positive or negative *actions* *people perform* that will result in a good or bad product or service



Initiatives are the *investments of organizational resources (scope, budget, and start/end dates)*

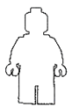
Processes make up the *visible and invisible enterprise. (hidden variations of a business process)*

The *most important competition*, companies will face, is from **entrants** who are not “stuck” by **assumptions** about what the “industry” expects of them.

LIEBIG’s “law of minimum”

FLOURISH or *FAIL* (in a specific terroir) is dictated *not by total resources* available, but by the *scarcest* resource.

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The **massive rate of change** we already witnessed **pre-covid 19** was really “**ONLY the warm-up**”

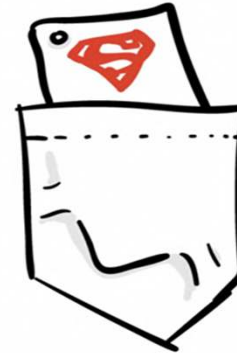
19



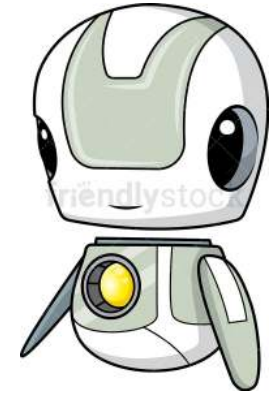
All the world's **information** and media is online.



Mobile devices mean **anyone can reach** anyone, anywhere, anytime.



Cloud computing puts a **supercomputer** in everybody's pocket.



Hyper-Automation puts **AI/ML/DL** in everybody's toolbox

Pre-lockdown worried about TECHNOSTRESS

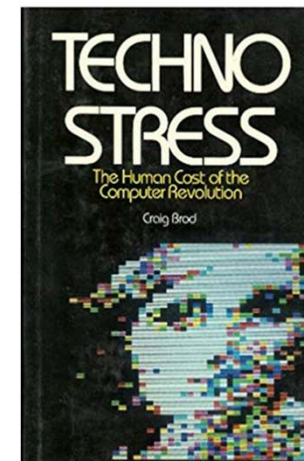
Technostress is a result of the development of new technologies that occurs so quickly that the human brain is not able to keep up with changes and altering old and familiar neural pathways

This disease may manifest itself in:

inability to cope with new computer technologies and FOMO disorder (fear of missing out)

This pressure may cause:

headaches, nightmares, or resistance to technology & computers.



Published
1984



Craig B. Brod
Yale Law School

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Post-lockdown everybody uses : Zoom + WhatsApp



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Post-lockdown everybody uses : Zoom + WhatsApp



Report: WhatsApp has seen a 40% increase in usage due to COVID-19 pandemic

Sarah Perez @sarahintampa / 10:56 pm IST • March 26, 2020

Comment




- Daily downloads of the **Zoom** app have increased 30x year-over-year and the app has been the top free app for iPhones and Android.
- Zoom daily users spiked to 200 million in March, up from 10 million in December.

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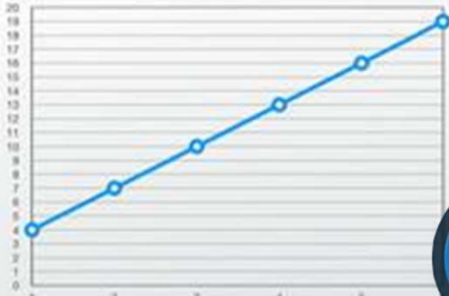
THE POST-COVIT19 PEOPLE




Companies are still building tech-driven products and services with playbooks from the past.

Can your enterprise survive ?

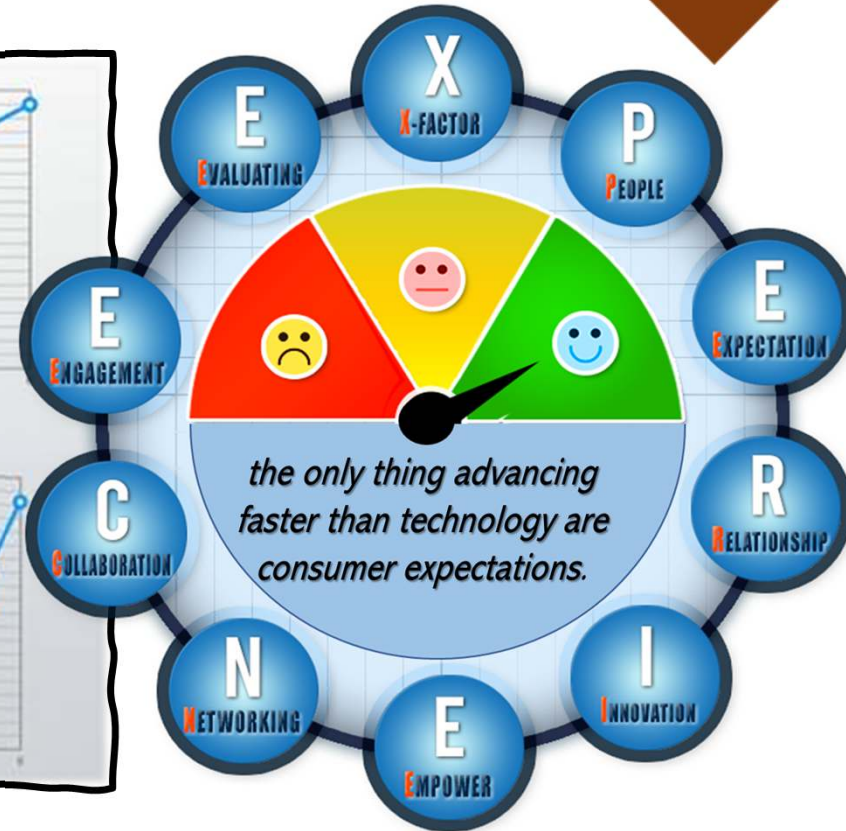
Post-COVIT19 people have high (exponential) expectations



Year	Value
1	4
2	7
3	10
4	13
5	16
6	19



Year	Value
1	50
2	60
3	75
4	100
5	150
6	250



leading in this new decade means working to

redefine the intersection

between people's expectations and technology absorption

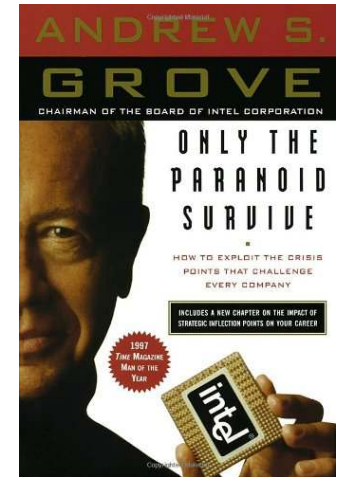
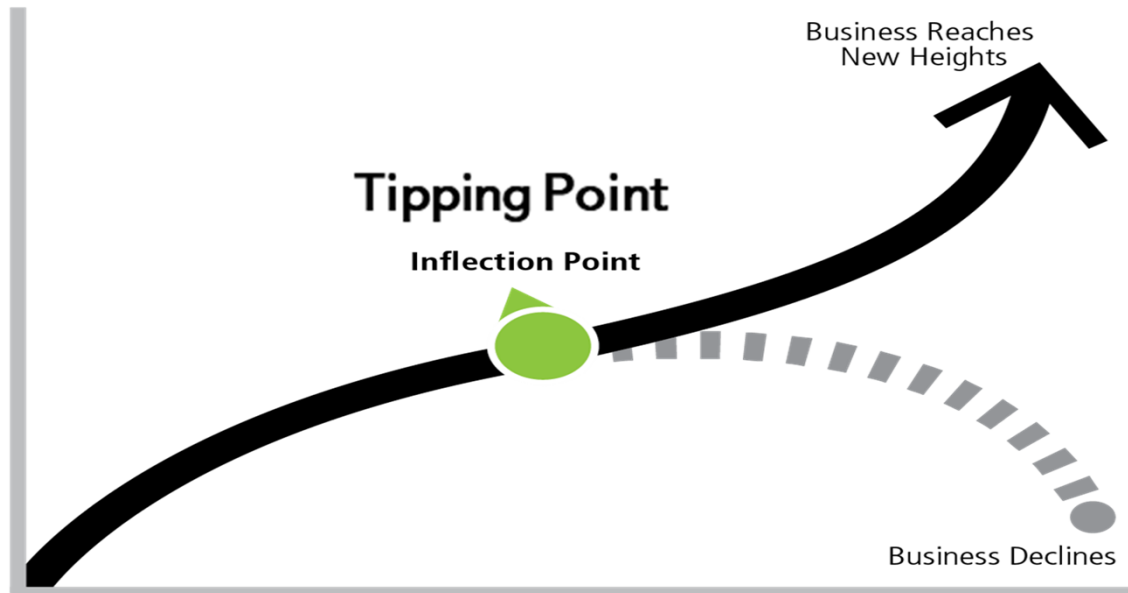


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“**inflection point** is a time in the life of business when its **fundamentals are about to change.**

That change can mean an **opportunity to rise to new heights.**

But it may just as likely **signal the beginning of the end of an era”**



Andrew S. Grove,
CEO of INTEL Corporation

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ROGUE WAVES (גלים סוררים)

are unusually large, unexpected and suddenly appearing surface waves that can be extremely dangerous, for several reasons: they are **rare, unpredictable, may appear suddenly or without warning**, and can **impact with tremendous force**.

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The **covid-19 lockdown** has thrust daily life into uncertainty:

closing stores, surging unemployment, keeping students /consumers/employees sheltered at home, causing studies, work, commuting and spending habits to shift.



The lockdown has *forced entire populations into new (digital) channels*

- "More **customers** than ever are shopping online (many for the first time), more **employees** are working from home, **videoconferencing** as the communication tool and **mobile "contactless" transactions** (growing in size\$\$) have become the standard"-

These shifts had to be enabled by technology.

IT departments must adapt (while in motion) to deliver solutions to these shifts in behavior.

This change is called POST-COVID 19 Transformation

**POST-COVID 19 TRANSFORMATION
did not replace
DIGITAL (Modernization) TRANSFORMATION
it accelerated it**

TAKING THE LEAP

if DIGITAL MODERNIZATION charts a steady march ; POST COVID-19 TRANSFORMATION is a leap forward.



staying competitive
by adopting new
business-enabling
technologies

DIGITAL
MODERNIZATION

transforming the game by
breaking fundamental processes
and changing the
ORGANIZATIONAL TERROIR

Post-covid-19
TRANSFORMATION



STATUS QUO

What are the most exciting post-covid 19 (first phase) trends?

COMPANIES:

- The acceptance of **virtual working** (especially trusting employees)
- Investing time in understanding how to make **telecommuting work**
- Making **distributed teams** work, with “half and half” in-person and virtual interactions,
- Thinking about **employees’ wellbeing** at home

PEOPLE/INDIVIDUALS

- Will renegotiate their **sense of data privacy**
- Re-organize their **patterns of living and interacting** with family and friends,
- Already thinking about **who they want around them for the second wave** (if and when it happens)



Organizational Terroir

may seem *invisible during prosperous times*, but in *moments of crisis, its presence can be felt in the collective behavior of employees*, it either helps a company pull together and get things done or leads to inertia, confusion, and even mistrust.

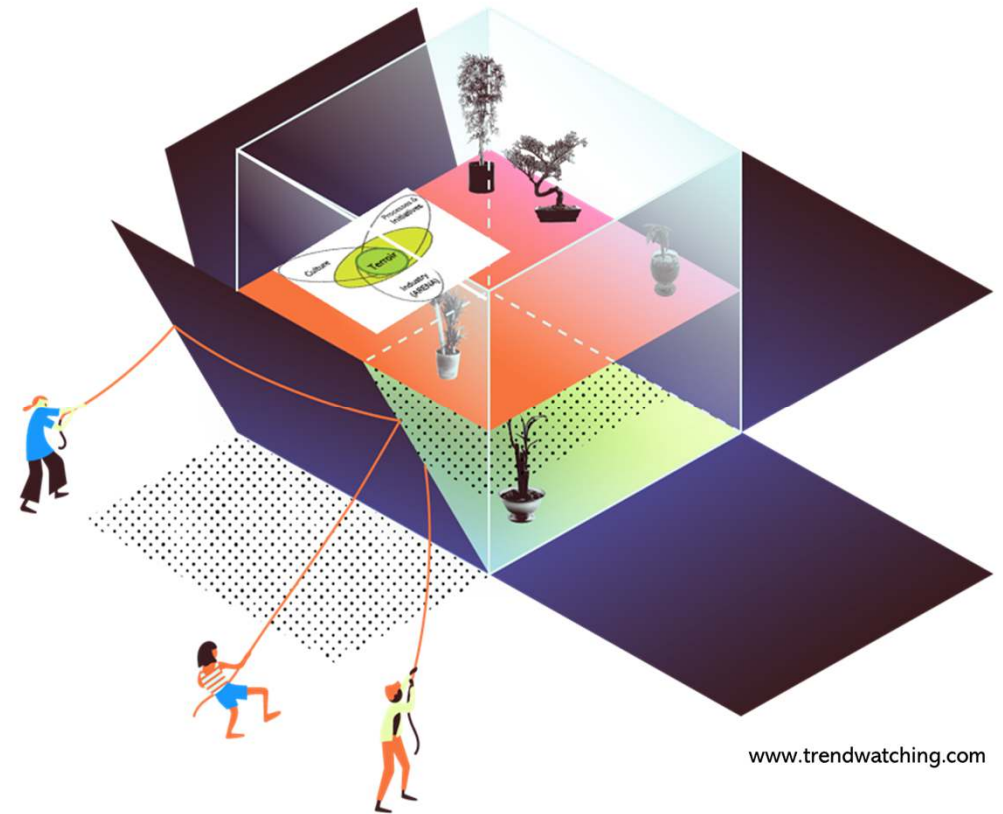
An organization's terroir used to be a black box.
Post-covid19 it's a glass box.

Organizational Terroir is now customer-facing

- Customers can see inside.

They can see the people, the processes, and the culture at work.

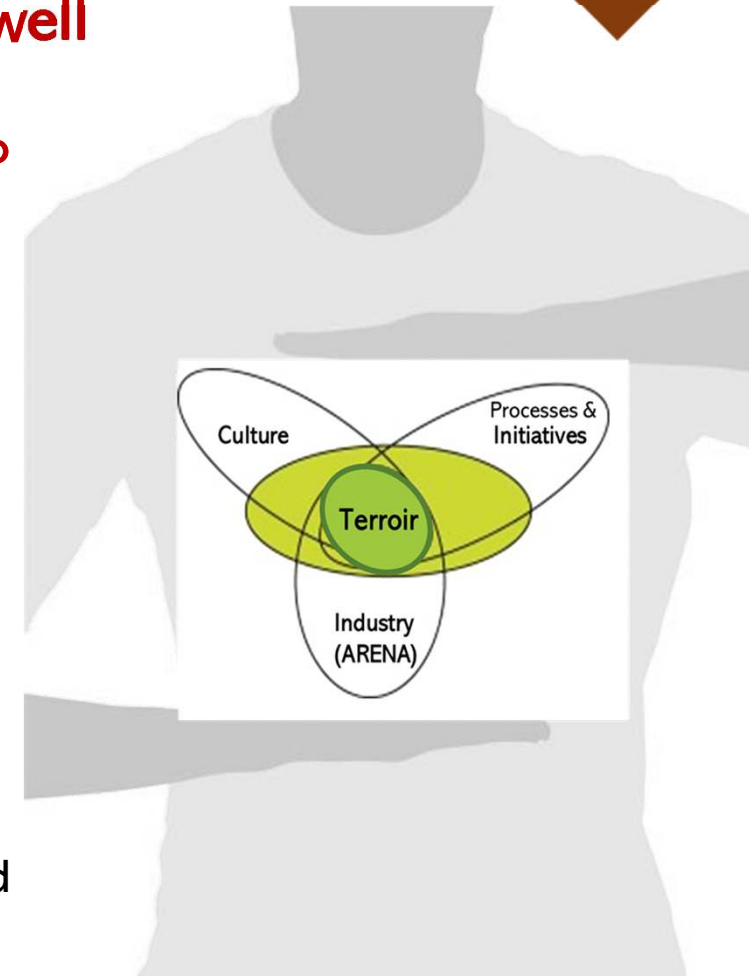
- Once customers see the terroir, it will become part of the set of cognitive and emotional associations associated with *products/services of the organization.*



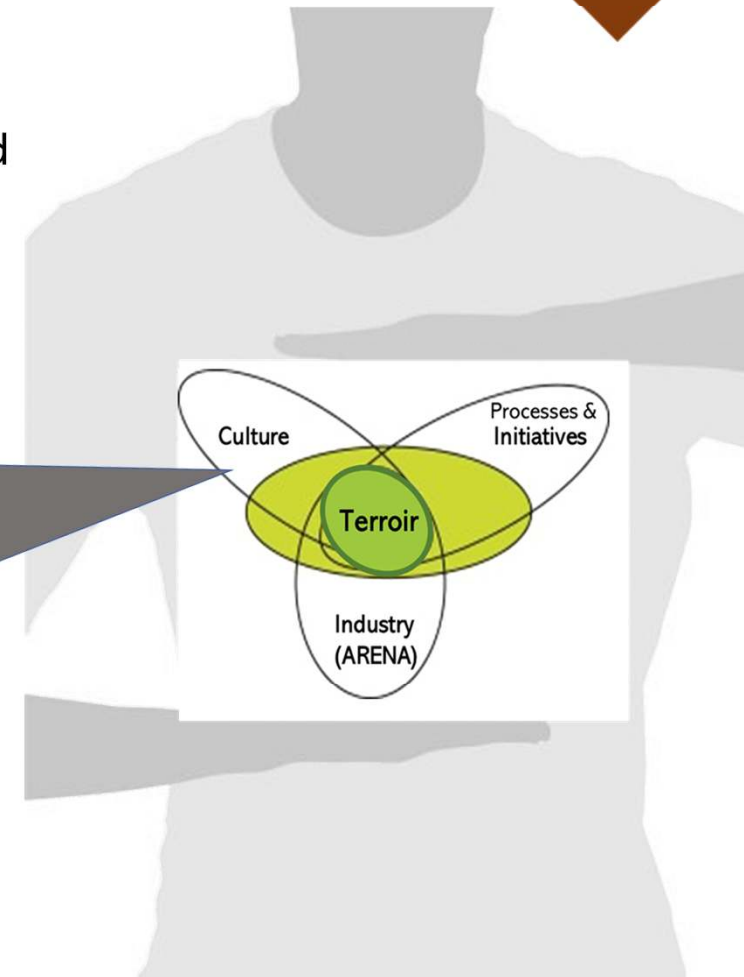
www.trendwatching.com

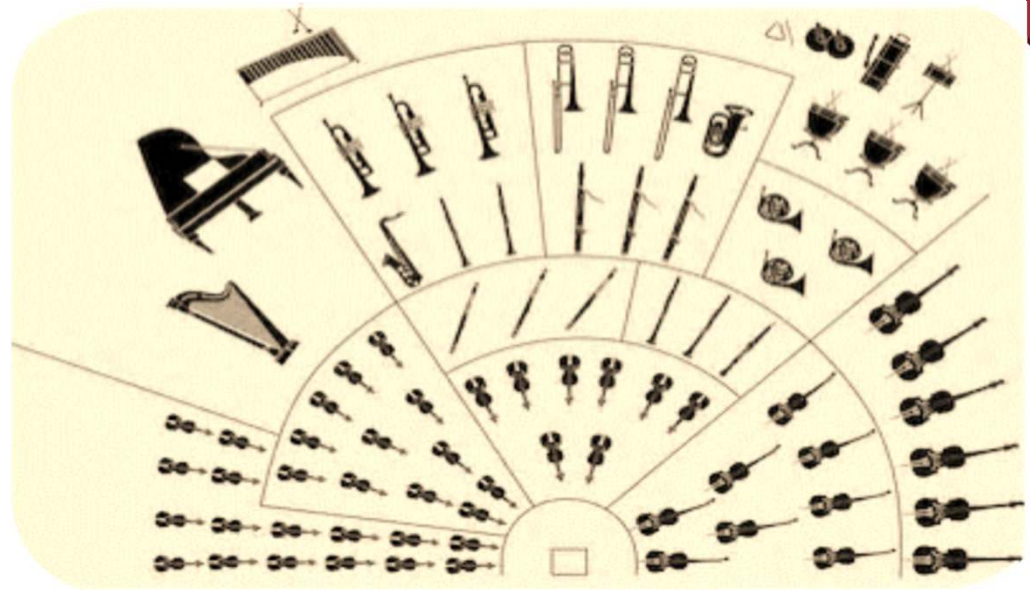
worst of times brings out the best in people this is true of organizations as well

- Organizations challenged by the COVID-19 crisis found **new ways to serve their customers**.
- Almost every CIO we speak with has a **story of radical, positive change in how his organization gets work done** and what has been accomplished since March.
- Many people have **worked harder than ever** and risked suffering fatigue and burnout
- Some of these outcomes might simply be from **“organizational adrenaline”** (efforts that are unsustainable)
- Organizations moved “employees” to **work at home** and conveyed a **high level of trust, eliminated bureaucracy, empowered untested managers** with big strategic responsibilities (especially the CIOs) and **“turbocharged” decision making**.



Organizations moved “employees” to **work at home** and conveyed a **high level of trust, eliminated bureaucracy, empowered untested managers** with big strategic responsibilities (especially the CIOs) and **“turbocharged” decision making.**

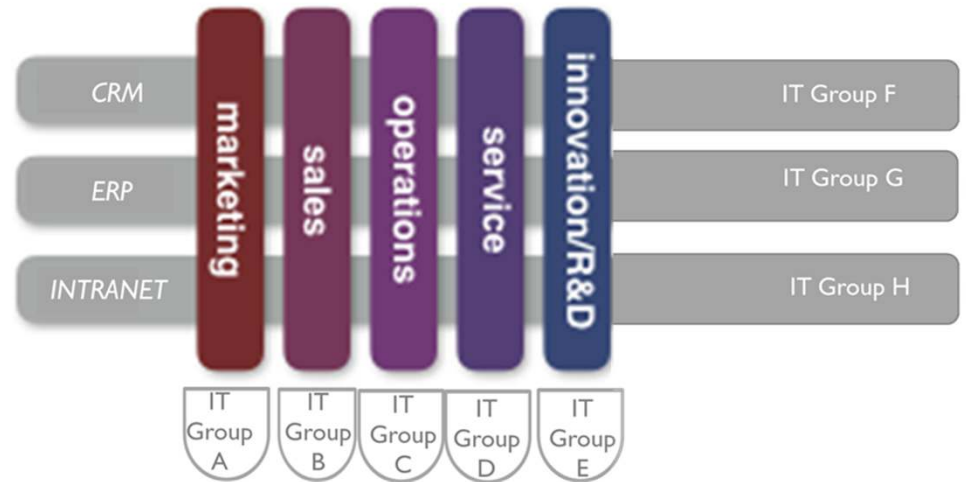




Organizations (of the past) were like classical symphonies.

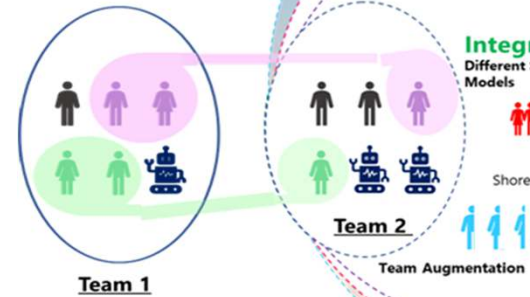
They required the *integration of a large assembly of highly talented* individuals for its performance.

CEOs used to resemble the great conductors in making everything work together.





POST-COVID 19 Organizations
no one gives the CEO the
music he must conduct
he must improvise



- 1 TEAM SELF-ORGANIZATION
- 2 THE FRAMEWORK
- 3 TEAM AGREEMENTS
- 4 CONTINUOUS IMPROVEMENT
- 5 TEAM SUCCESS OVER INDIVIDUAL SUCCESS
- 6 T-SHAPED SKILLS
- 7 ACTIVE LISTENING
- 8 SLACK

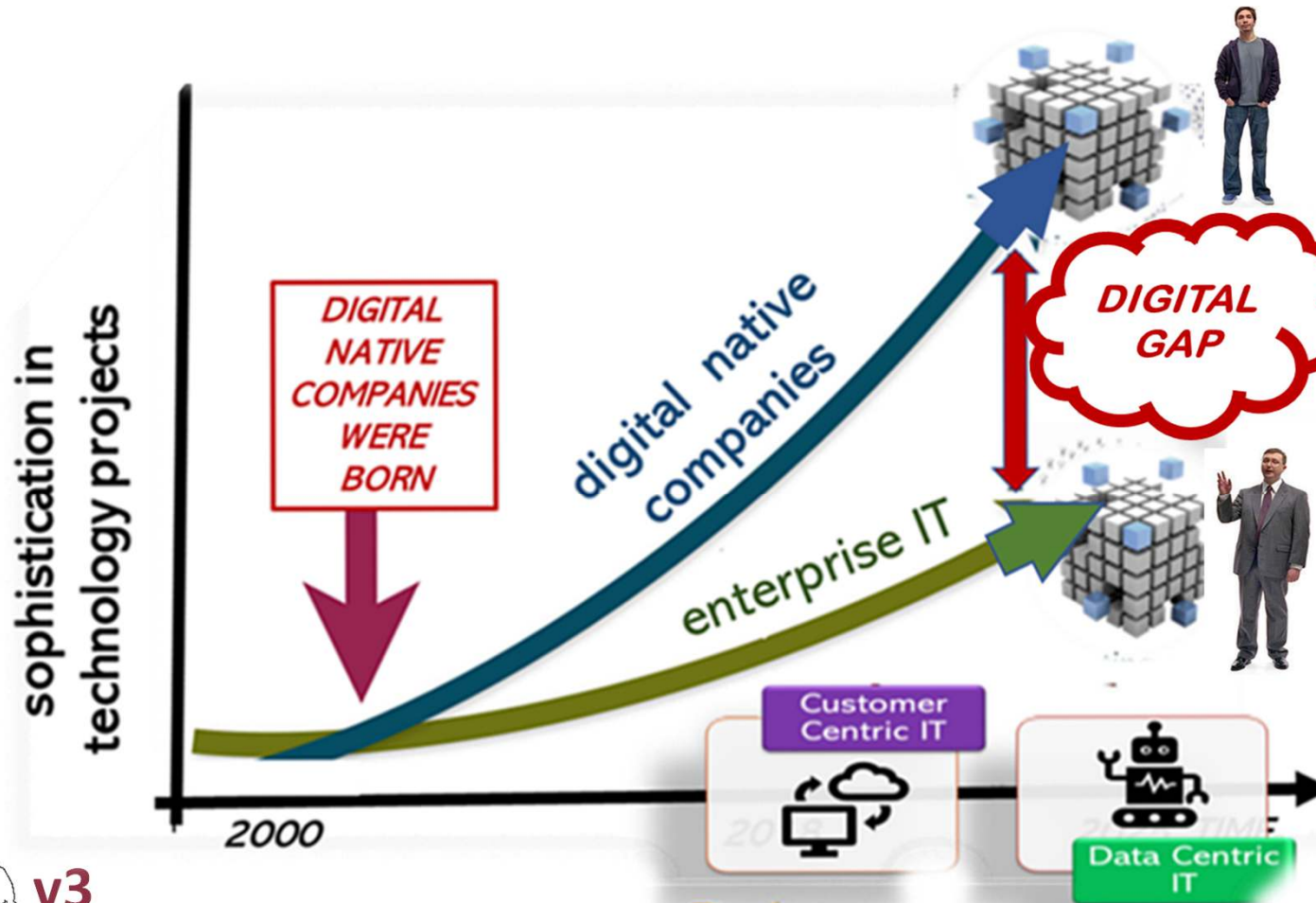
Post COVID19 organizations
(ExOs) will look like a
collection of jazz ensembles
Although improvised

Jazz has melody;
Jazz has harmony,
Jazz has rhythm.



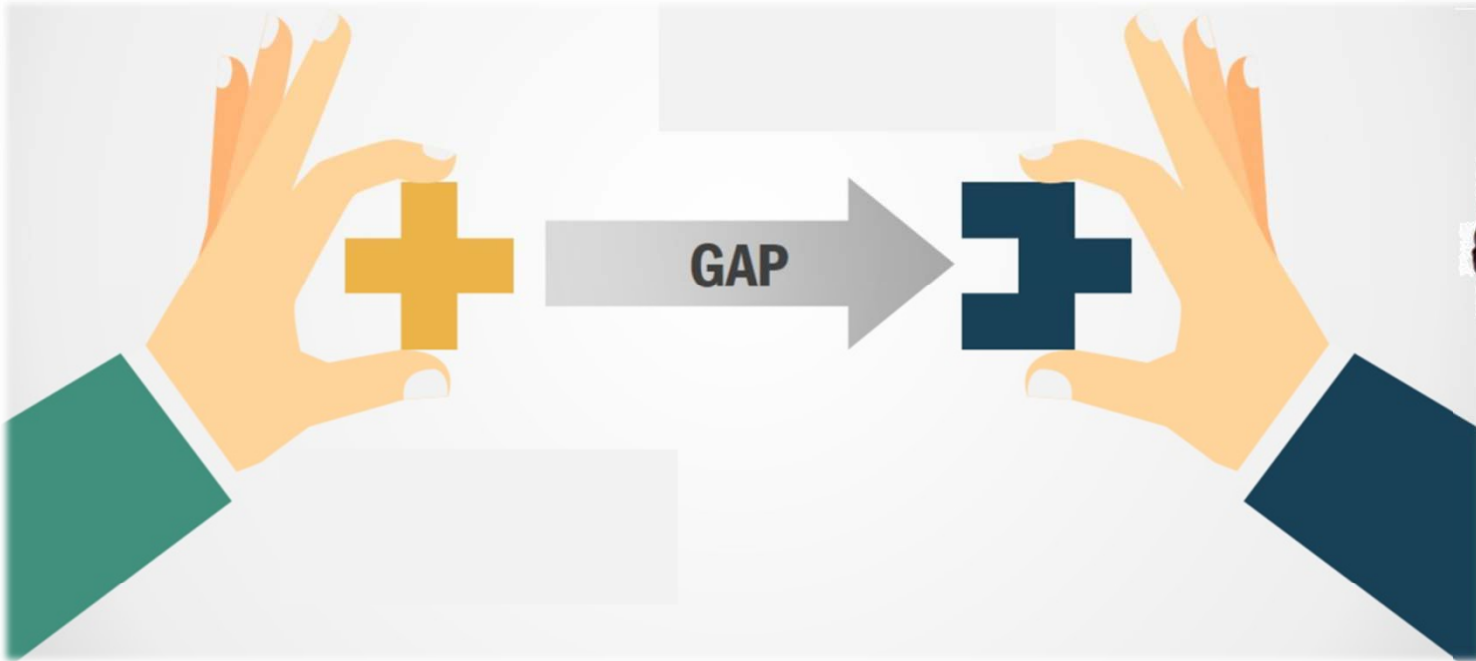
what sets jazz & POST COVID 19 organizations apart is this *cool thing* called *unstructured improvisation*

During the *PRE-LOCKDOWN ERA*
we minded the DIGITAL GAP:



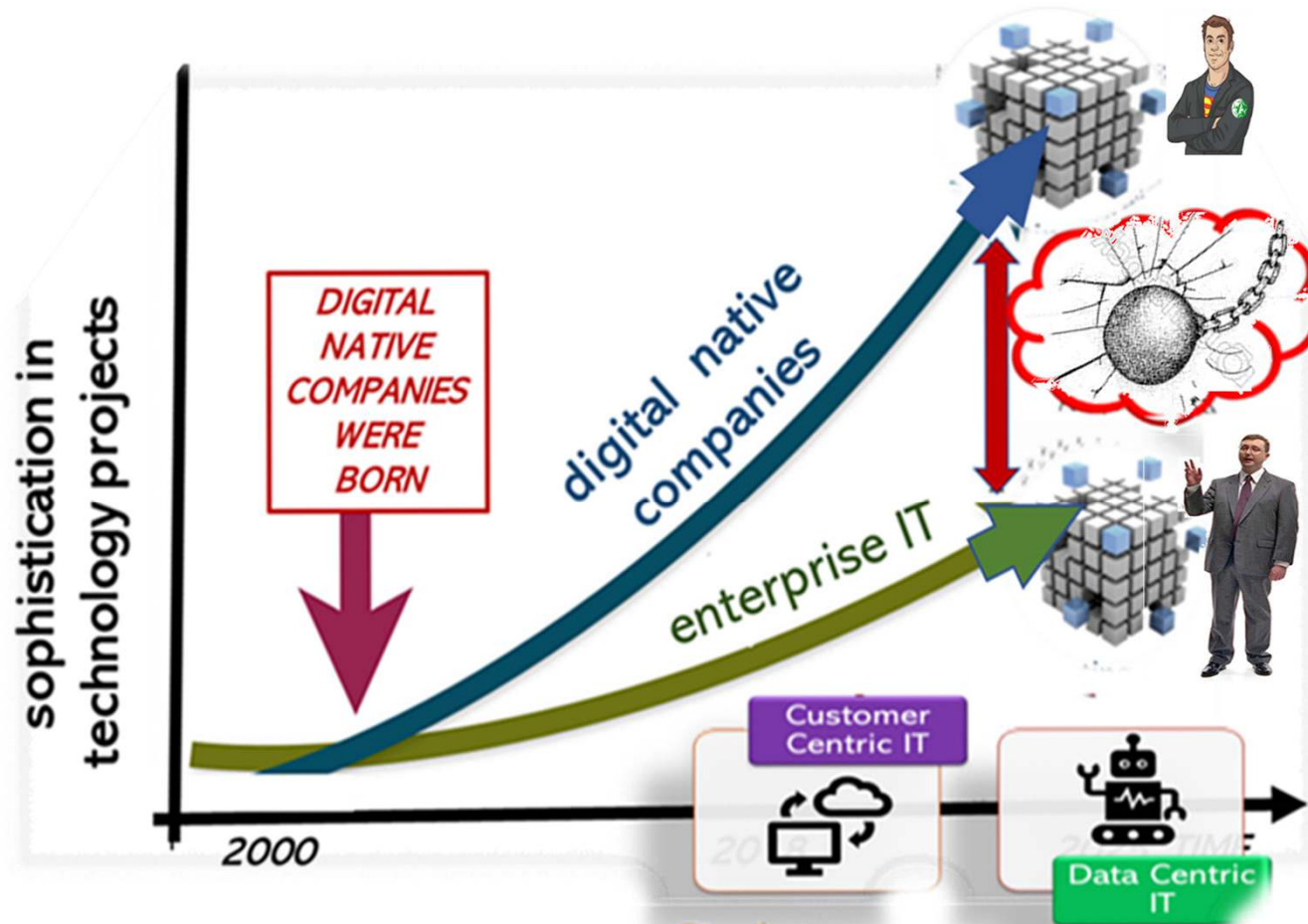
gap between digital native and legacy institutions was **so big** that it was **creating competitive barriers**

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no enterprise will be able to stay alive
(much less succeed) without
adapting to the exponential rate
of change that accelerating technologies deliver.

Post COVID-19 lockdown



The gap is closing because of several events at the same time

- *Work at home*
- *Mobile over web*
- *Mcommerce over Ecommerce*
- *Mobile payments*
- *Study/work at home*
- *Open Source Software*
- *WhatsApp & Zoom effects*
- *Cloud Vendors with local data residency*

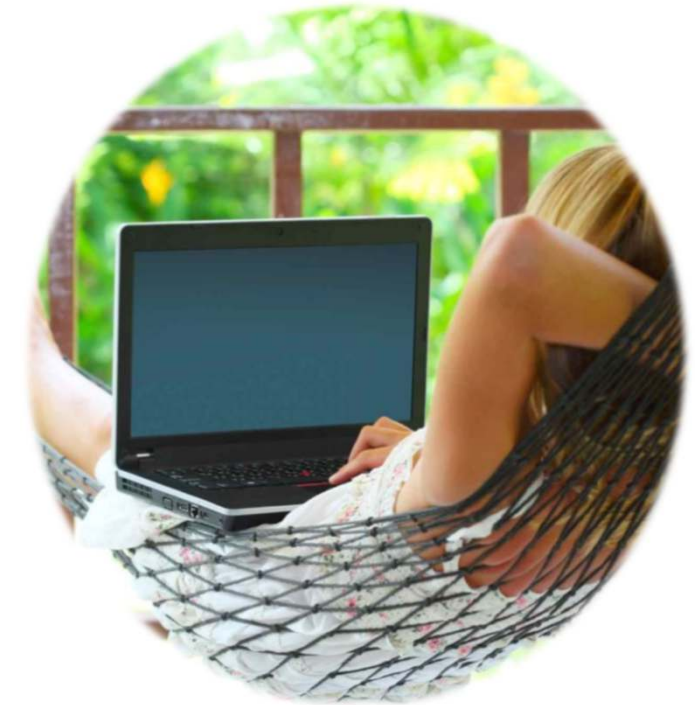


Work from Home is dead, long live Work from Anywhere

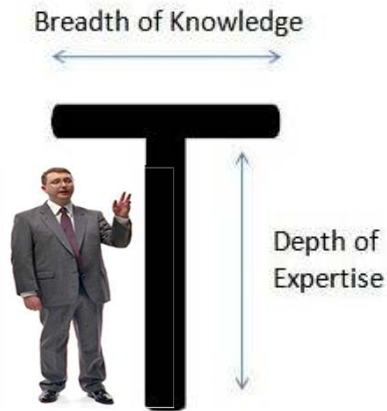
work is no longer a place, it is what you do and how you do it

“Work From Home” is *terrible branding*, it fails to communicate the *fundamental changes it brings*:

1. Organizations learned to trust employees work ethics
2. Think and work exactly where employees are personally most productive
3. Employee's ability to choose where they live (maybe in Rosh Pina, Moshav in Arava)
4. Organizations can hire the best individual for the job not considering where he lives, hire people that don't live in gush DAN

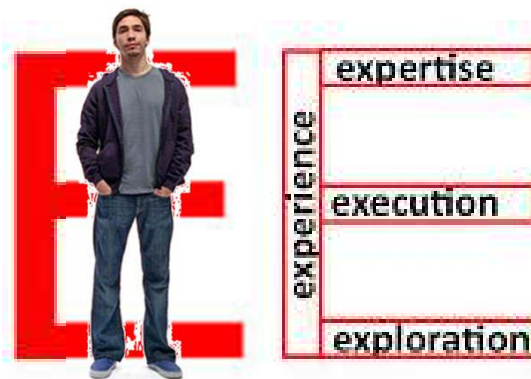


Which Letter-shaped will Future Employees and Leaders be?

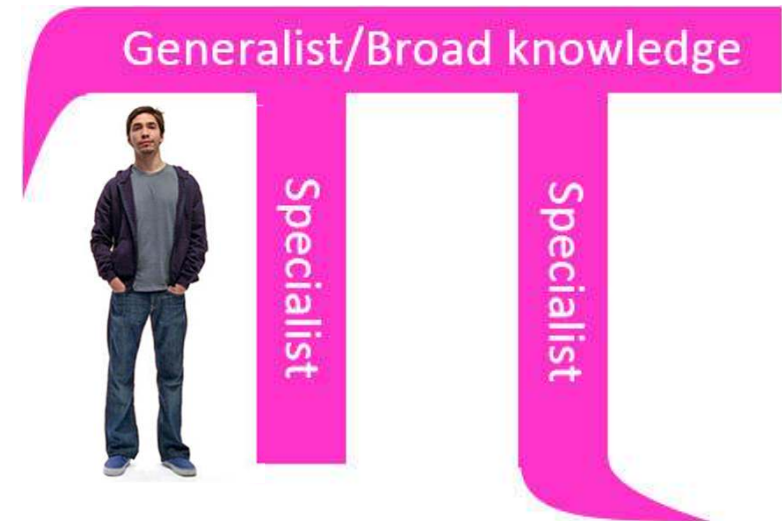


“T-Shaped” (20th century HR) refers to an employee who has a *thorough knowledge and strong skill-set in one area, but can also work beyond it* and can collaborate in numerous other disciplines or fields

E-shaped managers (21st century) have a combination of 4 E's (*Experience, Expertise, Exploration and Execution*) that are really essential in the current business world.



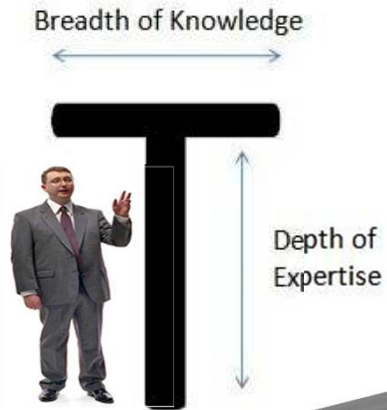
In the future, (202X) organizations will depend more and more on such *multifaceted workers*, people with skills that resemble the Greek letter pi (π).



This group will have a *broad mastery of general management skills atop a (at least 2) spikes of deep functional or domain expertise.*

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Which Letter-shaped will Future Employees and Leaders be?



“T-Shaped” (20th century HR) refers to an employee who has a *thorough knowledge and strong skill-set in one area, but can also work beyond it* and can work in numerous areas.

In the future, (202X) organizations will depend more and more on such *multi-skilled workers*, people with skills that can be compared to the Greek letter pi (π).

THE PEN IS MIGHTIER THAN THE SWORD

E-shaped managers (21st century) have a combination of 4 E's (*Experience, Expertise, Exploration and Execution*) that are really essential in the current business world.

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Post-covid 19 IT needs a new type of CIO



in order to remain relevant and competitive, post-covid 19, IT must embrace two roles:

1. **keepers** of infrastructure
2. **facilitators** of business value

Keepers of Infrastructure

What should the IT function prioritize as KEEPER OF INFRASTRUCTURE over the next three years?



Top priorities:

- *Providing a clear roadmap for legacy assets/ technology*
- *Maintaining an Information Security & Privacy Strategy*
- *Providing tools that are needed for AI/ML/DL and other data uses*
- *Embracing use of microservices, continuous delivery and DevOps*
- *Ensuring system interoperability, scalability across multiple applications and platforms*
- *Providing Serverless Computing, Containers and Low Code Platforms*
- *Reducing the data center by migrating to the cloud when optimal (hybrid computing)*

Infrastructure Predictions (comparisons) for 2020

Forbes; Jan 2, 2020



Steve Andriole
Professor of Business Technology
Villanova School of Business

	STKI *	Gartner	Splunk	McKinsey
Automation	✓	✓	✓	✓
Hybrid IT Versus DR	✓	✓		
Scaling DevOps Agility	✓	✓		✓
Cyber Threats/Intel/Deepfakes	✓		✓	✓
IOT		✓	✓	✓
AI/ML/NLP	✓		✓	✓
Data	✓	✓	✓	
Mainstream Cloud/As-a-Service	✓	✓	✓	
Next Gen Networking	✓	✓		
Blockchain Beyond Crypto	✓		✓	
Open Source	✓			✓
White Box/Asian Hardware				✓
Immersive/Consumer UX/AR/VR		✓	✓	
Democratization of IT	✓	✓		
Hybrid Digital Infrastructure Management (HDIM)/Container-First Architectures	✓		✓	✓

* not in original article

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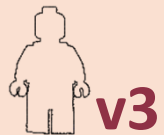
Digital Facilitators of Business Value

What should the IT function prioritize to FACILITATE BUSINESS VALUE over the next three years?

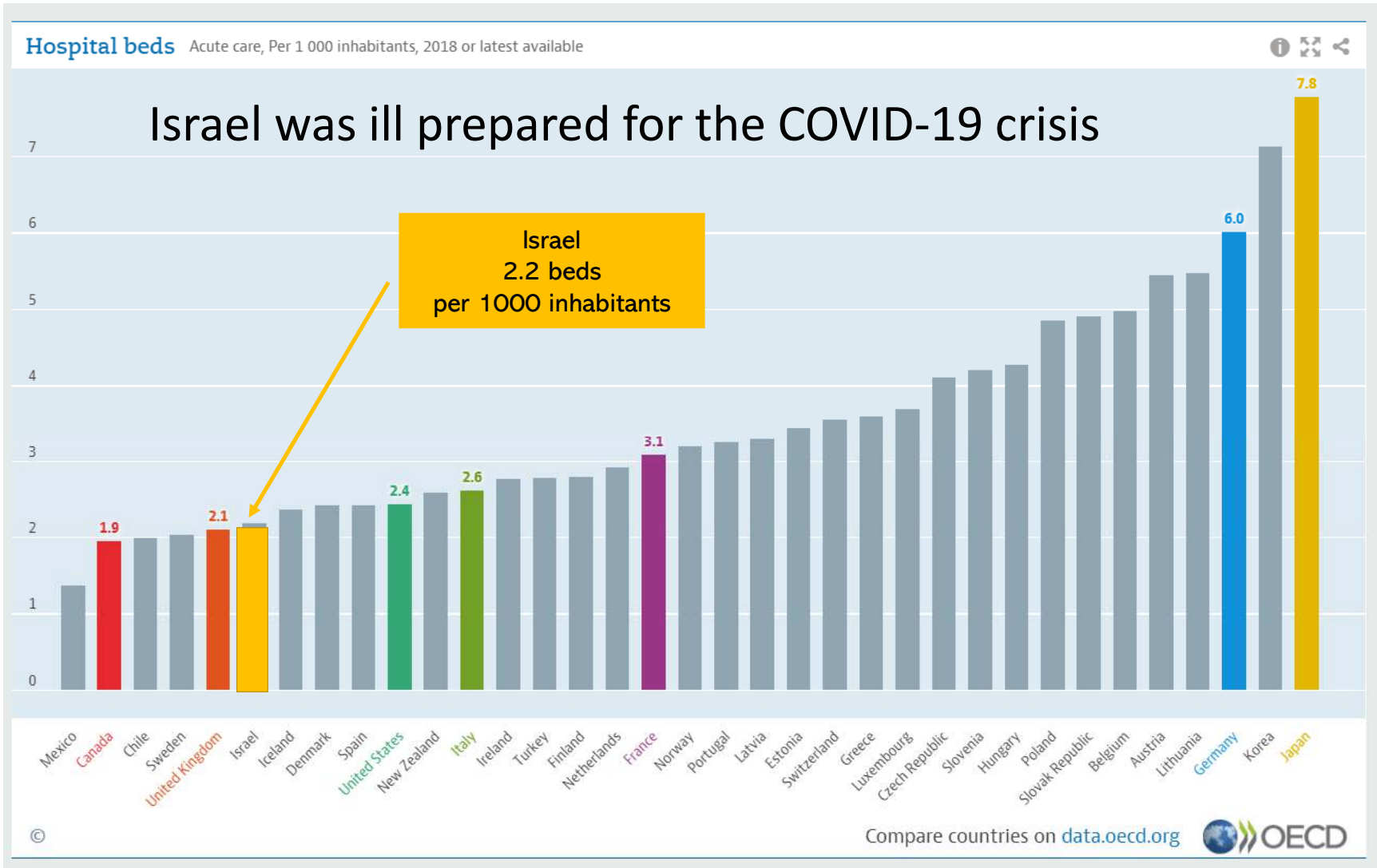
Post COVID 19 Transformation



Economic Outlook for Israel 2Q 2020 During Coronavirus Crisis



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Survey of Businesses in Israel during the Coronavirus Crisis (2nd Wave)

אומדנים מסקר "מצב התעסוקה בעת התפשטות הנגיף קורונה" 30-31.3.2020

	סה"כ מועסקים (number of employees)	אחוז העסקים המאפשרים עבודה מהבית (enterprises %) (allowing work at home)	אחוז העובדים מהבית היום (working %) (from home)	אחוז המגיעים לעבודה היום (working %) (in offices)	אחוז העובדים בחל"ת בעקבות נגיף הקורונה (of employees in %) (nonpayed vacation)	אחוז המפוטרים בעקבות נגיף הקורונה (of employees fired %)
סך הכל (total)	588,736	71.0%	32.9%	39.5%	13.6%	1.6%
תעשייה ללא תעשייה עלית (low tech)	227,293	46.0%	9.4%	53.9%	19.0%	0.6%
הייטק (high tech)	282,973	98.4%	49.9%	32.1%	9.4%	2.9%
שירותים פיננסיים ושירותי ביטוח (finance & Insurance)	78,471	100.0%	42.2%	22.9%	12.6%	0.0%

הלשכה המרכזית לסטטיסטיקה
Central Bureau of Statistics
دائرة الإحصاء المركزية

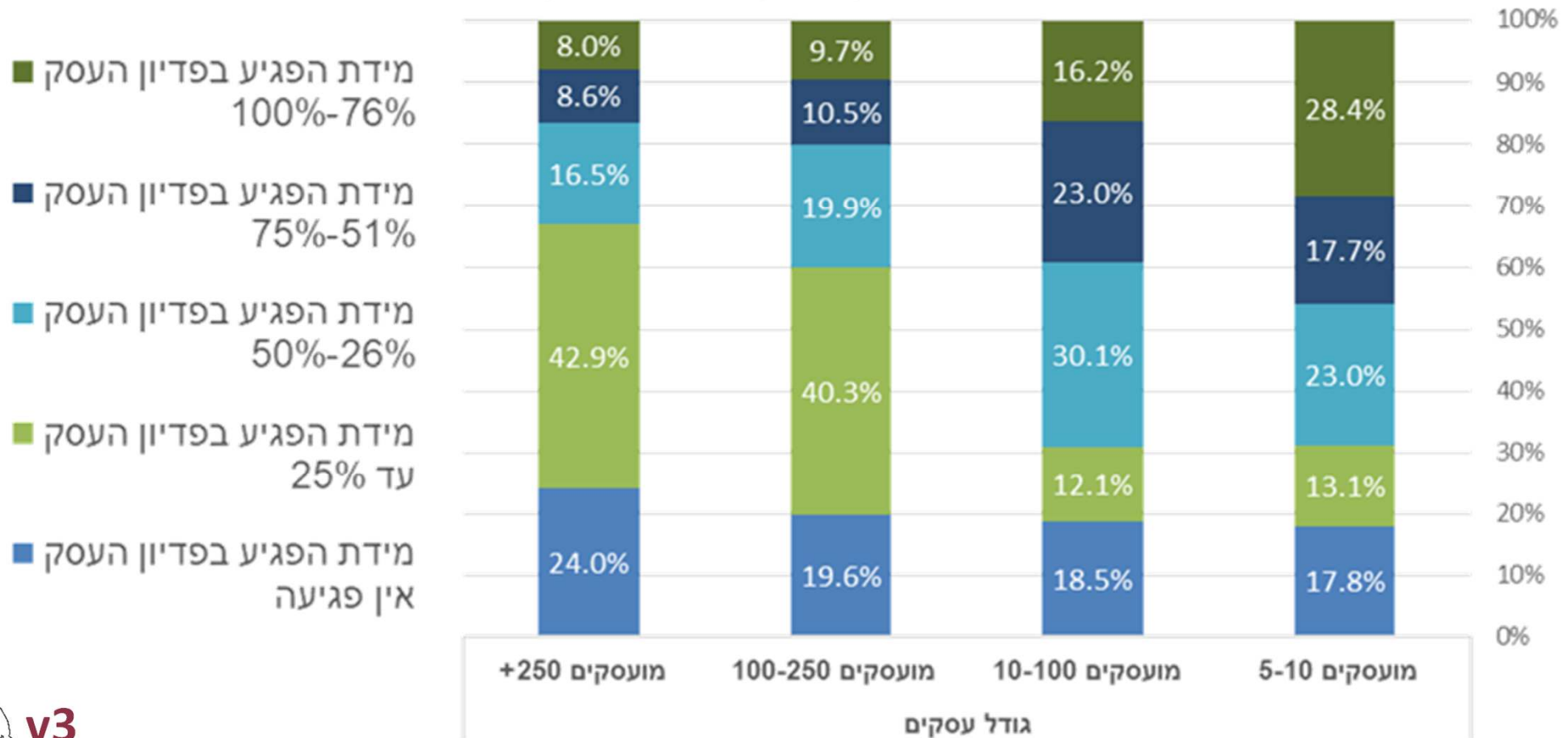


תוצאות סקר מצב העסקים בעת התפשטות נגיף הקורונה (גל 2) 30-31.3.2020

Survey of Businesses in Israel during the Coronavirus Crisis (2nd Wave)



מידת הפגיעה בפדיון העסק, לפי גודל עסק



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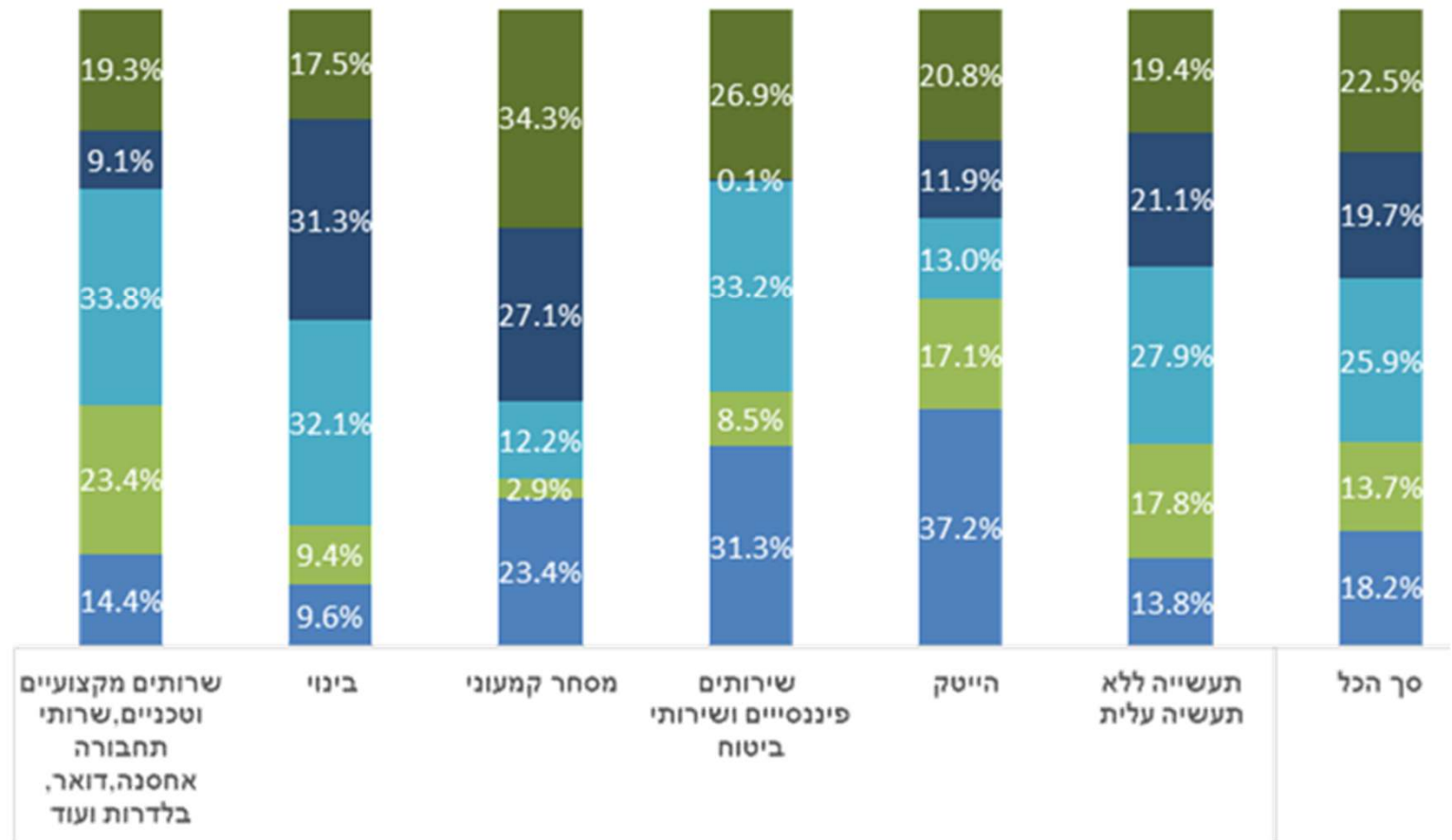
30-31.3.2020 תוצאות סקר מצב העסקים בעת התפשטות נגיף הקורונה (גל 2)

Survey of Businesses in Israel during the Coronavirus Crisis (2nd Wave)

מידת הפגיעה בפדיון העסק, לפי ענף כלכלי



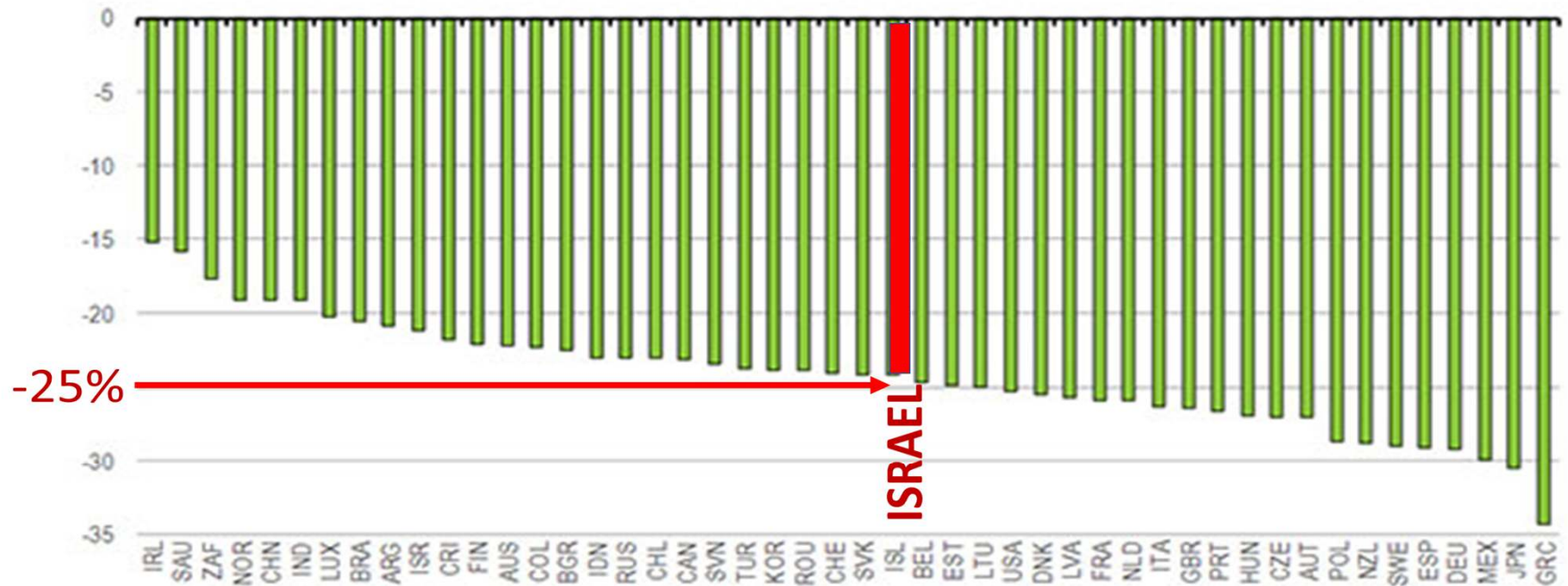
- מידת הפגיעה בפדיון העסק
100%-76%
- מידת הפגיעה בפדיון העסק
75%-51%
- מידת הפגיעה בפדיון העסק
50%-26%
- מידת הפגיעה בפדיון העסק
עד 25%
- מידת הפגיעה בפדיון העסק
אין פגיעה



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The potential initial impact on activity of partial or complete shutdowns on activity in selected advanced and emerging market economies

Per cent of GDP at constant prices



Note: See notes to Figure 1. The sectoral data are on an ISIC rev. 4 basis in all countries apart from Korea, New Zealand and Brazil, where national data are used. The calculations are based on an assumption of an economy-wide shutdown, rather than a shutdown confined to particular regions only.

Source: OECD Annual National Accounts; OECD Trade in Value-Added database; Statistics Korea; Statistics New Zealand; Brazilian Institute of Geography and Statistics; and OECD calculations.



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Economic Indicators

Research Department Staff Forecast for 2020–2021

(rates of change, percent, unless stated otherwise)

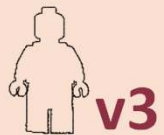
	2019 ^a	Bank of Israel forecast for 2020	Change from the previous forecast	Bank of Israel forecast for 2021	Change from the previous forecast
GDP	3.5	-5.3	-8.2	8.7	5.5
Private consumption	3.9	-5.0	-7.5	9.5	7.0
Fixed capital formation (excluding ships and aircraft)	1.2	-10.5	-10.0	4.5	1.5
Public sector consumption (excluding defense imports)	3.5	5.0	2.5	-0.5	-3.0
Exports (excluding diamonds and start-ups)	5.7	-15.0	-19.5	15.5	11.5
Civilian imports (excluding diamonds, ships, and aircraft)	4.5	-13.5	-14.5	9.0	6.5
Unemployment rate ^b	3.3	6.0	2.7	5.5	2.2
Inflation rate ^c	0.4	-0.8	-1.8	0.9	-0.5
Bank of Israel interest rate ^d	0.25	0-0.1		0-0.25	

The decisions reached in Israel to halt the spread of the coronavirus had a significant impact on GDP and employment. The impact on the various industries in the economy are not uniform, with some experiencing a complete halt of activity.

Fallout from “technology transformations” POST COVID -19



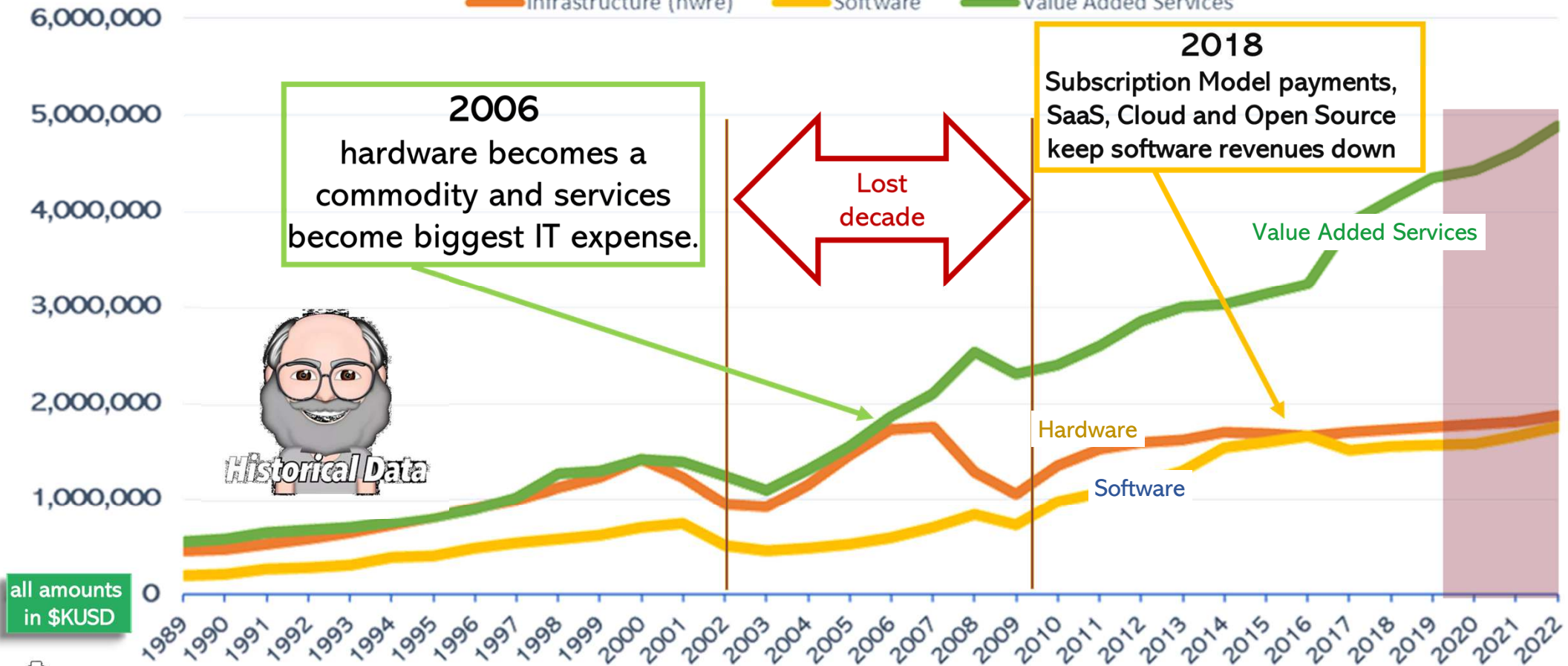
During 2020 Israeli Institutions will have to deal with
3 major Black Swan* Events
IT forecasted markets, budgets and STKI index
(next pages) are based on
interviews/ research
(that includes a higher degree of uncertainties than usual)



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IT Market in Israel 1989-2022

Infrastructure (hwre) Software Value Added Services



all amounts in \$KUSD

Historical Data

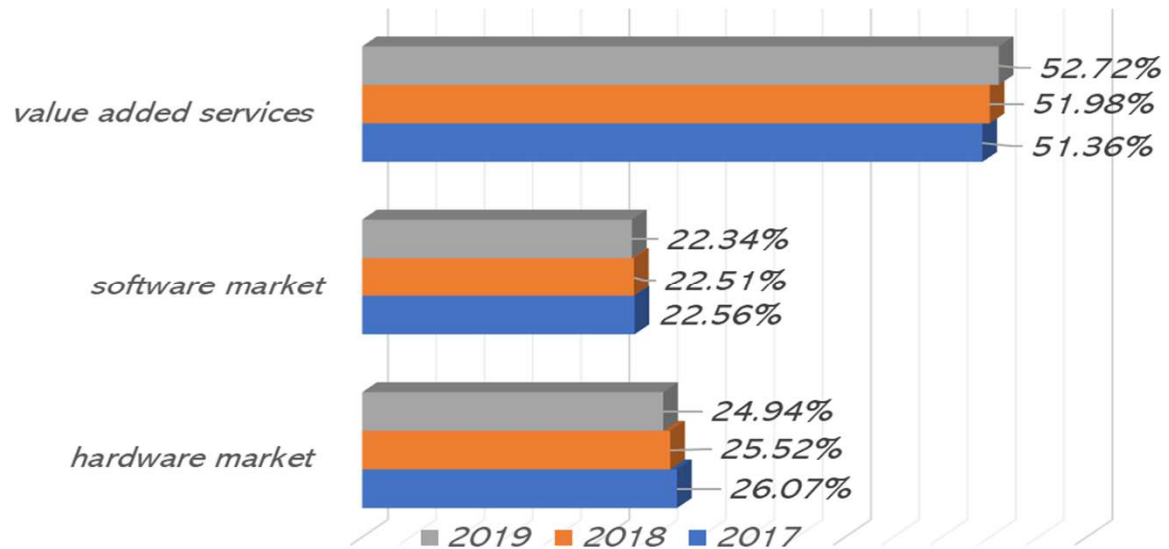


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STKI Study (historical data)					
	2017	changes	2018	changes	2019
hardware market	1,688,000	2.73%	1,734,150	1.87%	1,766,500
software market	1,460,800	4.72%	1,529,800	3.46%	1,582,800
value added services	3,325,200	6.24%	3,532,600	5.72%	3,734,800
TOTAL	6,474,000	4.98%	6,796,550	4.23%	7,084,100

Percent of Total IT Spending






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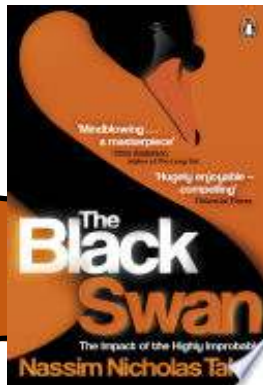
3 major Black Swan* Events in 2020



- 1  **Three** parliamentary **elections** in one year
(*no new budgets combined with a big deficit and public expenditure cuts*)
- 2  **COVID19** (lockdown) effects on public and private enterprises (*not only black swan but a rogue wave and inflection point*)
- 3  **Cloud vendors** with “**local**” data and processing residency enterprises (*not only black swan but an inflection point*)

*Event that is beyond prediction at the point it occurred and usually comes with severe consequences.

They are rare and unpredictable, but it is important to try to anticipate such events and make plans



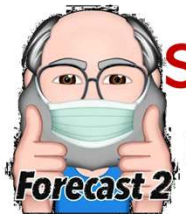
The question facing businesses and IT now is how long will those behaviors last and which ones are permanent?

By the end of 2020, we expect outcomes to diverge depending on the continued severity of the pandemic and its impact on businesses and consumers.

STKI IT market study looks at two “POST-COVID19 Transformations”:



Moderate case (forecast 1) considers effects to the Israeli IT market if the pandemic subsides during Q32020



Severe case (forecast 2) looks at the Israeli IT Market if concerns persist until there is a vaccine in 2021 or 2022

Chocolate Cake: Change vs Transformation

60

Ingredients of a cake are on a table.

- Someone **moves them** around.
- We put them **back to where they were**.

we have just
EXPERIENCED CHANGE.



Someone **bakes the cake**.

- No matter how we **“attack” the cake**, we **cannot** get the ingredients back.

we have just
**EXPERIENCED
TRANSFORMATION**



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FORECAST ONE

Assumes that the main part of the restrictions intended to prevent the further spread of the virus will be lifted gradually by the end of June, so that in the second half of the year the economy will return to activity without limitations on movement or employment, and will switch to a path of growth.

Some of the lessons the crisis taught enterprises will NOT be implemented in the immediate future and will be postponed.

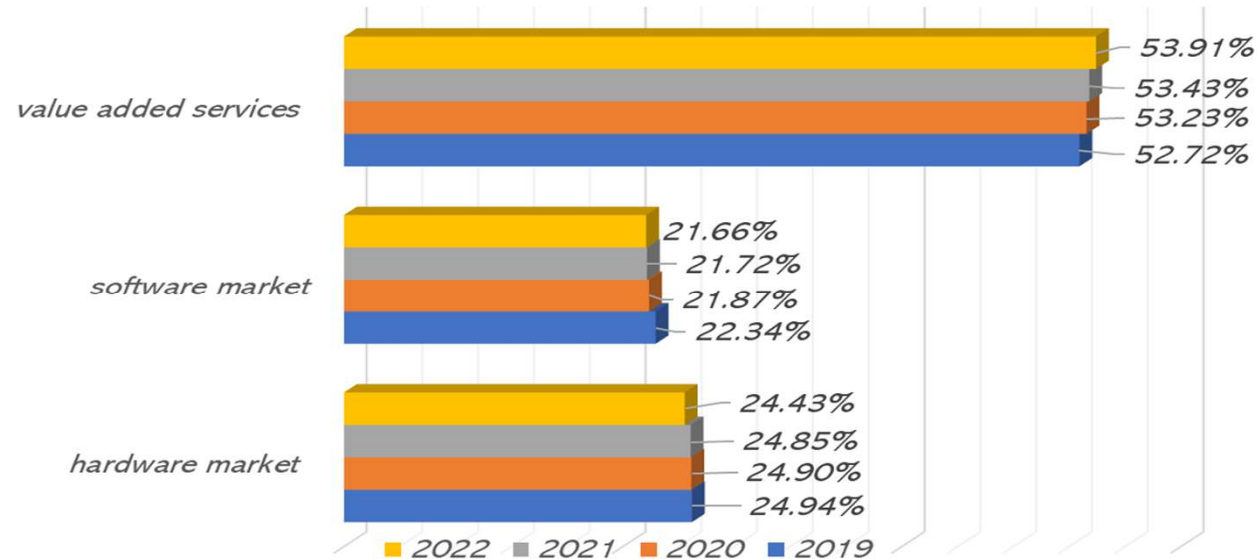
- Most scheduled activity/projects activity will be continued
- Purchasing hardware and software products; enterprises will replenish what was needed or used during the crisis but at a lower cost.
- Projects (most) will restart where they were stopped or slowed during the crisis,



all amounts
in \$KUSD

FORECAST VERSION ONE						
	changes	2020	changes	2021	changes	2022
hardware market	1.24%	1,788,450	4.67%	1,872,000	3.10%	1,930,100
software market	-0.75%	1,571,000	4.16%	1,636,400	4.61%	1,711,800
value added services	2.37%	3,823,350	5.28%	4,025,250	5.84%	4,260,200
TOTAL	1.39%	7,182,800	4.88%	7,533,650	4.89%	7,902,100

Percent of Total IT Spending



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FORECAST TWO

Assumes that the steps taken will be temporary, but with **year long uncertainty** . Some restrictions will be lifted but some will be implemented again. All based on the specifics of the contagion and the load placed on hospital infrastructures in Israel.

Enterprises will slow purchasing of hardware and software and will look into cloud solutions (moving also from CAPEX to OPEX)

Lessons from the crisis :

application usability, user friendly m-commerce, amazon like ecommerce solutions, better internet connections, work from home solutions, cloud call centers, easy video conferencing (WhatsApp & Zoom effect)and many others. Most projects will be stopped, and new solution will be defined.

FORECAST TWO

3

The third phase will begin around August/ September and it will be a long period (12-18 months) of new rules and constraints.

2

The second phase began the 23 of May when (under strict rules) work and school re-open but will go back and forth between opening and closing times.

1

For Israeli businesses, the first phase began abruptly the 11 of March and has now largely passed. The period was characterized by the shift to working from home and required IT to step in and provide adequate access to equipment, tools, and internet infrastructure.



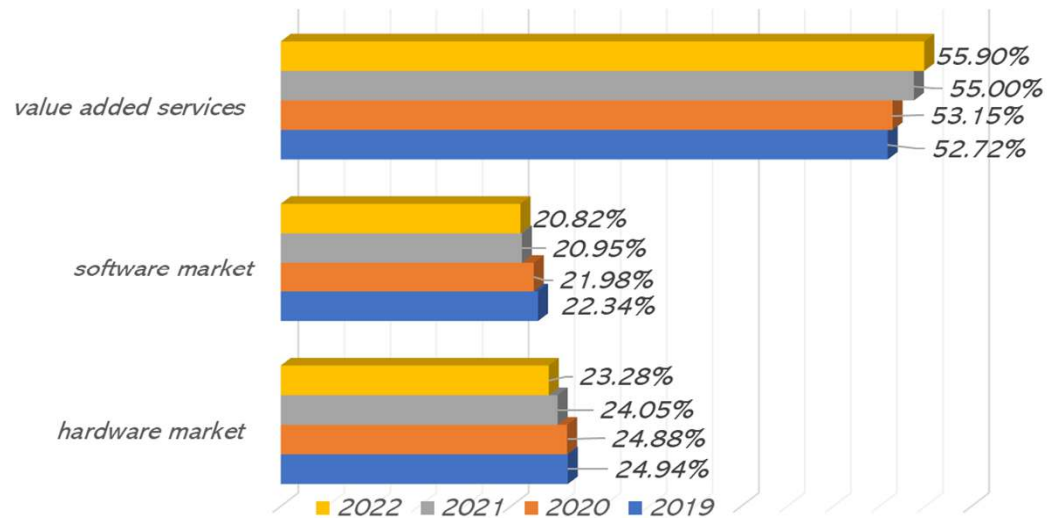
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all amounts
in \$KUSD

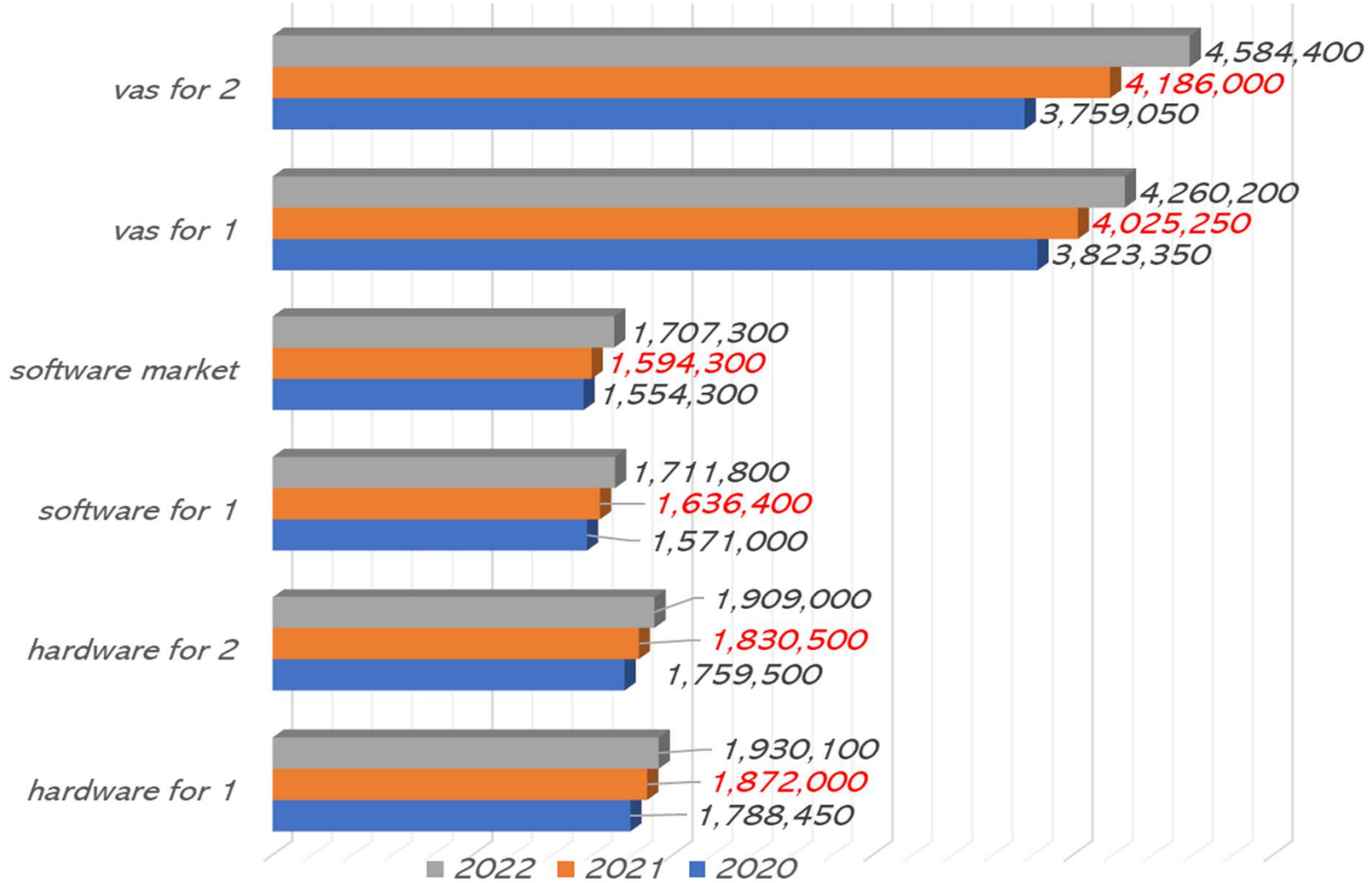
FORECAST VERSION TWO							
	2019	changes	2020	changes	2021	changes	2022
hardware market	1,766,500	-0.40%	1,759,500	4.04%	1,830,500	4.29%	1,909,000
software market	1,582,800	-1.80%	1,554,300	2.57%	1,594,300	7.09%	1,707,300
value added services	3,734,800	0.65%	3,759,050	11.36%	4,186,000	9.52%	4,584,400
TOTAL	7,084,100	-0.16%	7,072,850	7.61%	7,610,800	7.75%	8,200,700

Percent of Total IT Spending



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Comparison Forecast 1 and Forecast 2 (2020-2022)



For 1



For 2



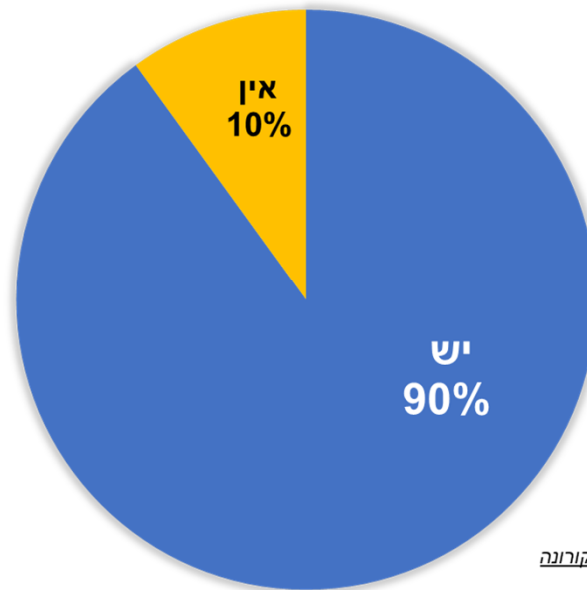
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Some info about what happened 1H2020

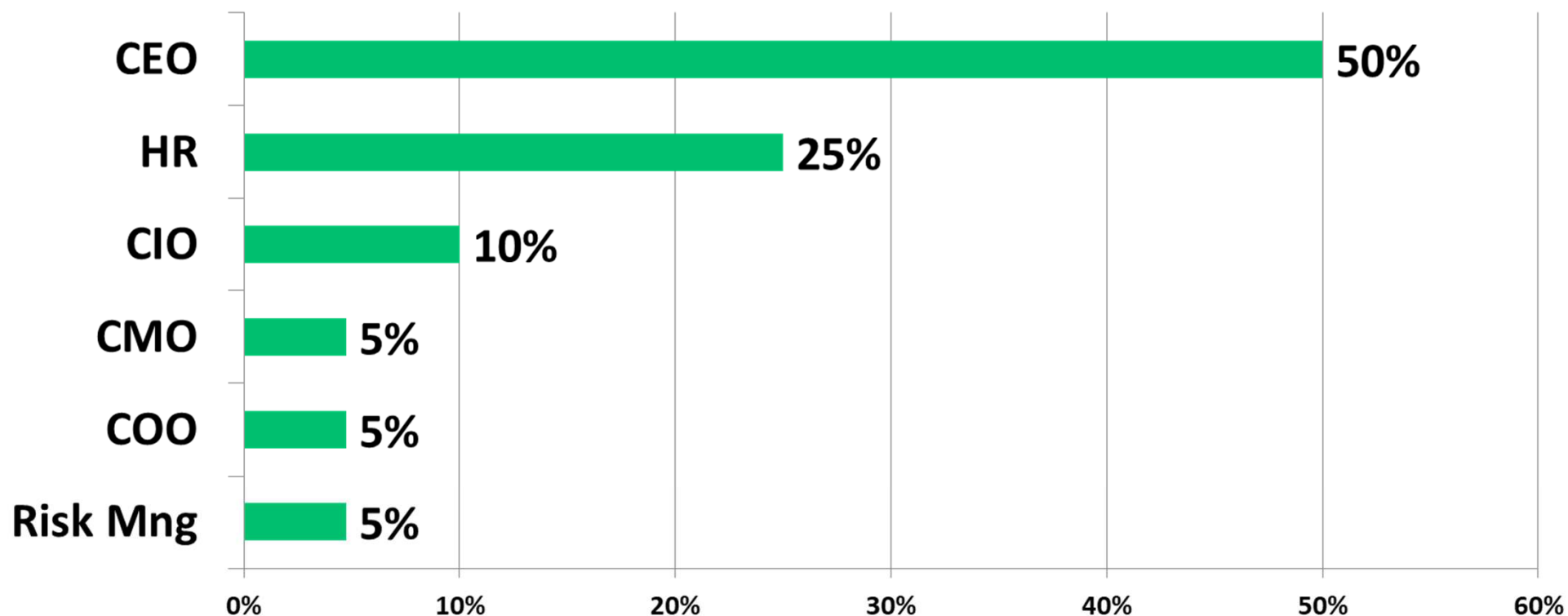


האם קיימת בארגון פונקציה, אשר מנהלת את התארגנות העובדים
היומיומית בתקופת משבר הקורונה?



המקור: סקר שוק ישראלי בצל משבר הקורונה
STKI 2020

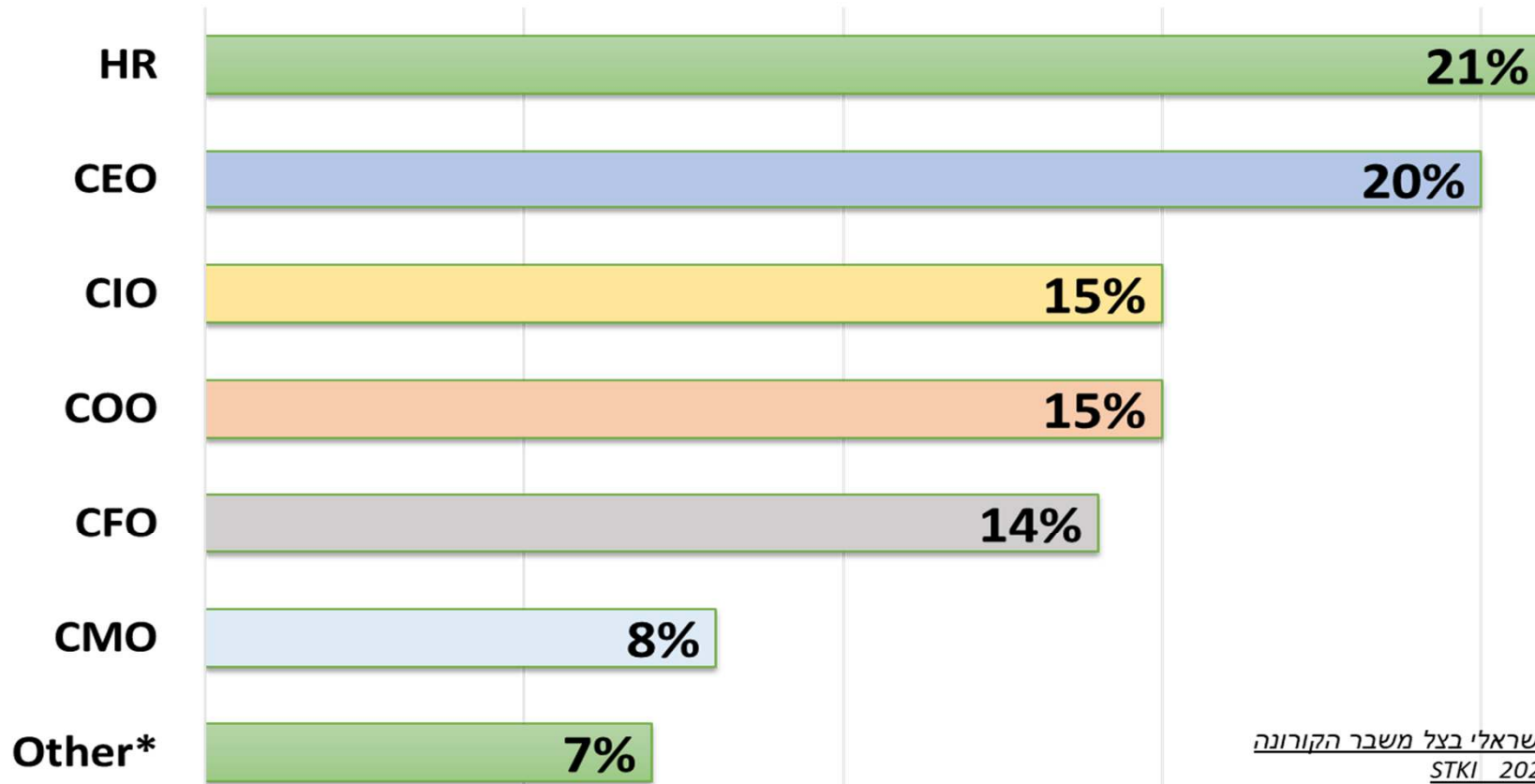
מי עומד/ת בראש וועדת התארגנות הארגון בתקופת הקורונה ?



המקור: סקר שוק ישראלי בצל משבר הקורונה
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מי המשתתפים באותה הוועדה (בחירה מרובה)

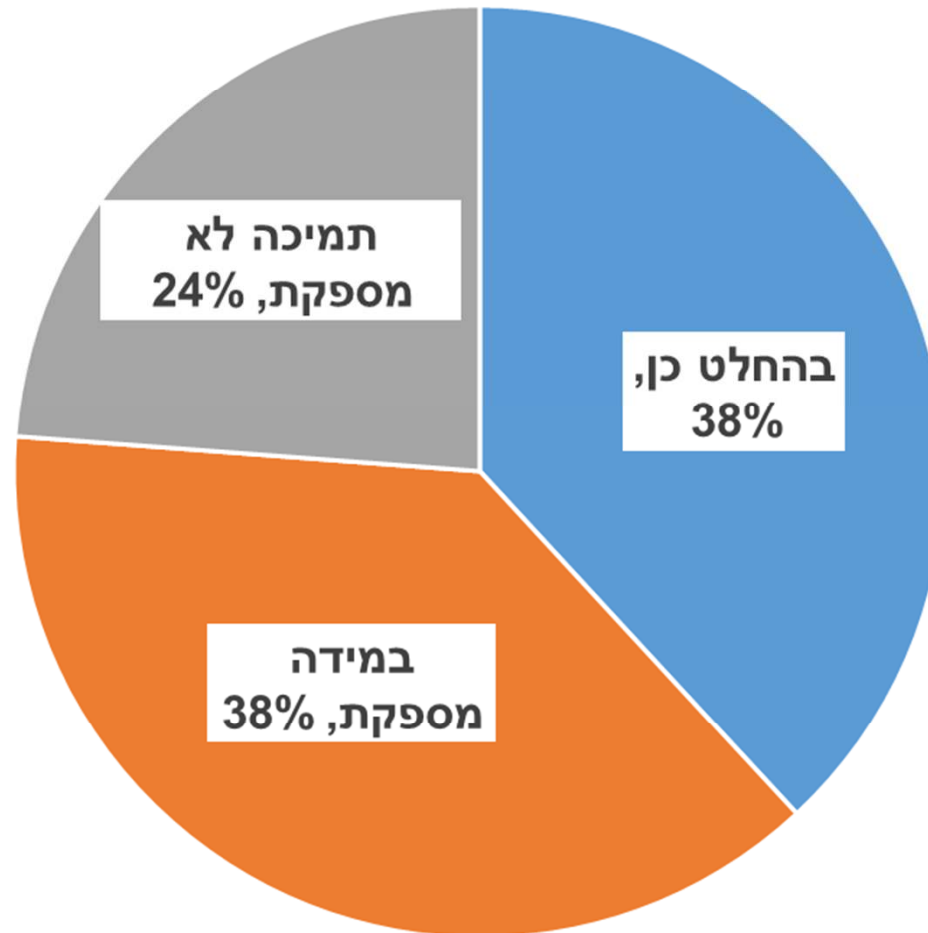


המקור: סקר שוק ישראלי בצל משבר הקורונה
STKI 2020

* חברי הנהלה, יועץ משפטי,
קב"ט, CRO, CTO

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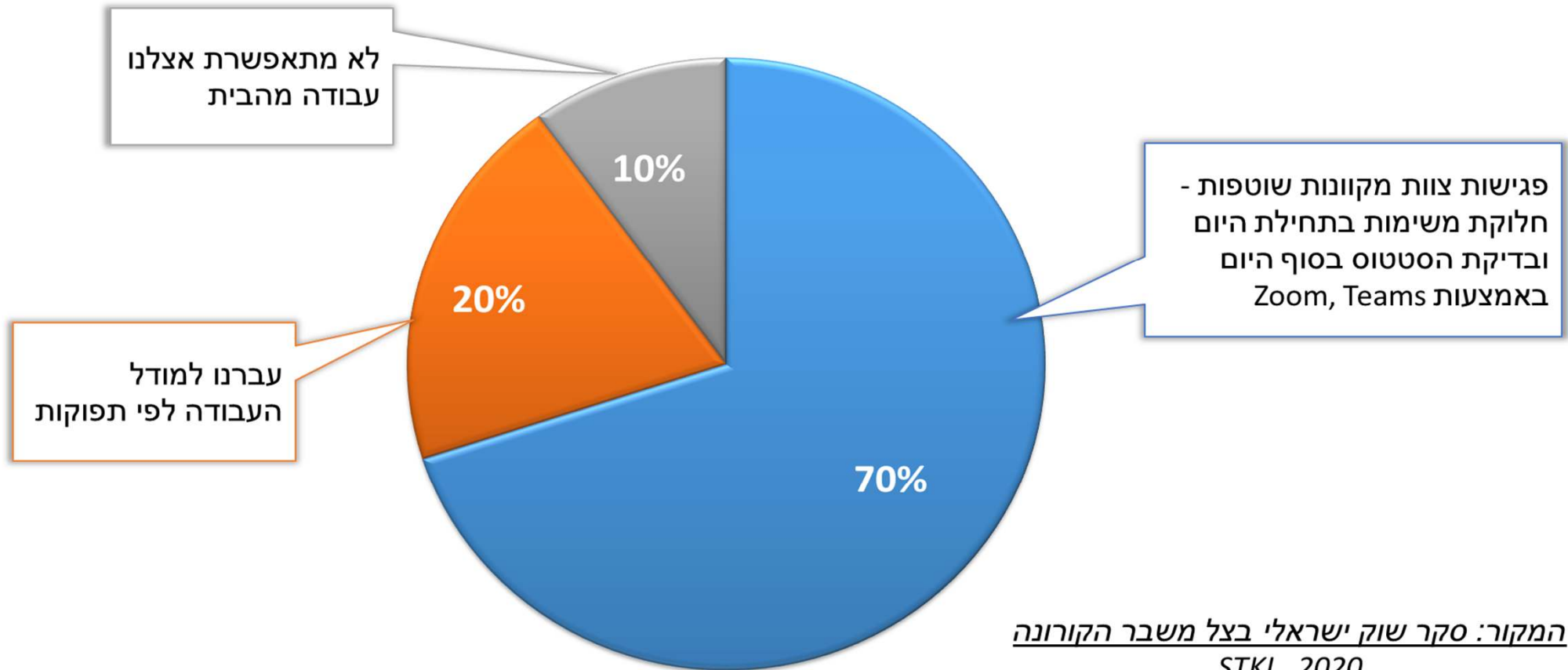
האם את/ה מרגיש/ה שה-HR הארגוני נותן לך תמיכה משביעת רצון בתקופה זו?



המקור: סקר שוק ישראלי בצל משבר הקורונה
STKI 2020

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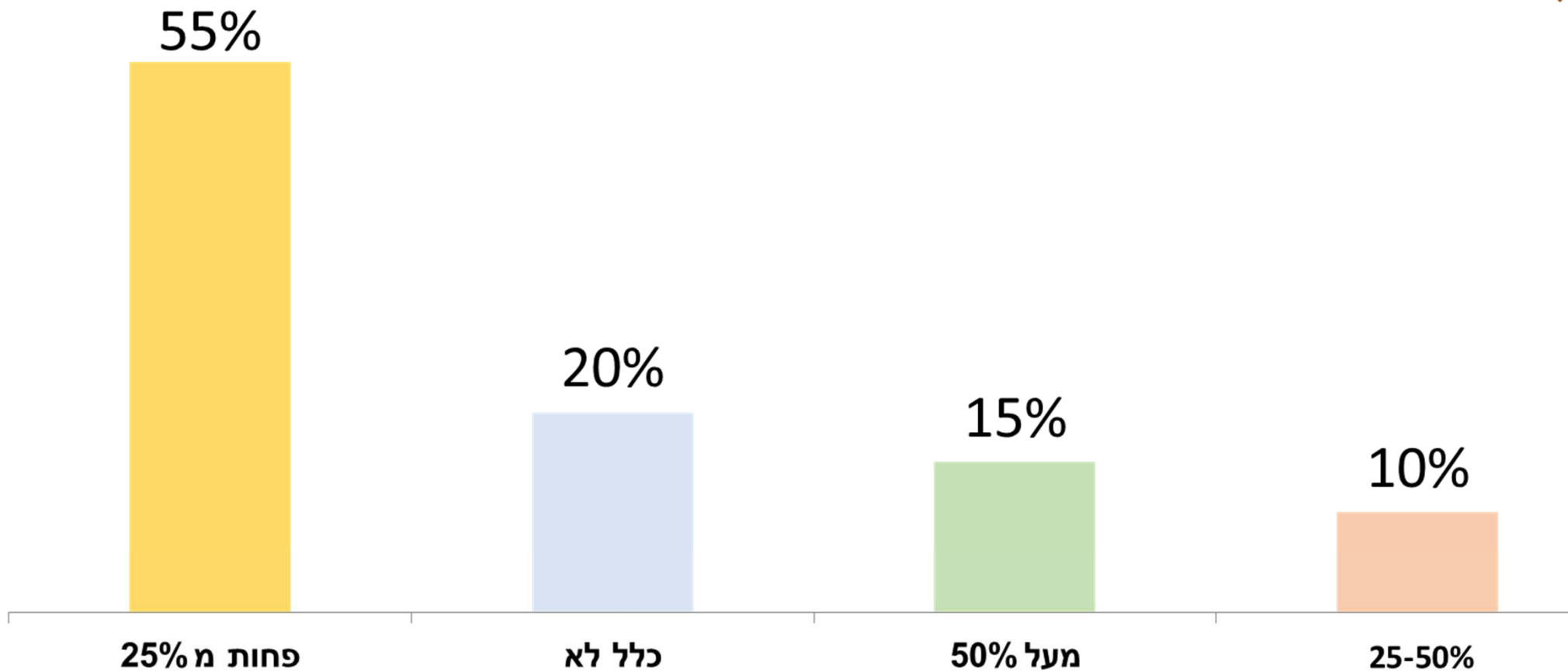
בהנחה שאתם מנהלים כעת צוות פרויקטאלי מבוזר, כיצד לדעתך ניתן לנהל מרחוק אנשי צוות כזה בצורה מיטבית?



המקור: סקר שוק ישראלי בצל משבר הקורונה
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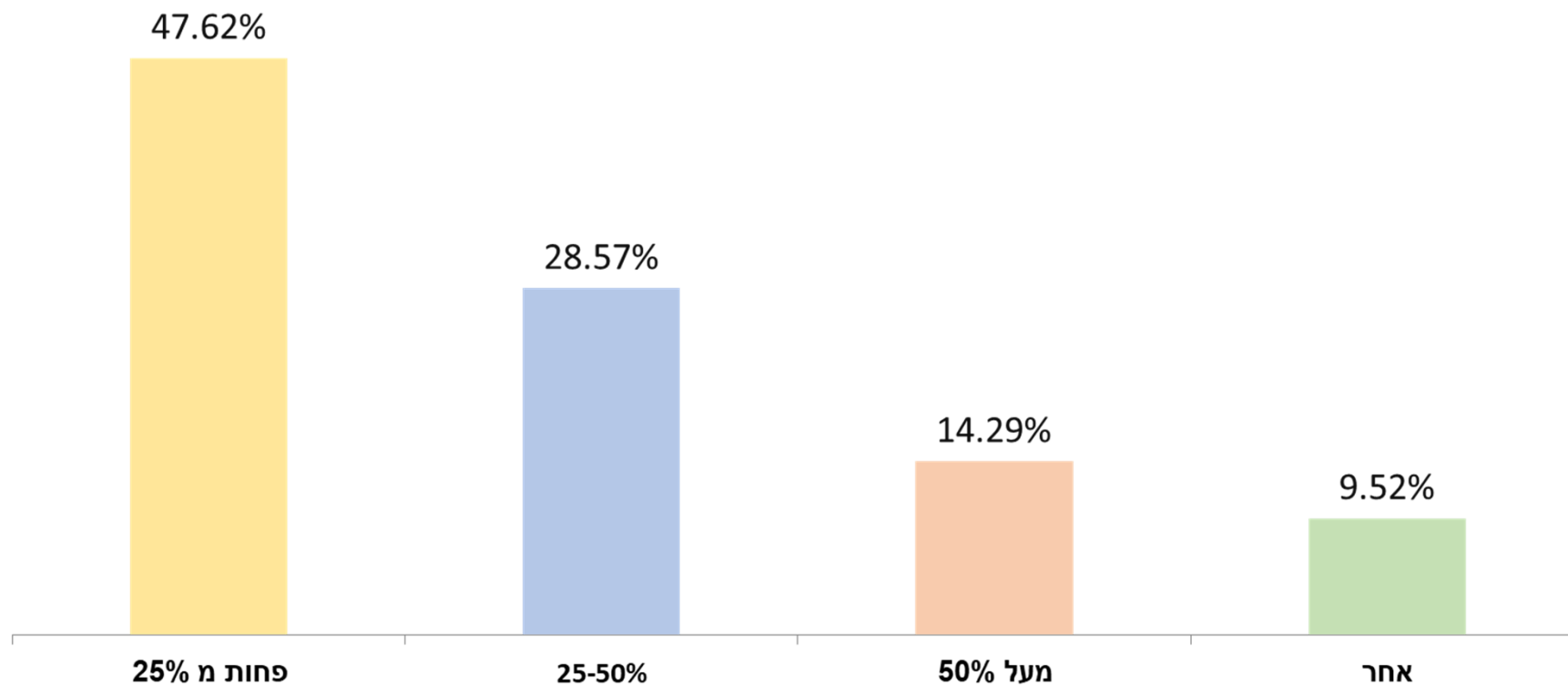
מה אחוז פרויקטי ה-IT שנסגרו/ הוקפאו עקב המצב?



ר: סקר שוק ישראלי בצל משבר הקורונה
STKI 2020

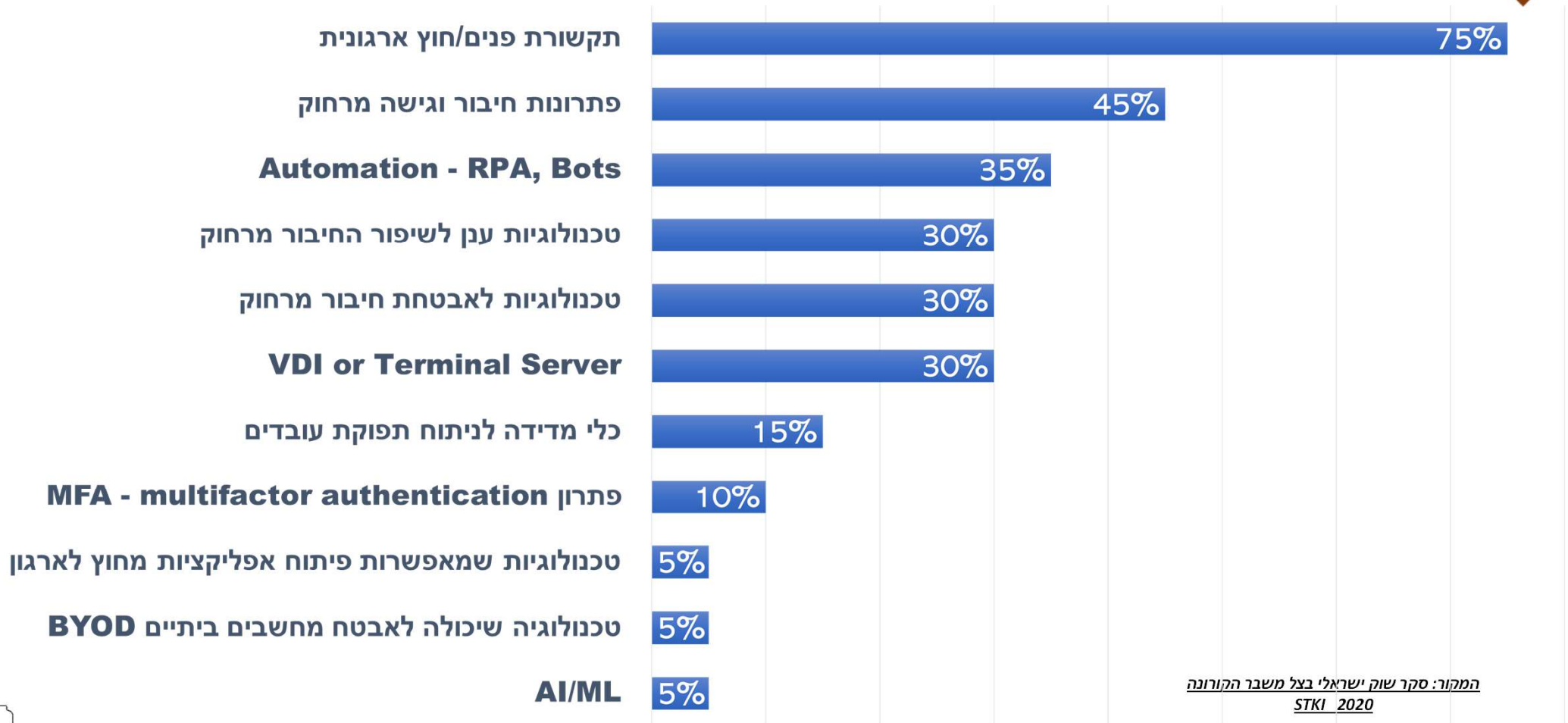
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מהו אחוז העבודה המתקיימת כיום במודל Cost Plus (עובדים חיצוניים על פי שעה)



המקור: סקר שוקי ישראל בצל משבר הקורונה
STKI 2020

האם עקב המצב, האצתם בחינה של טכנולוגיות חדשות, ואיזה?



המקור: סקר שוק ישראלי בצל משבר הקורונה
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IT Budgets according to Industries



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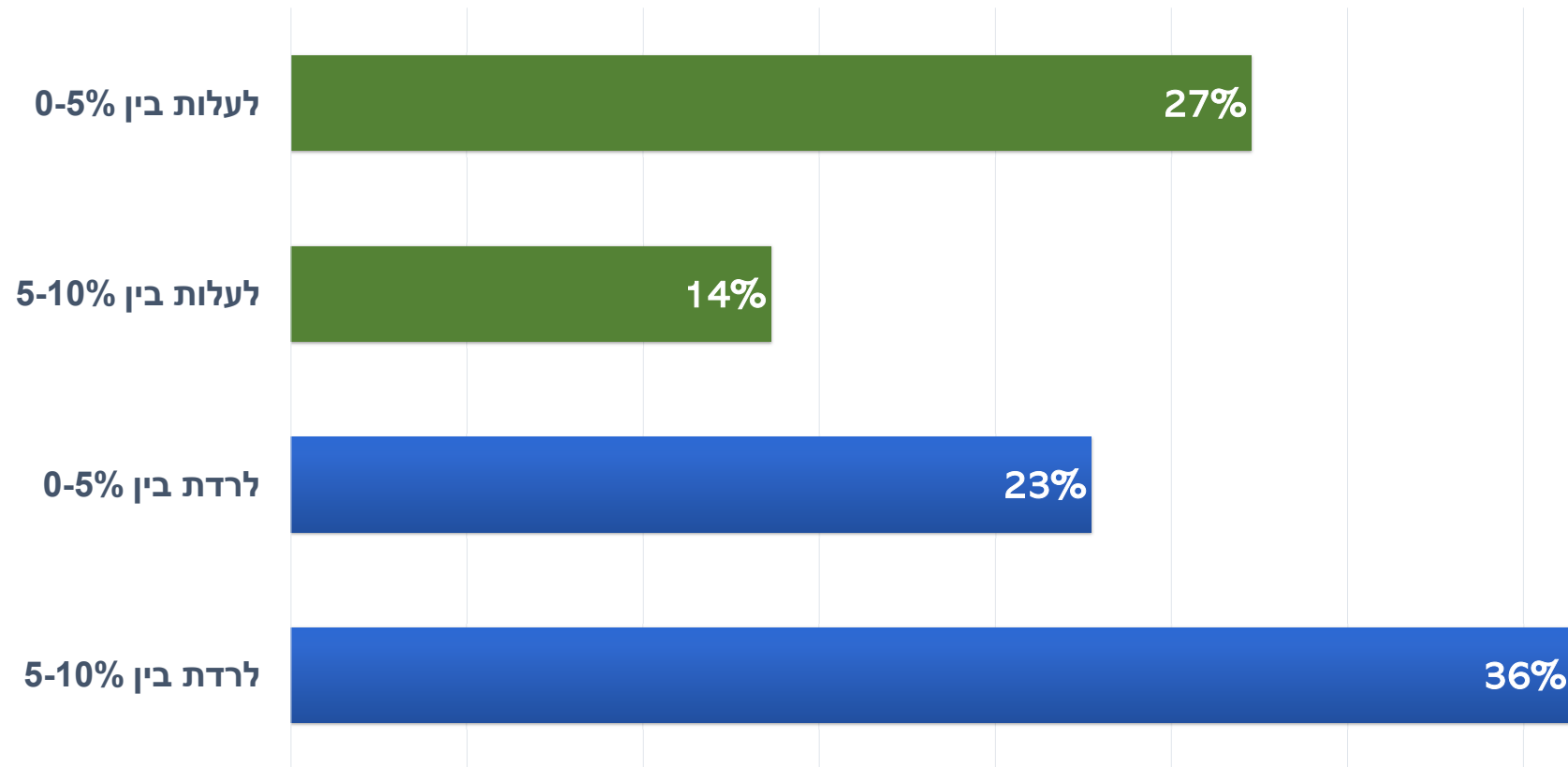


Number of Companies (paying employee taxes) in Israel

76

number of employees v1	2016	2017		number of employees v1	2018	2019			number of employees v1		
	number of companies (paying taxes)	number of companies (paying taxes)	% of TOTAL		number of companies (paying taxes)	number of companies (paying taxes)	& of TOTAL	subtotals			
251+	1,622	1,796	0.66%	251+	1,711	1,696	0.60%	4,434		over 101	
101-250	2,752	2,817	1.03%	101-250	2,708	2,738	0.97%				
21-100	17,995	18,470	6.74%	51-100	4,725	4,849	1.71%	4,849	4,849	51-100	
6-20	52,265	52,970	19.33%	10-50	38,857	38,760	13.68%	38,760	273,970		up to 50
up to 5	192,641	197,928	72.24%	up to 9	231,609	235,210	83.04%	235,210			
totals	267,275	273,981		totals	279,610	283,253			totals		
	ACCORDING TO BITUACH LEUMI 2/2017	ACCORDING TO BITUACH LEUMI 2/2018			ACCORDING TO BITUACH LEUMI 2/2019	ACCORDING TO BITUACH LEUMI 2/2020					

האם לדעתך, עקב המשבר הנוכחי במשק, תקציב הטכנולוגיות בארגונך בשנת 2020 צפוי:



המקור: סקר שוק ישראלי בצל משבר הקורונה
STKI_2020

IT Budgets according to INDUSTRIES

all amounts in M \$ USD

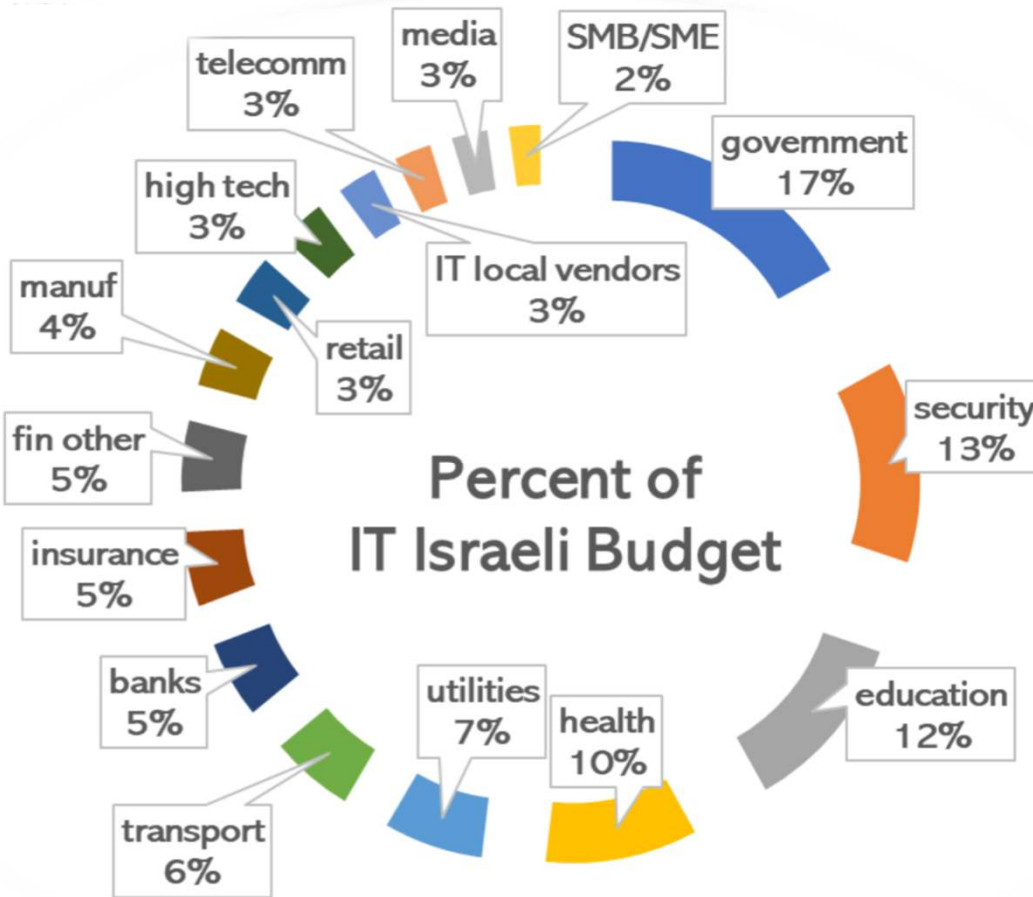
78

IT BUDGETS (opex/capex): includes *some* internal expenses

industry	change from 2016	Budgets 2017	change from 2017	Budgets 2018	change from 2018	Budgets 2019	change from 2019	Budgets 2020	% total	Market size	% total	industry
government	2.00%	\$1,530	6.54%	\$1,630	5.95%	\$1,727	-17.00%	\$1,433	17%	\$2,622	31.06%	public
security	7.66%	\$506	3.75%	\$525	2.29%	\$537	3.50%	\$556	7%			
education	3.85%	\$270	8.15%	\$292	1.03%	\$295	-2.00%	\$289	3%			
health	4.69%	\$335	4.48%	\$350	-2.86%	\$340	1.00%	\$343	4%			
utilities	-7.84%	\$235	-8.51%	\$215	-2.33%	\$210	2.00%	\$214	3%	\$623	7.38%	utilities/ transport
transport	-4.41%	\$325	4.62%	\$340	7.35%	\$365	12.00%	\$409	5%			
banks	8.13%	\$865	6.36%	\$920	10.87%	\$1,020	9.00%	\$1,112	13%	\$2,021	23.94%	financial
insurance	-1.25%	\$395	2.53%	\$405	3.70%	\$420	4.00%	\$437	5%			
fin other	7.72%	\$265	16.98%	\$310	29.03%	\$400	18.00%	\$472	6%			
manuf	-1.12%	\$880	-0.57%	\$875	-1.71%	\$860	-2.00%	\$843	10%	\$1,077	12.76%	manuf/ retail
retail	0.00%	\$230	3.48%	\$238	-3.36%	\$230	2.00%	\$235	3%			
high tech	1.85%	\$825	2.06%	\$842	7.01%	\$901	10.00%	\$991	12%	\$1,182	14.00%	high tech/ IT
IT local vendors	7.14%	\$150	10.00%	\$165	9.09%	\$180	6.00%	\$191	2%			
telecomm	2.50%	\$205	12.20%	\$230	13.04%	\$260	5.00%	\$273	3%	\$493	5.84%	telecomm/ media
media	12.90%	\$175	2.86%	\$180	11.11%	\$200	10.00%	\$220	3%			
SMB/SME	6.67%	\$400	2.50%	\$410	-6.10%	\$385	10.00%	\$424	5%	\$424	5.02%	SMB
in M USD	2.71%	\$7,591	4.43%	\$7,927	5.08%	\$8,330	1.33%	\$8,441	99%	\$8,441	100%	in M USD

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IT Budgets 2020 (%)



fin other	18.00%
transport	12.00%
high tech	10.00%
media	10.00%
SMB/SME	10.00%
banks	9.00%
vendors	6.00%
telecomm	5.00%
insurance	4.00%
security	3.50%
utilities	2.00%
retail	2.00%
health	1.00%
education	-2.00%
manuf	-2.00%
government	-17.00%



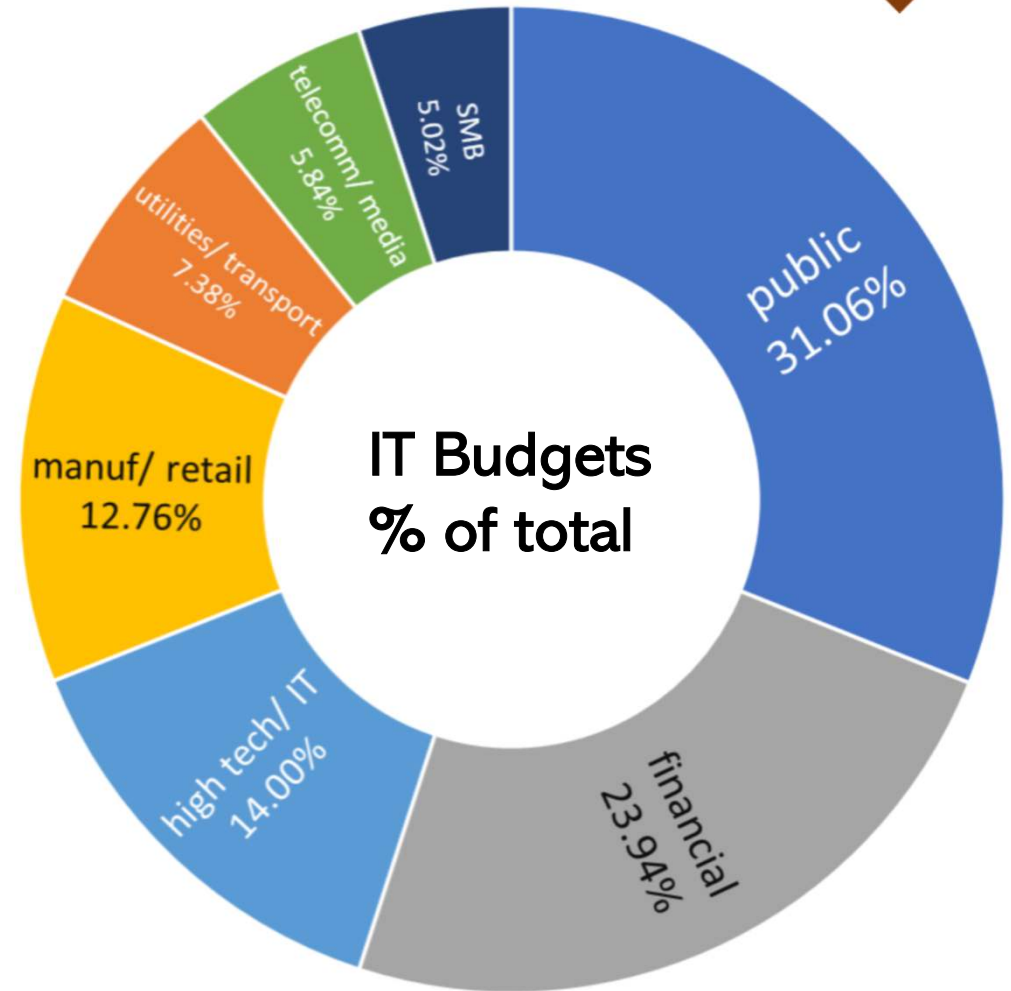
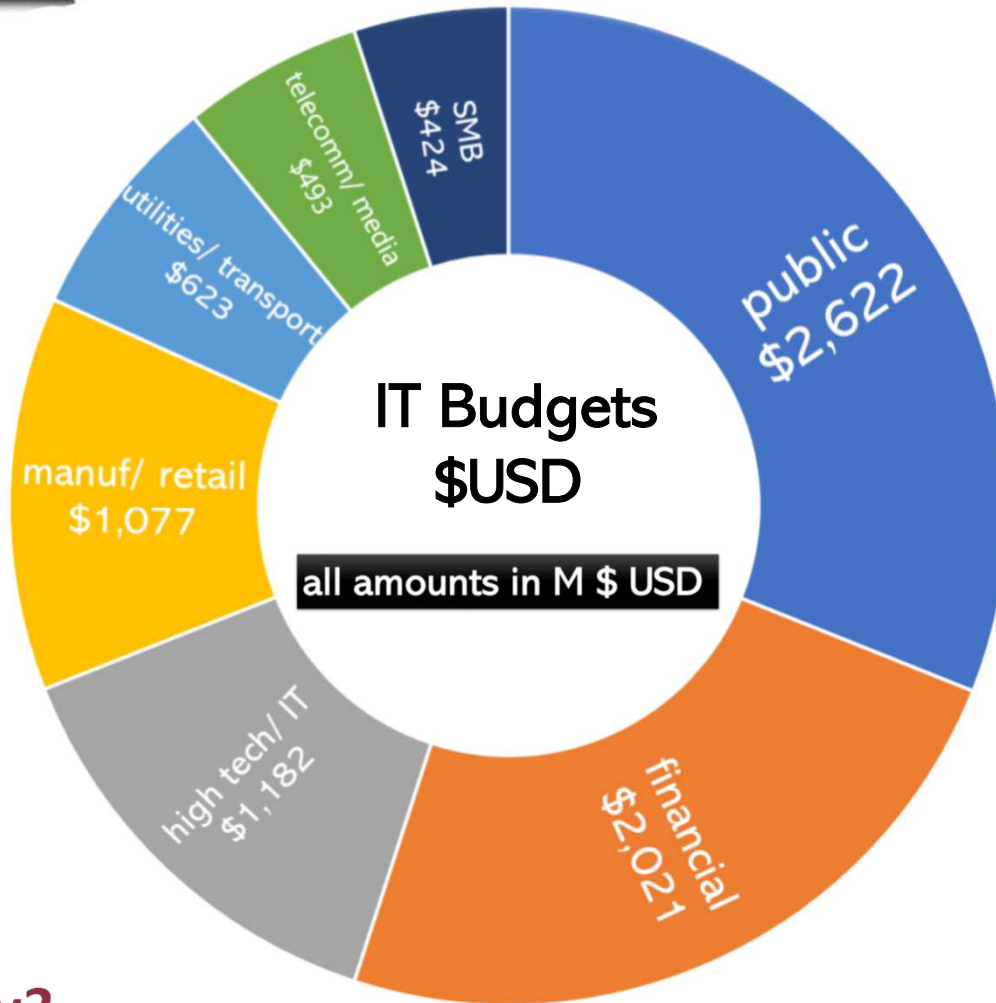
*Budget 2020
% change
from
Budget 2019*





IT Budgets according to Industries (aggregate)

80



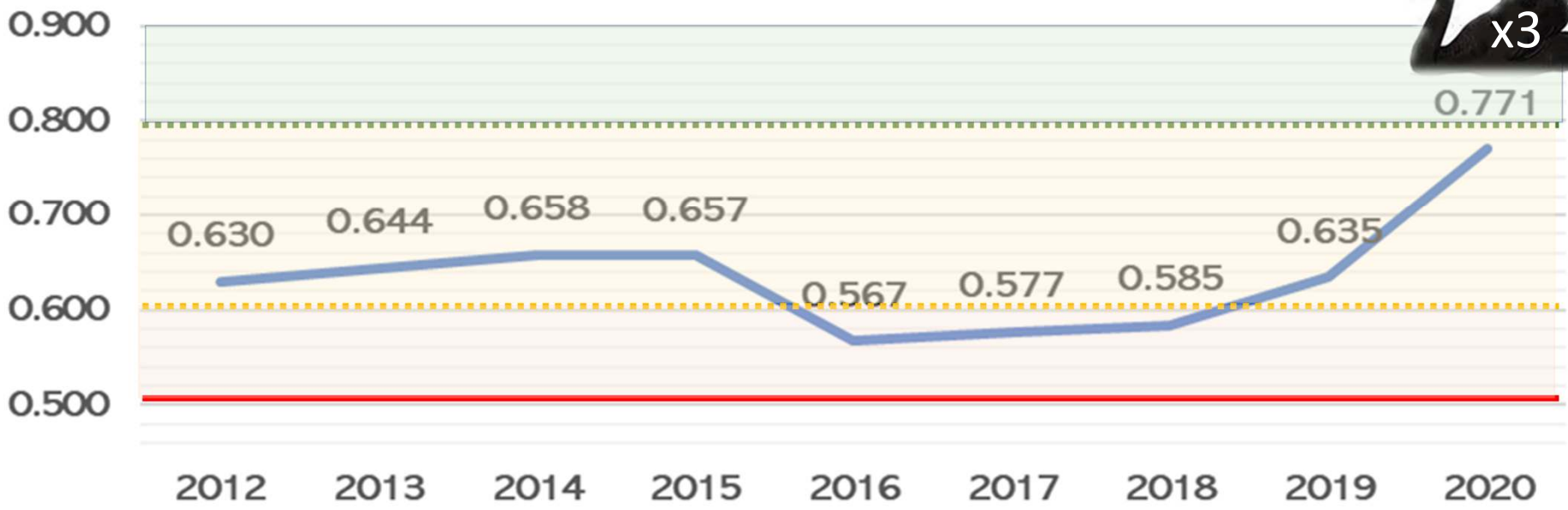
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stki.info STKI IT Market Health Index

over 1 excellent, over .80 good,
 under .60 bad and under .50 a recession

(banks + insurance + fin other) IT budgets
 divided by
 (government + education + health) IT budgets



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Introduction to the 28th edition (v3) of STKI Israeli IT Market Study 2020



STKI: who we are and what we do

Methodologies for the 2020 Israeli IT Market Study

How to read and benefit from :

- Product/ Services Market Forecasting for 2020-2020
- Hardware, Software & Value-Added Product/Service Rankings
- Product Positioning (support & market penetration)

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Founded in 1992, STKI is the leading business technologies market research and strategic analyst firm in Israel.

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- Over 28 years of experience in the IT analyst sector and thousands of annual face-to-face interviews with key industry participants have enabled STKI analysts to establish solid, long-standing relationships with customers.
- STKI customers include major IT organizations (government, financial institutions, telecoms, manufacturing, medical, education, etc.) and IT suppliers/vendors (infrastructure and software suppliers, consulting and professional services firms).
- STKI works closely with vendor senior management (strategy, business development, and marketing). Where end users are concerned, analysts meet with CEOs, CFOs, CMOs, CDOs and CIOs (as with all levels of IT decision making) thereby attaining complete information of their technology as well as their business needs.

STKI's mission is to advise and analyze users of business technologies as well as their suppliers while conducting original research and providing advisory services regarding all parts of the technology puzzle.



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STKI services include

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Unlike some research and advisory firms



does no consulting work, allowing our research to be **totally unbiased**, with **no hidden agendas to promote** any particular technology or vendor.

*Virtual meetings**

Face-to-face meetings
STKI Analyst House Calls
(for both users and vendors)
CIO STKI "Help Desk"
Inquiries
Surveys
Strategic Marketing & Positioning
Round Tables for users

*Weekly Webinars**

Vendor Discovery Series
(Newsletters and workshops)
Vendor Innovation Workshops
In-house Workshops
CIO Annual Bootcamp
CTO Annual Bootcamp
Brainstorming
(based on Design Thinking)
Workshops
STKI Annual Summit

* new

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**meetings
& budget
analysis**

- 250 CIOs
- 16 Industries

**product
briefings
& sales
analysis**

- 450 Vendors in
- X00s Vendor Briefings
- 106 categories
- X000s products/services



- X00s of presentations
- 75 Round Tables
- 5 CXO events

*What STKI analysts
did in 2019*



	2014	2015	2016	2017	2018	2019					
Office Productivity (Office, Calendar, Mail etc.)	92,000	-5.43%	87,000	-5.75%	82,000	-4.88%	78,000	-3.85%	75,000	-4.67%	70,000
KM (Enterprise portals, ECM, Search)	76,000	1.32%	77,000	2.60%	79,000	2.33%	81,000	2.47%	83,000	2.41%	85,000
Collaboration (IM, Video, Voice)	18,000	11.11%	20,000	15.00%	23,000	13.04%	26,000	11.54%	29,000	10.34%	32,000
BI, Analytics and Data Mgmt Tools	155,000	3.23%	160,000	8.38%	175,000	8.71%	192,000	6.77%	205,000	5.12%	215,500
Digital Output Management/ Customer Communication Management	18,000	5.56%	19,000	2.63%	19,500	5.13%	20,500	7.32%	22,000	4.55%	23,000
	358,000	1.11%	363,000	4.27%	378,500	5.02%	397,500	4.15%	414,000	2.78%	425,500



STKI Research Results:

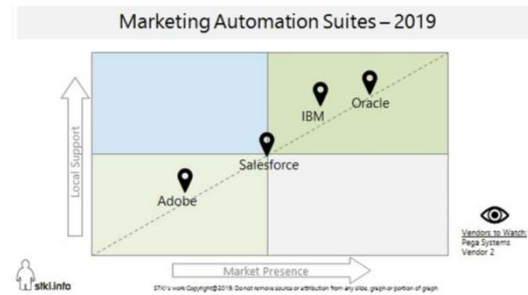
1. IT Trends
2. Surveys about organizational issues
3. Round Table Summaries
4. Industry IT Budgets
5. IT Market Forecasts by category
6. Vendor Tiers by category
7. Product Positioning
8. Staffing Ratios

industry	Budgets 2013	Budgets 2017	% growth
media/content	\$100	\$175	75.00%
fin other	\$190	\$265	39.47%
SMB/SME	\$300	\$400	33.33%
security	\$410	\$506	23.41%
government	\$1,250	\$1,530	22.40%
retail	\$195	\$230	17.95%
education	\$230	\$270	17.39%
health	\$290	\$335	15.52%
high tech	\$720	\$825	14.58%
manuf	\$810	\$880	8.64%
transport	\$305	\$325	6.56%
banks	\$815	\$865	6.13%
IT local vendors	\$150	\$150	0.00%
insurance	\$400	\$395	-1.25%
utilities	\$285	\$235	-17.54%
telecomm	\$250	\$205	-18.00%



<http://index.stki.info/>

BDA Projects
BDO
Byon
DataTapas
evo-it
Ewave
HPE
Methoda
StrategiClear
TraSky



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נייר עמדה: מבנה ארגוני וקבלת החלטות בתחום סייבר בארגוני IT Enterprise

סיכום מנהלים:

- בתחום הסייבר יש להבחין בין "גורם מבקר", "גורם מנחה" ו"גורם מתפעל" (אחראי סייבר).
- הגורם האחראי לטיפול ותפעול נושא הסייבר בארגון הוא ה-CIO ("הגורם המתפעל"). לא ניתן להפריד בין תפעול זה -זו הכללי לבין תפעול נושא הסייבר.
- לעיתים, יאציל ה-CIO סמכות (ואחריות) לטיפול ותפעול נושא הסייבר למנהל התפעול-תשתיות.



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Look Here

<http://index.stki.info/>

Hardware - Software - Value Added Services - Member Zone - Stki Website - Blogs

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Israeli IT Market Studies are here

Products' Israeli Positioning is here

Summit presentations are here

Round Table Summaries & presentations are here

Category

IT Tiering
Biggest Vendors in Israel 2012-13
Jimmy's presentations from our annual summits
» Read More

Product Positioning
Analysts' presentations from our annual summits
» Read More

Trends
Analysts' presentations about various fields
» Read More

Contact Us
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Tel: + 972-9-7907000 | Fax: +972-9-744.2444 |
Email: info@stki.info

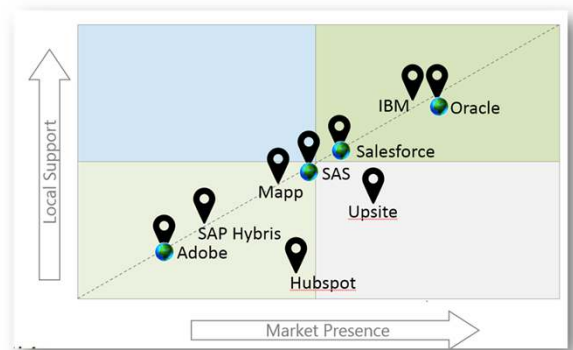
Round Tables
Round tables constitute a discussion between ten to fifteenth organizational users who deal with similar issues. The target of the meeting is to enable an open discussion, an exchange of ideas in the specific round table topic and to establish best practices, lessons and tips from this meeting.
» Read More

Newsletter
STKI Newsletter is a quarterly update on new products and services in the market. The newsletter includes a short overview on new solutions, divided into categories, and combines a relevant analyst's insight and analysis.
» Read More



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STKI IT Knowledge Integrators
COMPANY CONFIDENTIAL



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STKI Methodology: equilibrium model

The sum of all *IT expenditures* (from users) has to be equal to all *IT sales* (from vendors).

most research firms are either a

"demand-based"

(market information based on data from users of IT)

"supply-based"

(market information based on data from IT vendors).

STKI is one of the *only research firms using an equilibrium* model and the only one in Israel.



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In order to calculate the "IT Market" (what is bought/sold in Israel)

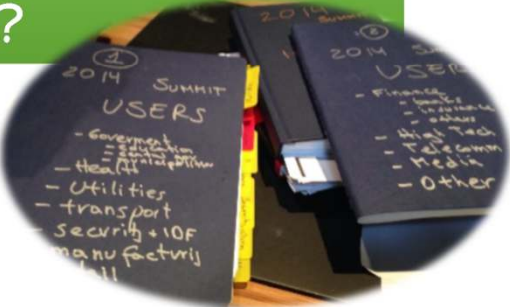


Technology Users

Technology Vendors



What users bought?
From whom?
Why?



how much did they sell?
to whom?
for how much?
competitors?



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Our study looks at any vendor value (products/services) sold to enterprises (also government & security) in Israel; taking into account the client's view/mindshare of value delivered

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We rank VENDORS by
REVENUE
and
CLIENT MINDSHARE

- > Yearly revenues of hardware sales and hardware maintenance
- > Yearly revenues of software licenses, software maintenance and cloud usage.
 - > We are learning how to account only for enterprise cloud usage in Israel for IT departments.
- > **Differentiation** between new projects and continuing projects (New projects count more)
- > **Distinguish** between work done by the vendor's employees and work outsourced to other vendors. The **revenue should be transferred** to the vendor **actually doing** the work.
- > **Differentiate** revenues from projects done in fixed price, cost plus (**SLA defined**) , managed services and those done by staff augmentation (**non SLA**) projects.
- > **Differentiate value** of work done by **high level internal** professionals in a project versus that done by **staff augmentation** employees in the clients IT department.
- > We do not include any work/ products for OEMs and military non-IT projects.

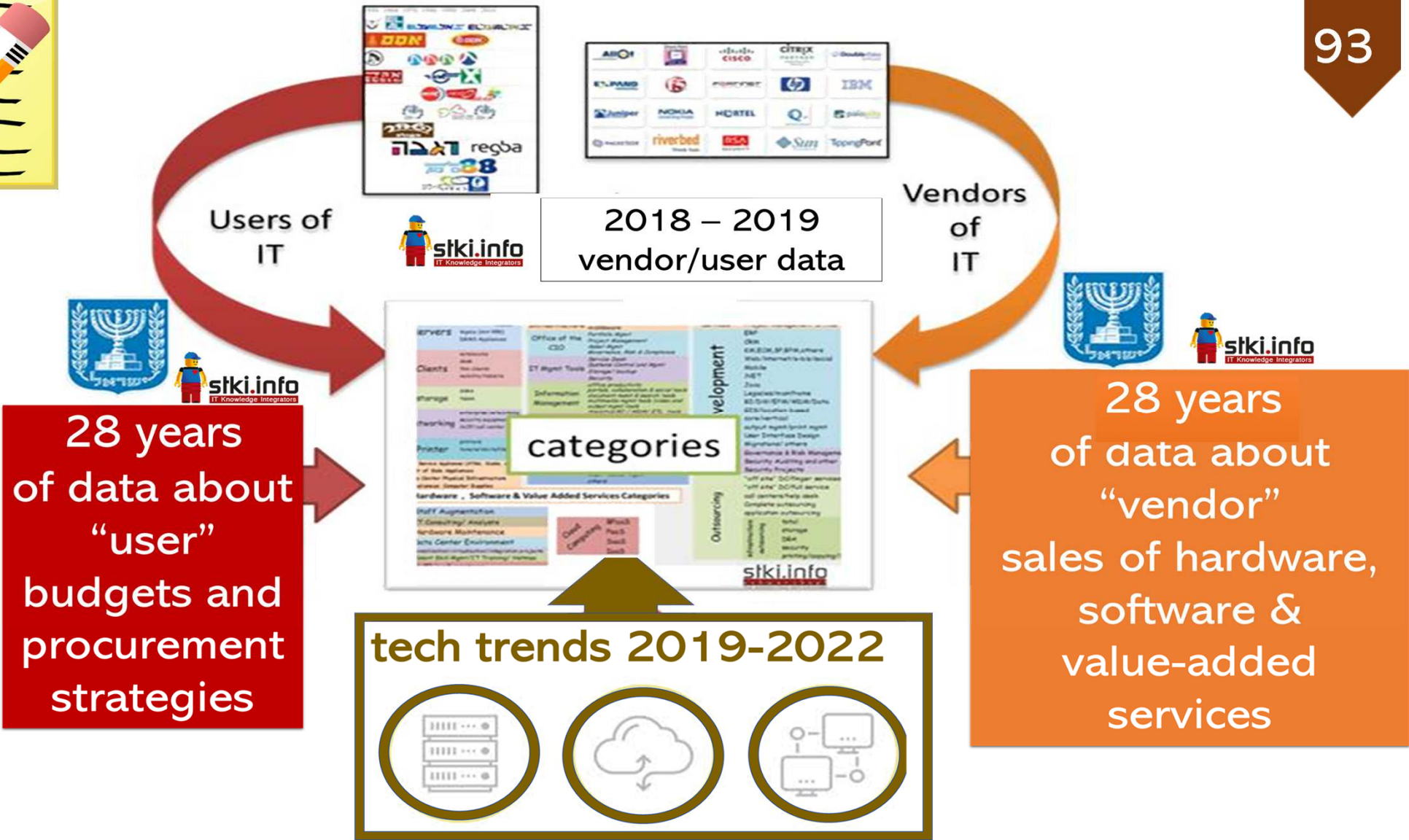


This market study was compiled in the midst of two crises:

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This period is characterized by an exceptional level of uncertainty regarding the depth of each of the crises, their length, and ramifications for the medium and long terms.

1. **Government crisis :** Due to the political deadlock Israel doesn't have a budget for the second year in a row. Despite that fact, there will be a marked growth of government expenditures and a decline in tax revenues. With the outbreak of the economic crisis, this budget is totally inadequate. A new government has been established but there is uncertainty regarding the policy steps that will be taken in various areas (with and without connection to the coronavirus crisis) and about their impacts on growth, employment, inflation.,
2. **Coronavirus crisis:** A recession seems inevitable, but its depth and duration are highly uncertain, it will depend on the evolution of the disease, the severity and duration of the restrictive measures imposed, and on the nature and magnitude of the economic policy response. The number of unemployed is expected to jump from some 157,000 in 2019 to over 1,250,000 and the numbers of those eligible for unemployment benefits will jump from 75,000 to about 900,000. The Israeli economy and public is experienced in coping with various types of shocks.



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STKI IT Knowledge Integrators
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Over 150 categories

We rank VENDORS by REVENUE and CLIENT MINDSHARE



VALUE ADDED SERVICES	
"Enterprise" CONSULTING: advice in a particular area not GULGALOT or IMPLEMENTATION	IT Strategy Consulting Digital Transformation Consulting Big Data Consulting IT Infrastructure/Delivery Consulting IT Application Consulting Cyber/Security Consulting
Hardware Maintenance	Hardware Maintenance
Infrastructure Projects	Consolidation/ Virtualization /Monitoring/ BSM/ Storage/ Hardware/ Data Center Environment/ Networking Projects Legacy:Mainframe/AS400/ VMS/etc. Software/cloud integration, middleware, SOA, BPM, ALM, Testing tools implementation Cyber security product implementation Unified Communication (IM, Video, Voice) PaaS and IaaS implementation & maintenance
Project Management Managed Services (with SLA)	Office of the CIO/ PMO ALM Q/A & Testing
Business Applications Implementation	ERP CRM-XRM Contact Center and Multi channel engagement tools HR & Talent Mng Knowledge Management (ECM, Portals) .NET based without web java based without web development (other technologies) without web Web & eCommerce Web Accessibility Mobile UX Design Data, BI, Analytics Marketing Automation Core Modernization Core Vertical Package Implementation Digital Output Management/Customer Communication Management Migrations SaaS implementations IoT Projects
Training & Hatmaa Mgmt	IT Training התמכה
EGRC	Auditing, Governance & Risk Management
outsourcing	Complete and/or application outsourcing (Client owns the HW) Infrastructure Outsourcing (infrastructure, storage mgmt, DBA services) Off-site Data Center (Operational/DRP), (Client owns the HW) Call Centers/ Help Desk Cyber security managed services (SIEM service) Printing Outsourcing Services (pay per click)
Cloud Services (Provider owns the HW)	Business Services as a Service- BSaaS (Salaries, Payments, BPO, etc) Platform as a Service PaaS/ Infrastructure as a Service IaaS Software as a Service SaaS DRP as a Service
Staff augmentation	Gulgalot on-premises Gulgalot off-premises (Nearsite) Nearshore

SOFTWARE

System Infrastructure	System Software (OS, Middleware Virtualization etc) Storage & Backup Databases (SQL NOSQL) Cloud Brokerage Software private cloud and automation tools
Middleware	AppiWEB server, ESB, SOA, BPM, ETL, FTP, Emulation, Messaging, BRMS etc.
IT Mgmt Tools	BSM, ITSM (Asset Management, Service Desk, APM, Monitoring etc)
security software	Access Control \ IDM Systems \ authentication Antivirus \ endpoint software \ EDR endpoint detection & response Deception/honeypots Mobile security (MDMMAM) other security software
Office of the CIO Tools	Project & Portfolio Management EGRC
Development Tools	Development and ALM (including testing tools) Mobile Apps Development Platforms including Mobile Testing
Information Management applications	Office Productivity (Office, Calender, Mail etc.) KM (Enterprise portals, ECM, Search) Collaboration (IM, Video, Voice) BI, Analytics and Data Mgmt Tools Digital Output Management/Customer Communication Management
Business Applications	ERP Vertical (Core Business) Applications CRM/XRM HR/ Talent Mgmt/ LMS Contact Center and Multi channel engagement tools (chat, bots, virtual IVR, Video etc...) PLM Web Content Management + eCommerce Platforms IOT tools and platforms Marketing Automation Software

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HARDWARE

servers X86	Servers/White Boxes
other server architectures	Legacy (non-x86) DB/DW other Converged HW or Appliances
clients (commercial use only)	Window PCs (Notebooks, desk,thin) Non Windows PC's Smartphones /Tablets
storage	Disks (HDD and SSD) VTL Backup and other Storage Appliances Tape Libraries
networking	Enterprise Networking Security / Cyber VoIP/Call Center Equipment
Printer	Printers
other	MONITORS, CASSETTES, ETC
Special Purpose	Data Center Physical Equipment POS +Self Service (ATM/Kiosks/other)

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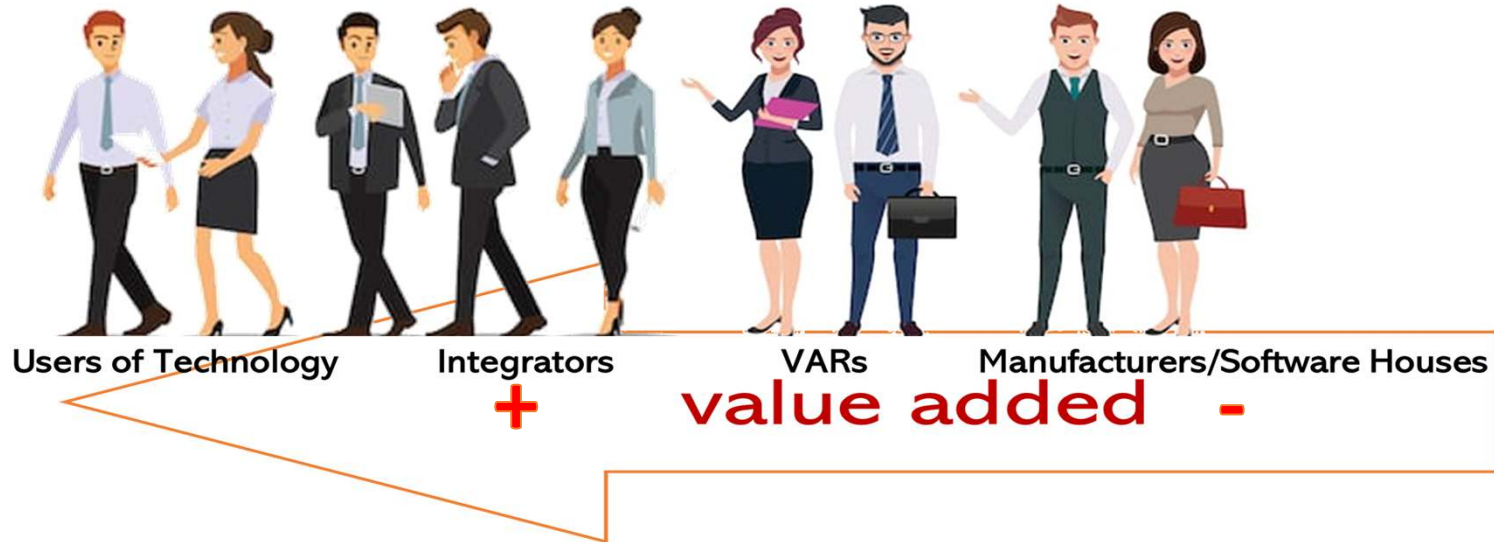
456 IT VENDORS in Israel

We rank VENDORS by REVENUE and CLIENT MINDSHARE



Do IT Wise	Barracuda Networks	ComLead	Fortinet	Liacom	Nice	Riverbed	Test Pro	Vision.bi
2BOpen	BBT	Comm IT	Fujitsu	Libi Software	Nimblestorage	Safend	That's IT	VMWare
2Plus	BDA Projects	CommVault	GBS	Technology	Nipendo	SafeNet	Ticomsoft	Waterfall
3bears	BDO	Complete	Getter Tech	Linnovate	Nogamy	safeway	Tikal	WebSense
5ive	Be2See	ComposeDoc	Gigamon	Lior Lurye	Nokia (Alcatel-Lucent)	Salesforce	Tingz	WEDO
A10 networks	BeLocal	Comsec	GiniApps	Liveperson	Normative	Samsung	Tiuv	WEDO
A2Z	BenefIT Technologies	ConVista	Gizmoz	Log-On	NPTEch	Saninteractive	Todan	We-Do (Unitask)
accelario	Bezeq International	Copytech	Google	Ludan Group	Nutanix	SAP	Top Group (Ramdor)	WinIT
Accenture	BGate	Correlata	GreenSQL	Mafil	oasistech	SASA-Security	Toshiba	Wise
Access Layers	BI-conix	Corvette	GRSee	Magalcom	Omega Israel	sec4biz	Train-Mate	Wisecsec
Portnox	Bitplus	Covertix	Gstat	Maglan	One1	SecureNet	Traxp	WIZsupport
Acronis	Blossom	Cryptzone	HaShavshvet	Malam-Team	Opal Systems	SecuriTeam	Triad security	WonderNet
ACS	Blue Coat	Csoft	HDS	Mapr	Open Legacy	see-security	Triggerplus	Xerox
Actifio	BMC	CTM	Head-on	Matan	Open Storage	Segment	Triple C	Xtramile
ActiveView	Boris Gilad	CyberArk	Hilan	Matrix	Opisoft	Sensecom	TripleT	Yael Software
adacom	B-Pro	Dario IT	Hilan-Ness	Matrix/2Bsecure	Oracle	Seperia	Triplite	YKM
ADMS Solutions	Brillix	Data Cube	Hilan-Qlikview	MatrixBI	Orantech	ServiceNow	TrustIT	y-tech technologies
Advantech	Britannica Knowledge Systems	DataBank	Hilan-We-Ankor	Mavkym Software Solutions	Oranus	ServiceWise	Trustnet	Zaponet
Afek Systems	Brocade	DataTapas	Hortonworks	HMS	Oregano	ServIT	TutIT Soft	Zebra Technologies
AgileSparks	Brother	DB best	HP	Maxoft	other PCs	Seventh Dimension	Twingo	Zemingo
Aginix	Bugsec	db@net	HP-CS	Mbileiron	P.Z. Projects	Simplivity	twisted	Zilit
AKT	bulwarx	DDN	HPE	McAfee	Palo Alto	Sinopia	TZUR	Zilumatic
ALD	Bumpyard	DellEMC	I.E.Mittwoch	Med1	Panorama	SIT	UA- User Accessibility	Ziv Systems
Alexander Schneider	Bunkersec	DesignIT	IBM	Medatech	Partner	Skywind	U-BTech	
AllCloud	Business & Decisions (B&D)	DMway	IDC	medsec	pelican-tech	Smarthings	UCL	
Almog	Bynet	DNA-IT	Imperva	Mellanox	Penguin IT	SmartIT	UI	
ALTernative	Bynet-Semech	DocuSign (ARX)	Infinidat	Menahel4u	PNMsoft	smartsoft	Unilink	
AlterNet	Byon	DoIT	Inkod	Meteor	Point of View	SmartX	Unitask	
Aman (Eternity)	C4	DorIT	InnoVAD	Methoda	Polycom	Smarx	UPTech	
Aman Computers	CA	Double Du	Integrals	MIA Computers	Printer Center	Social Knowledge	Uptima	
Amarel	Calanit Carmon (ONE)	Dropbox	Integrity	Microsoft	Priority	Softimize	Uteam	
Amazon	Calcom	Dvash	Intellinx	MidLink	Proceed	Software Source	UXVision	
Amdocs	Canon	E2M	intensity	milgram	Proware	SoftwareAg	Valinor	
Anagal	Carmelon	E4D	Intentia Israel	MindU	Profix	Solarwinds	Valire	
APC	CAV Systems	Elad	Interdeal	Minicom	ProLink	SourceIT	Varnis	
Apple	CB.IT	ELK Group	Internet Group	Mobideo	Promisec	Spinnaker Support	vCC	
Applicat	CB4	ellipsis	IPSec	Mobilpro	Puzzlehead	SQLink	Veeam	
arcserve	Cellcom	Emerset	ipv-security	Mobisec	PwC	SSP	Veidan	
Ardom	Cellosign	Emet	I-Rox	Moblin	Pyramid Analytics	Steerli	Veracity	
Artis (ADA Systems)	Centerity	Energy Team	IT Solutions	ModeIZ	Qesem	Stratoscale	Verint	
ASUS	Check Point	Epson	ITAnalyzer	Modern Systems	QualiTest	Sungard	Veritas	
Attunity	Checkmark	Ergo	ITAssist	Mongodb	Raam	switch-it	Virgonet	
AutoFont / Docomotion Automation	ChipPC	Ericsson	I-til Consulting	Mpl	Rachip	Symantec		
Technologies Group (One1)	Cisco	Ernest & Young	ITlogic	MSP	Radvision	Synerion		
(One1)	Citadel	Evolen	ITNAVpro	MultiPoint	Radware	Sysaid		
Avaya	Citrine BI	Ewave	IXia	MyBusiness	RAZEL	Sysnet		
AVcom	Citrix	Expertis	Juniper	Naya Tech	Raz-Lee	Systematics		
AVCS	Cloud Intact	F5	Kaminario	Ness-Pro Digital	Realcommerce	Tadiad		
Avnet	Cloudera	FBC Technologies	Kaspersky Labs	NetApp	Red Hat	Tadiran Telecom		
AXperts	Cloudera	fireglass	Kineo	NetCloud	Reduxio	Taldor		
ayehoo	CloudTech	FMR	Knowledge	Netcraft	RELS	Talend		
AZTEK	Codeazis	Forcepoint (Websense)	Lenovo	Nevo	Renaissance	Tata		
	Cognit	Forcepoint (Websense)	Levmark	NewAge	Rimini Street	TechMind		
	Comax	Forcepoint (Websense)		Nextcom	TERASAFE	Telemessage		
	Comda	Forcepoint (Websense)		NGSoft				

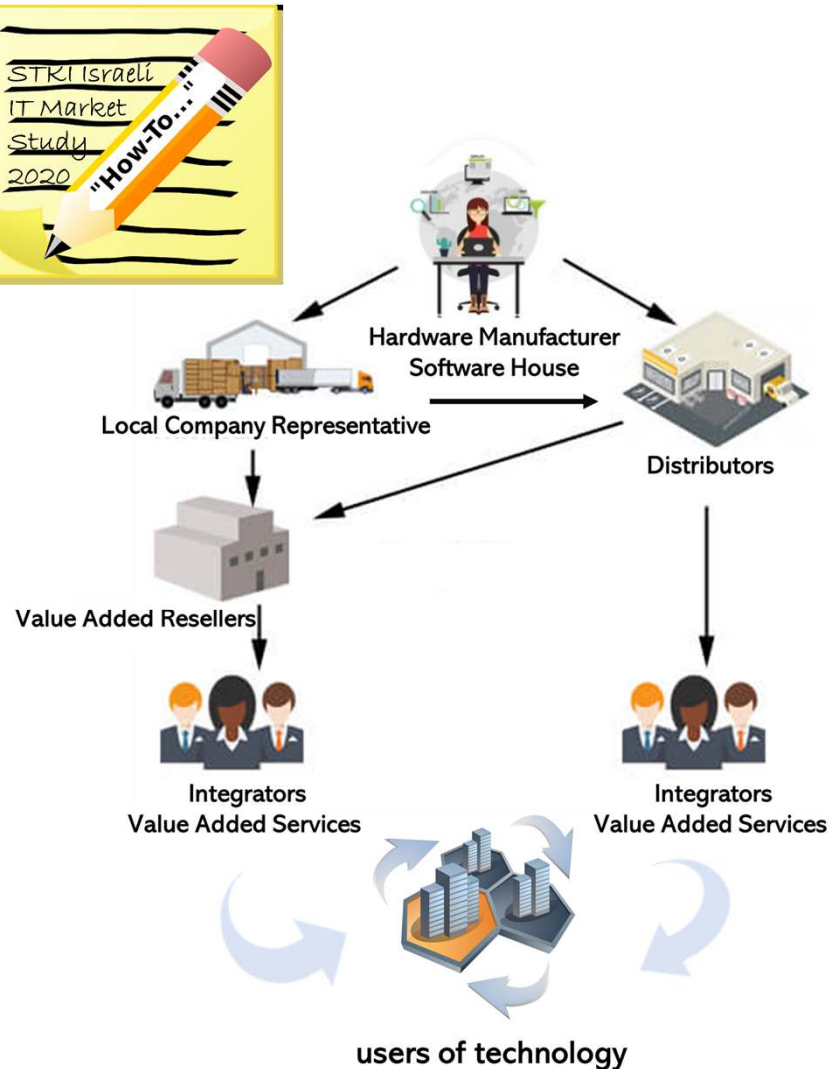
Manufacturers/Software Houses, Distributors, VARs **NO** double bookings for **IT Market Size Forecasts**



Resellers (VARs) get credit only for their value added unless the manufacturer/software house is not present in Israel, then they get full credit.

Integrators and other Value Added Service Providers get credit only for the “services-work” they contributed to the project.

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DISTRIBUTORS (usually are not shown in our study) are intermediary reseller entities; between the original **MANUFACTURERS OF HARDWARE PRODUCTS** or **SOFTWARE HOUSES** and other entities in the distribution channel (VARs and INTEGRATORS).

VALUE-ADDED RESELLERS (VARs) offer third party software and hardware to the end user or integrators at a markup, along with a *limited* combination of procurement consulting, configuration, and customization services (*shown under HARDWARE or SOFTWARE*)

INTEGRATORS offer *professional's services* (consulting, developing, implementing or sourcing manpower) in order to deliver enterprise computer services to the organization. (*shown under VALUE ADDED SERVICES*).

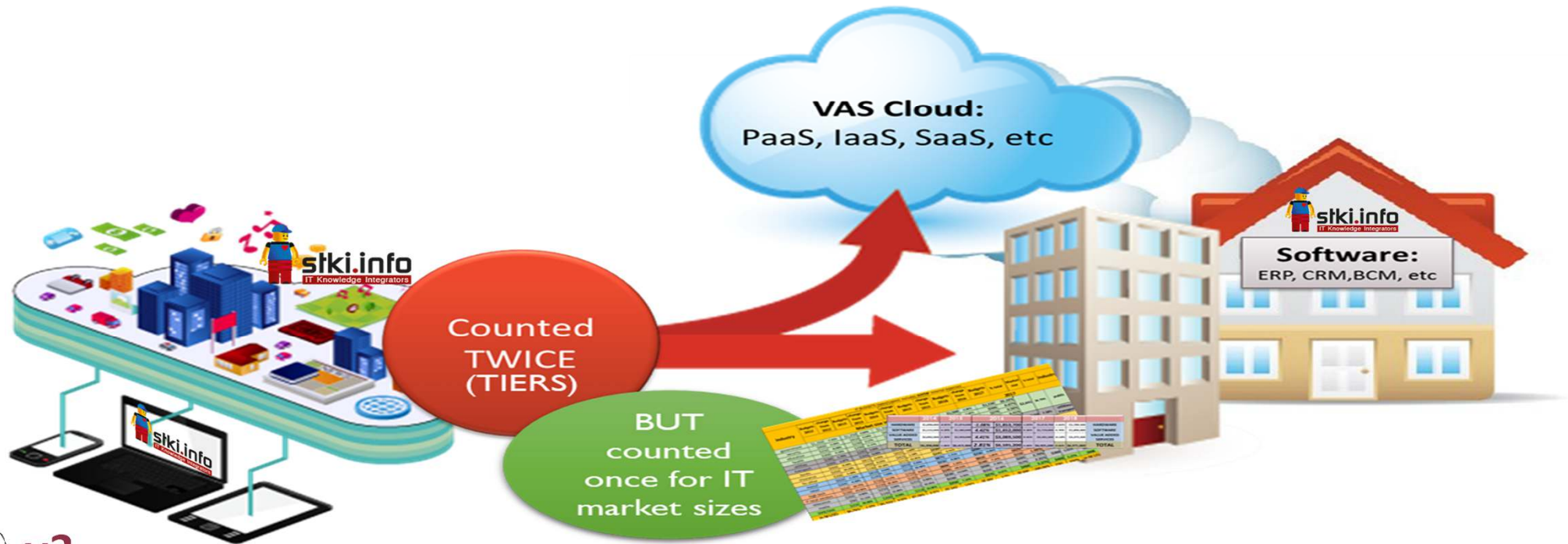
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for SaaS products **“sold”** on the cloud
STKI **“books twice”**

- on-premises software category
- on the SaaS application category

(but **NO** double bookings for the **IT Market Size Forecasts**)



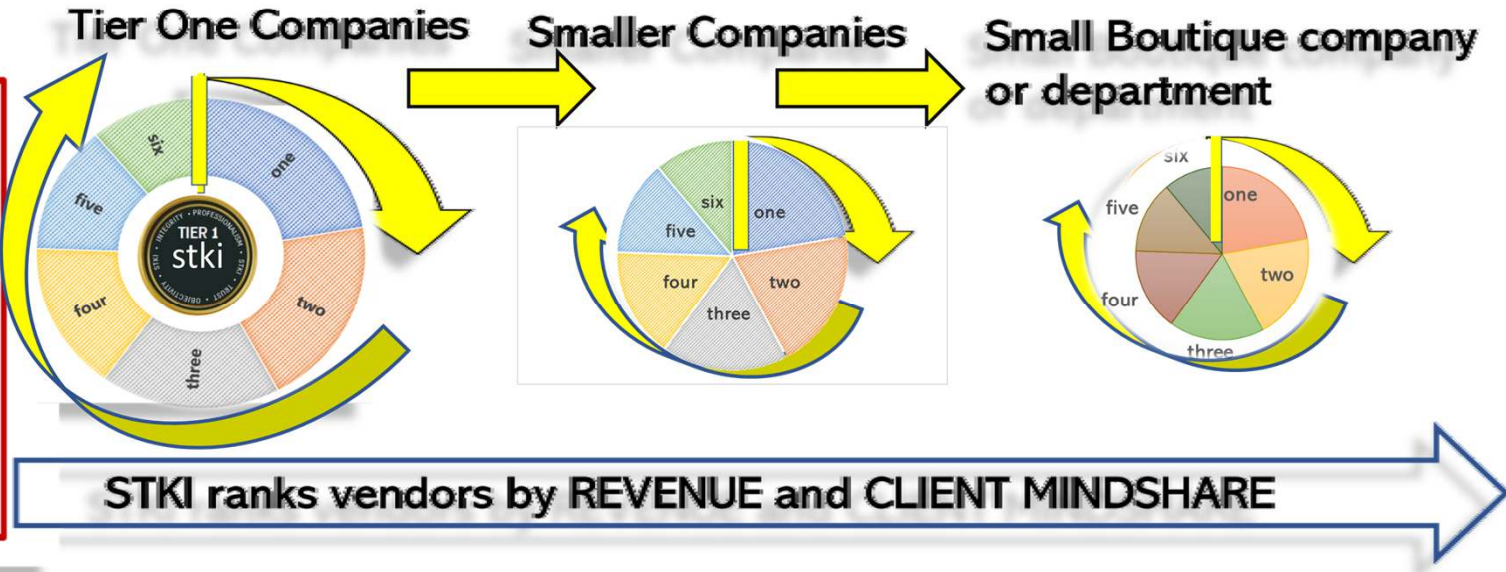
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The Area a company occupies in the circle is not relevant and has no meaning.

STKI has **signed NDAs** with the vendors (revenues, projects) and we tried to **minimize opportunities for backward engineering of the data .**

STKI calculates market sizes by revenues/sales and not deliveries or invoices





Methodology for “Israeli Positioning” 100

is **NOT** a technological or functional positioning and **SHOULD NOT** be used as such. This positioning is intended to reflect **ONLY THE DEGREE** to which a product is **PRESENT AND SUPPORTED IN ISRAEL**

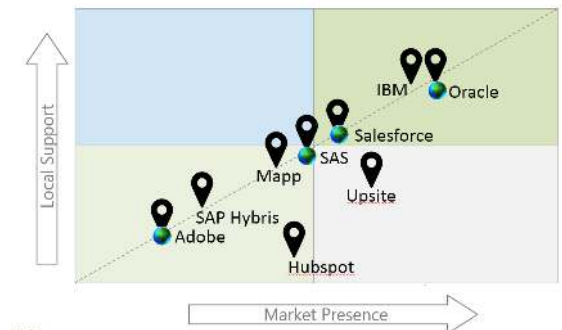
Focused on the enterprise sector (not SMB)

▲ X axis (Market Presence):

Installed base; New sales; Mindshare

▲ Y axis (Local ISRAELI Support):

Number and quality of Sis; localization; local R&D



▲ Vendors to watch: New players that only recently entered the market and therefore cannot be evaluated against longtime players



▲ Global leaders: marked according to international analyst firms

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“Israeli Positioning” slides

This is **NOT** a technological or functional positioning and **SHOULD NOT** be used as such.

This positioning is intended to reflect

ONLY THE DEGREE

to which a product is

PRESENT AND SUPPORTED IN ISRAEL

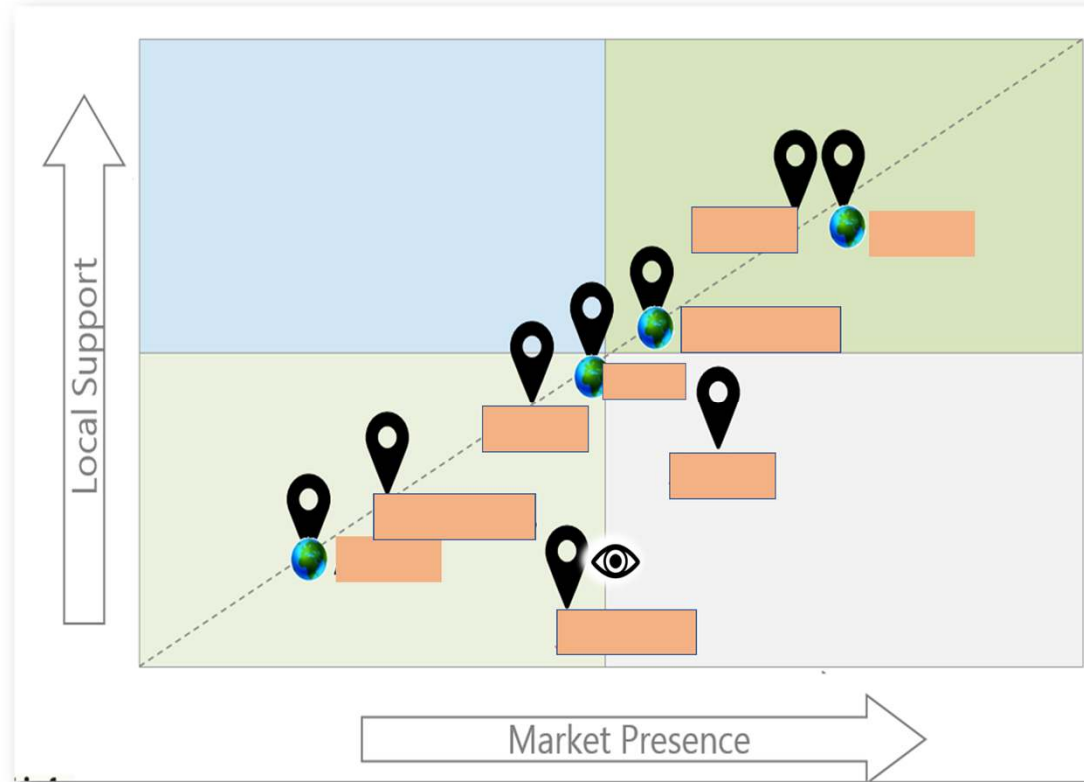


Israeli Product Positioning Slides

Y axis

(Local Support):

Number and quality of support experts, it's localization and language support and if there is local R&D



Global leaders

according to international analyst firms



Vendors to watch

New players that only recently entered the market and therefore cannot be evaluated against longtime players

X axis (Market Presence)

Installed base; New sales; Mindshare

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The graphic features a gold seal on the left with the text "TIER 1 stki" and "INTEGRITY • PROFESSIONALISM • OBJECTIVITY • TRUST" around the perimeter. To the right, the "stki" logo is displayed in red. Below it, a dark blue banner contains the text "THE KNOWLEDGE INTEGRATORS" in white. Further down, the text "stki Summit 2020" is shown, with "stki" in red and "Summit 2020" in a black script font. At the bottom, it reads "ANNUAL ISRAELI IT MARKET STUDY" and "www.index.stki.info".



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Israeli IT Hardware/ Infrastructure Market

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2018	changes	2019	changes	2020	changes	2021
1,734,150	1.87%	1,766,500	1.24%	1,788,450	4.67%	1,872,000

FORECAST VERSION ONE



2019	changes	2020	changes	2021	changes	2022
1,766,500	-0.40%	1,759,500	4.04%	1,830,500	4.29%	1,909,000

all amounts
in \$KUSD

FORECAST VERSION TWO



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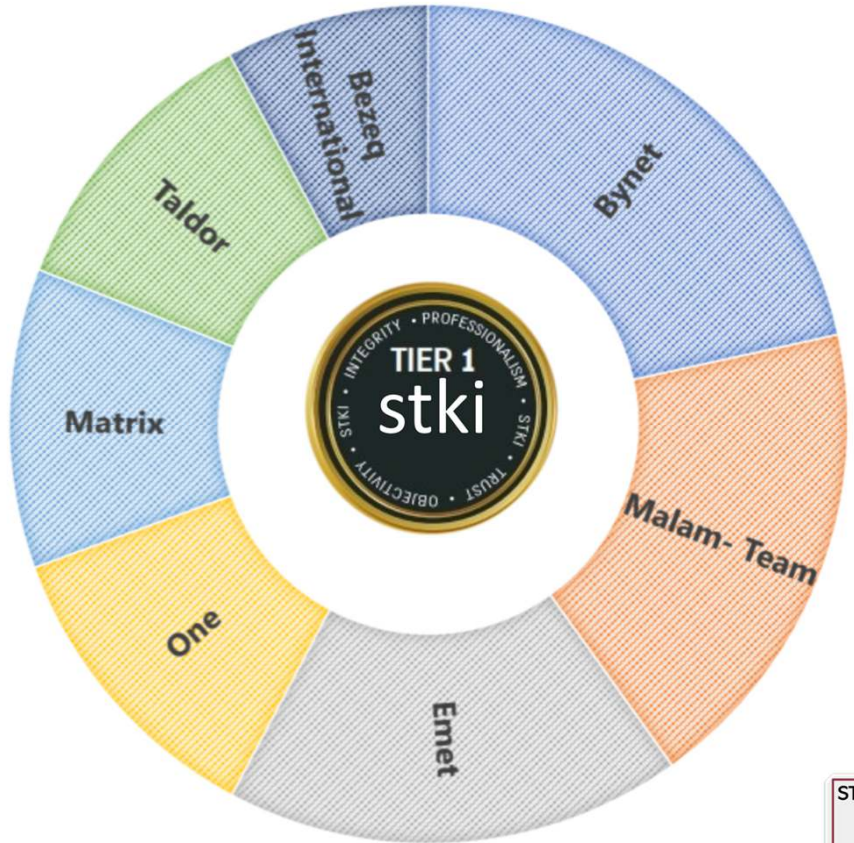
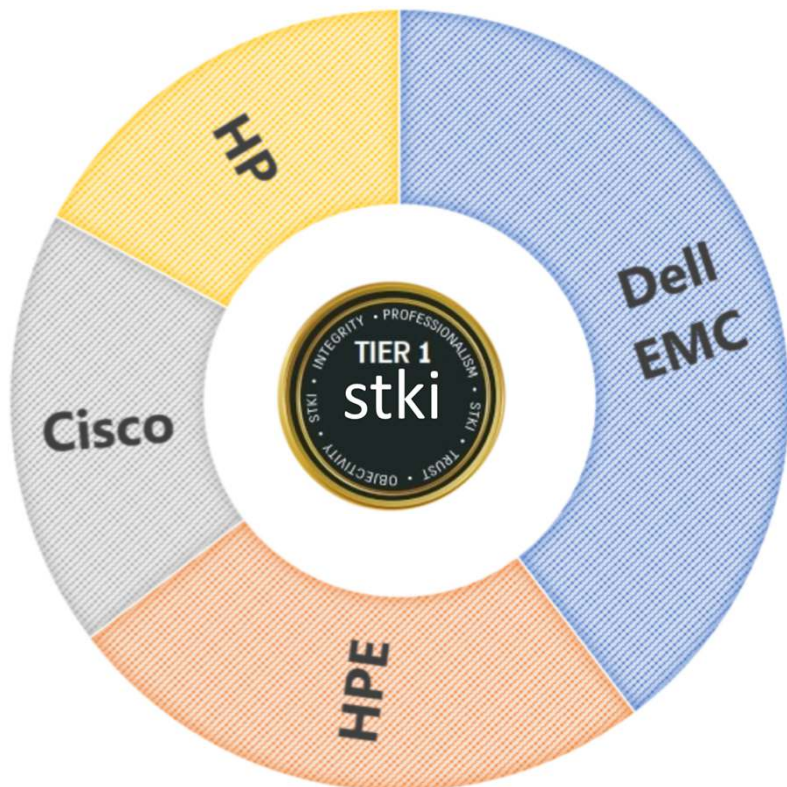




TOP VENDORS: Hardware Markets

manufacturers

local VARS



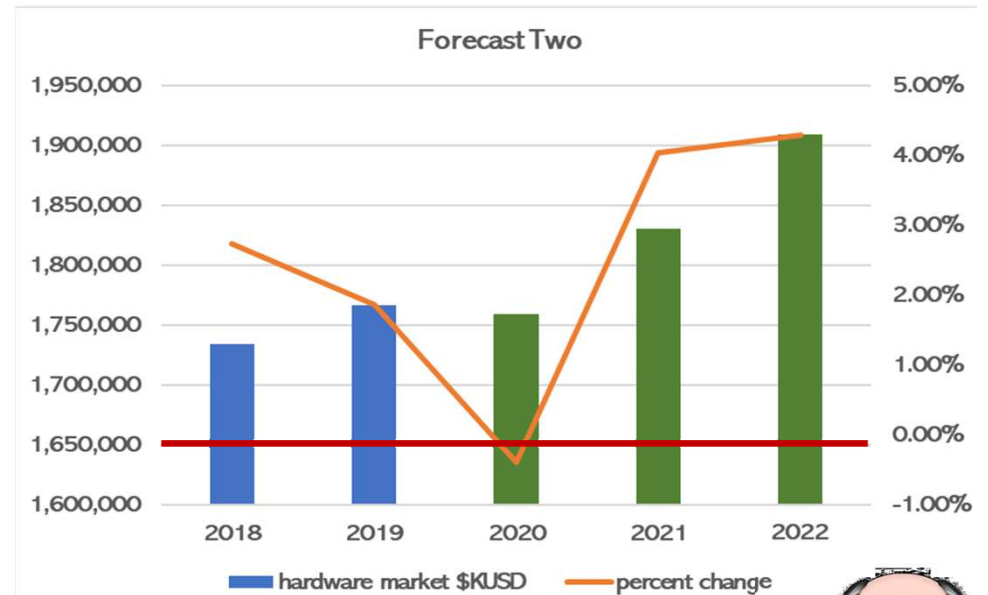
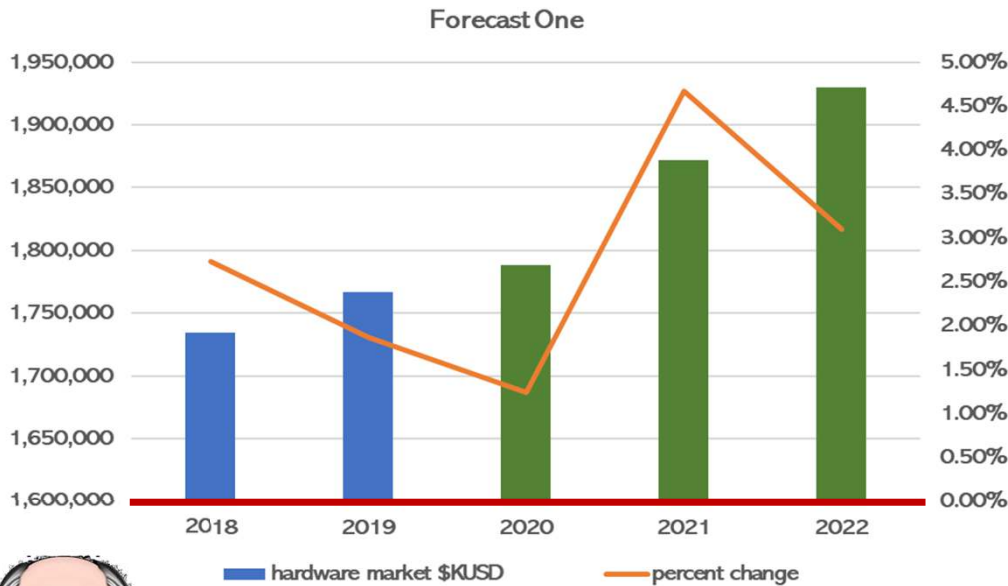
STKI ranks VENDORS by REVENUE and CLIENT MINDSHARE



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Comparison of Forecasts for Hardware/ Infrastructure Market 2017-2022



percentage of IT Budget		2019	2020	2021	2022
hardware	forecast one	24.94%	24.90%	24.85%	24.43%
hardware	forecast two	24.94%	24.88%	24.05%	23.28%

all amounts in \$KUSD

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hardware market

Comparison between Forecast one and Forecast two for 2020

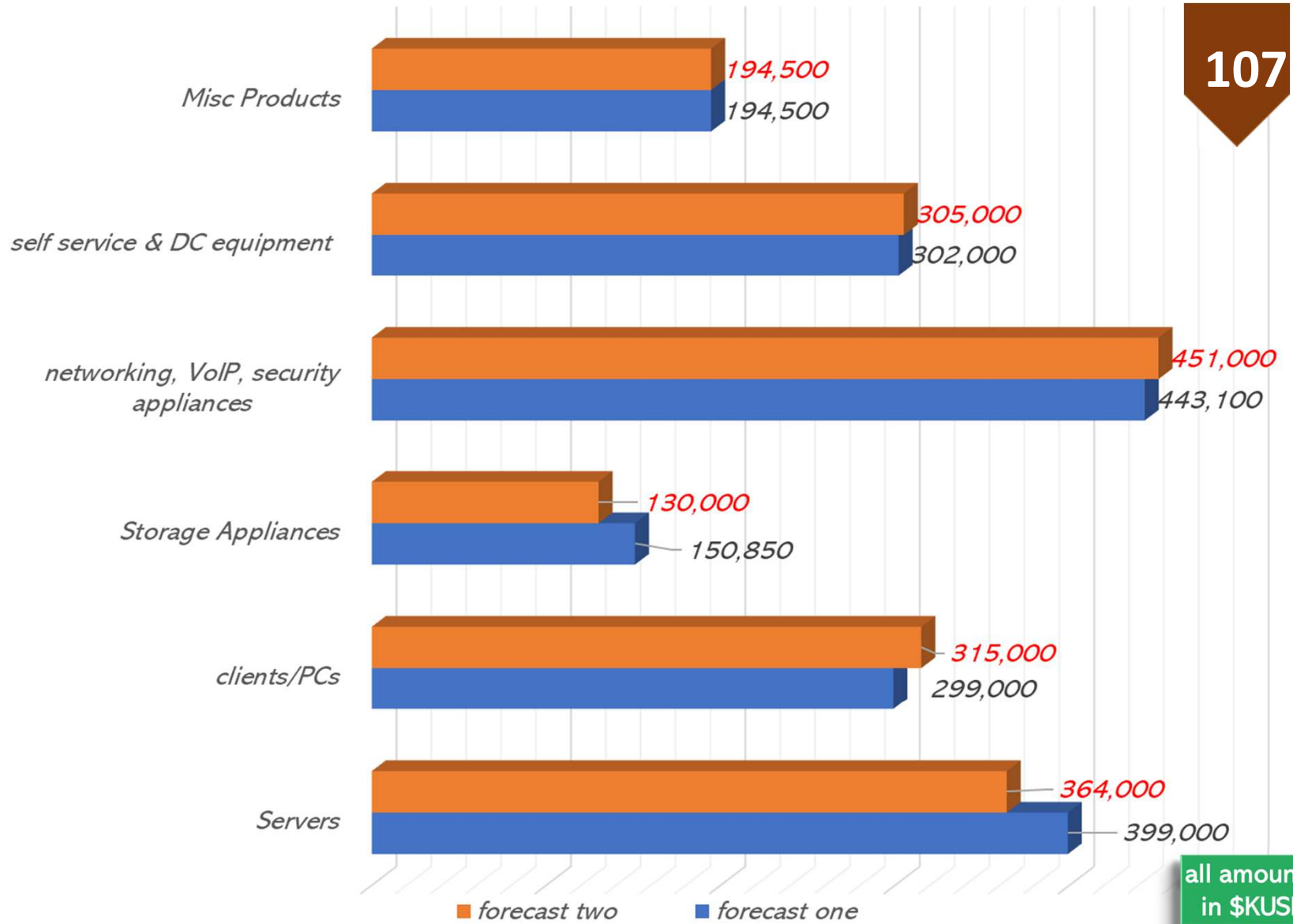
2020 F2 2020 F1



Forecast 2



Forecast One



all amounts in \$KUSD

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Israeli IT Software Products Market

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2017	changes	2018	changes	2019	changes	2020	changes	2021
1,460,800	4.72%	1,529,800	3.46%	1,582,800	-0.75%	1,571,000	4.16%	1,636,400

FORECAST VERSION ONE



2019	changes	2020	changes	2021	changes	2022
1,582,800	-1.80%	1,554,300	2.57%	1,594,300	7.09%	1,707,300

all amounts
in \$KUSD

FORECAST VERSION TWO



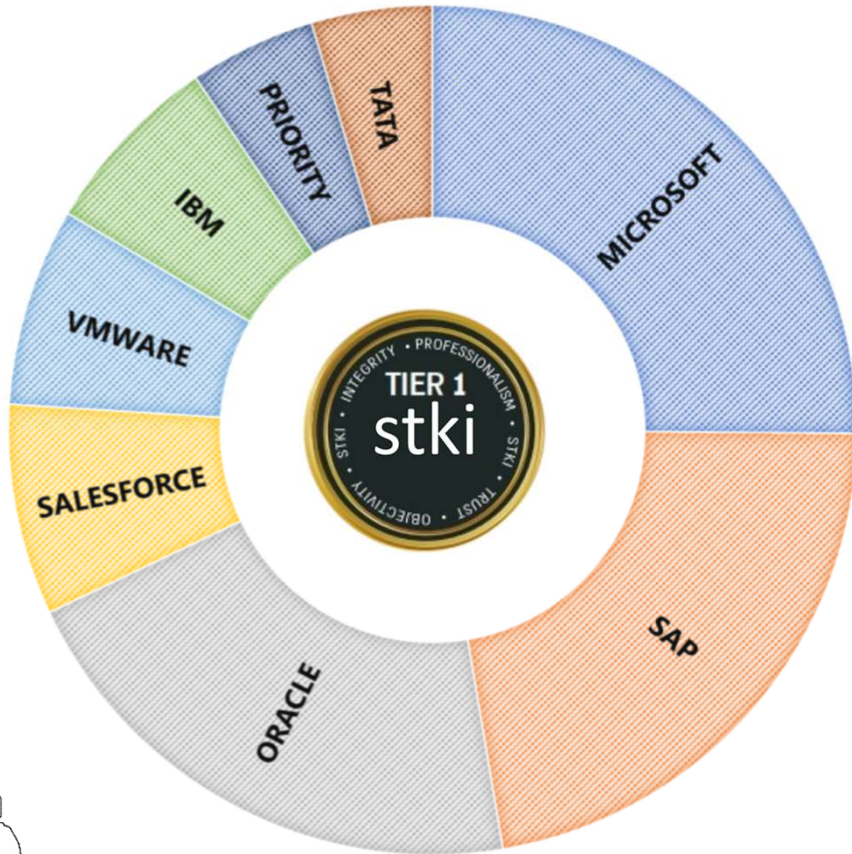
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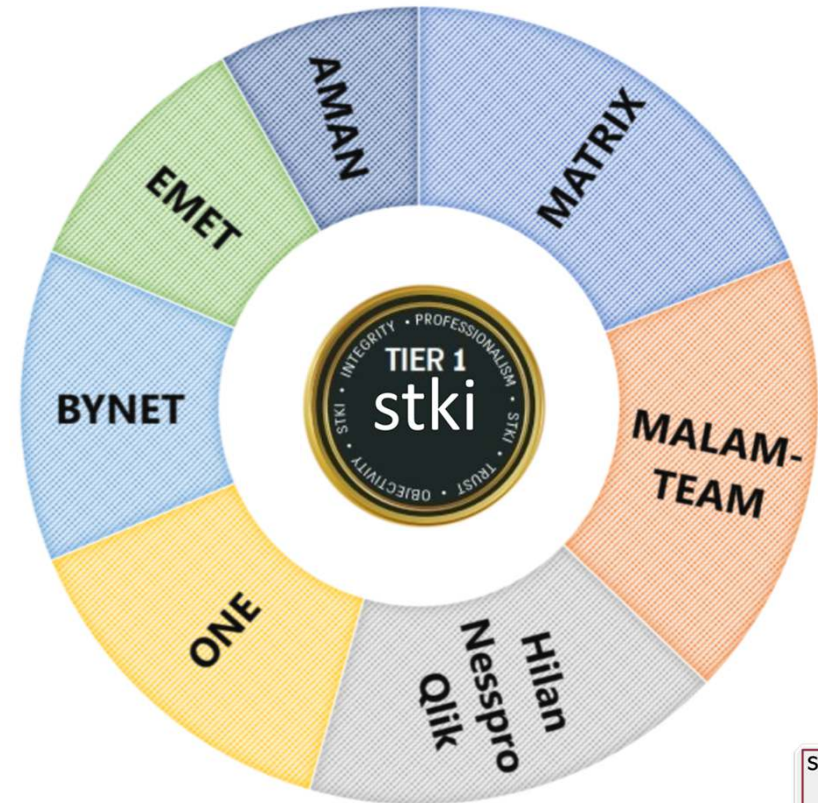


TOP VENDORS: Software Markets

Software Companies



Software VARS



STKI ranks VENDORS by REVENUE and CLIENT MINDSHARE

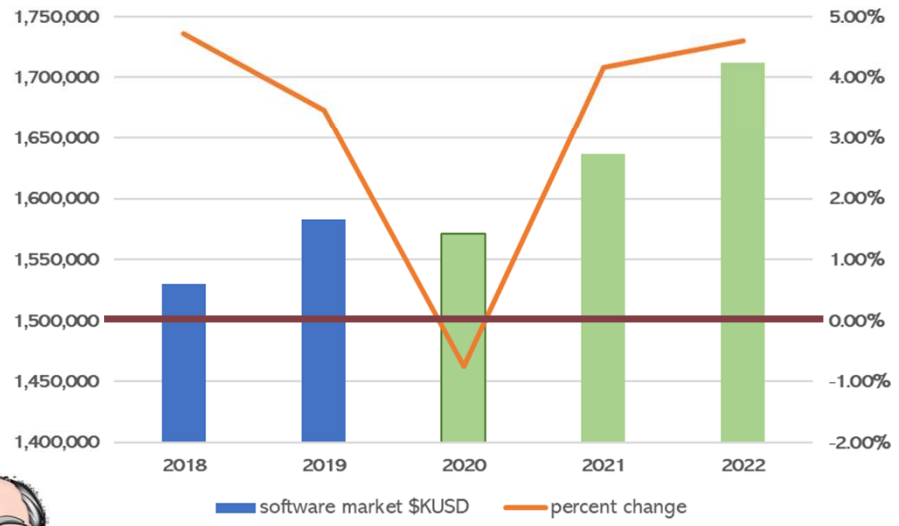


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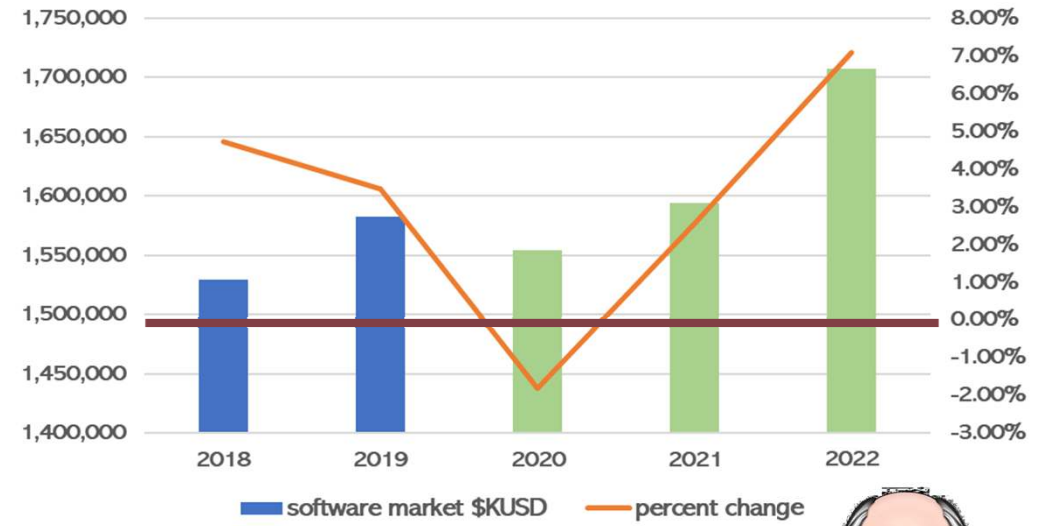


Comparison of Forecasts for Software Products Market 2018-2022

Forecast One



Forecast Two



percentage of IT Budget		2019	2020	2021	2022
software	forecast one	22.34%	21.87%	21.72%	21.66%
software	forecast two	22.34%	21.98%	20.95%	20.82%

all amounts in \$KUSD

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software market

Comparison between Forecast one and Forecast two for 2020

2020 F2 2020 F1

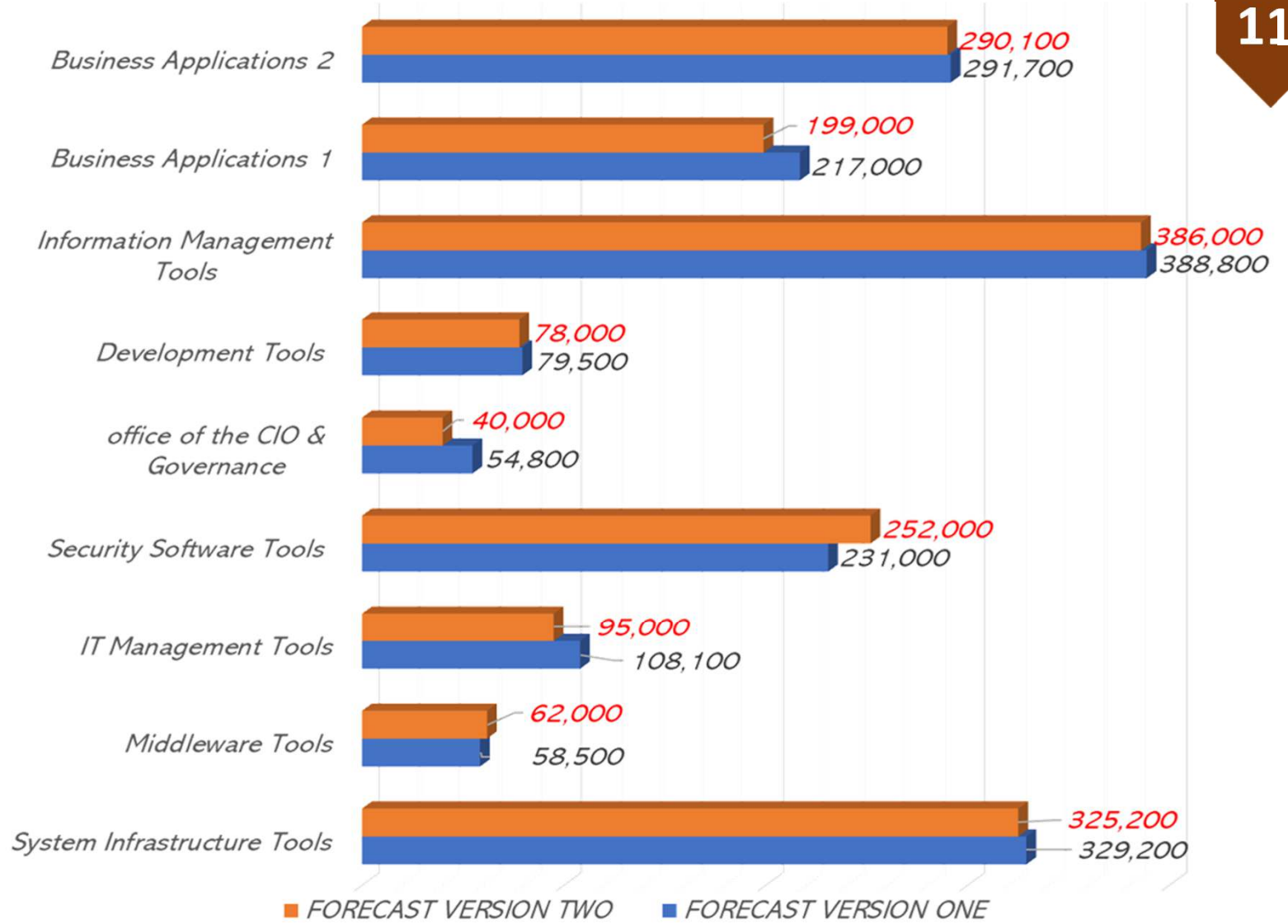


Forecast 2



Forecast One

all amounts in \$KUSD



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Israeli IT Value Added Services Market



2017	changes	2018	changes	2019	changes	2020	changes	2021
3,325,200	6.24%	3,532,600	5.72%	3,734,800	2.37%	3,823,350	5.28%	4,025,250

FORECAST VERSION ONE



2019	changes	2020	changes	2021	changes	2022
3,734,800	0.65%	3,759,050	11.36%	4,186,000	9.52%	4,584,400

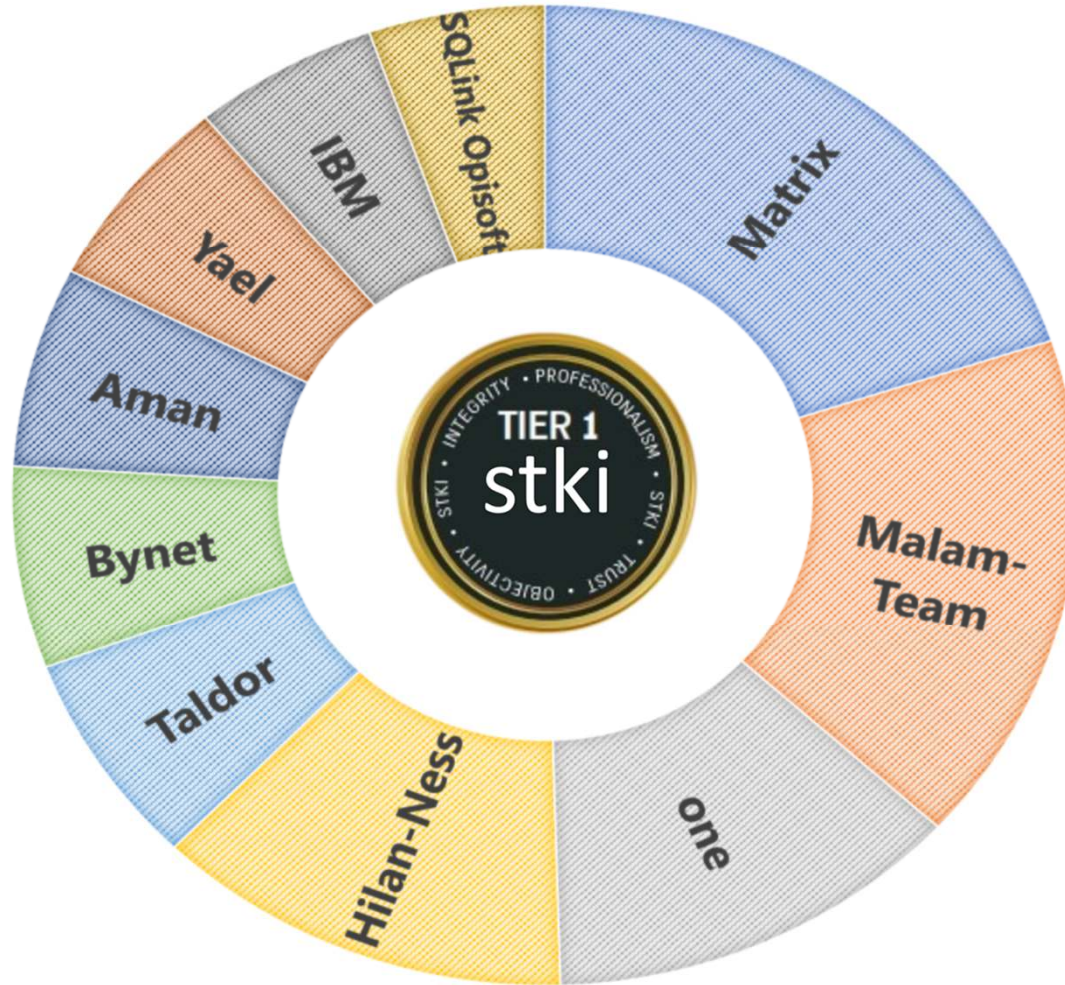
all amounts in \$KUSD

FORECAST VERSION TWO



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TOP 10 VENDORS: Value-Added Services Markets



STKI ranks VENDORS by
REVENUE
and
CLIENT MINDSHARE

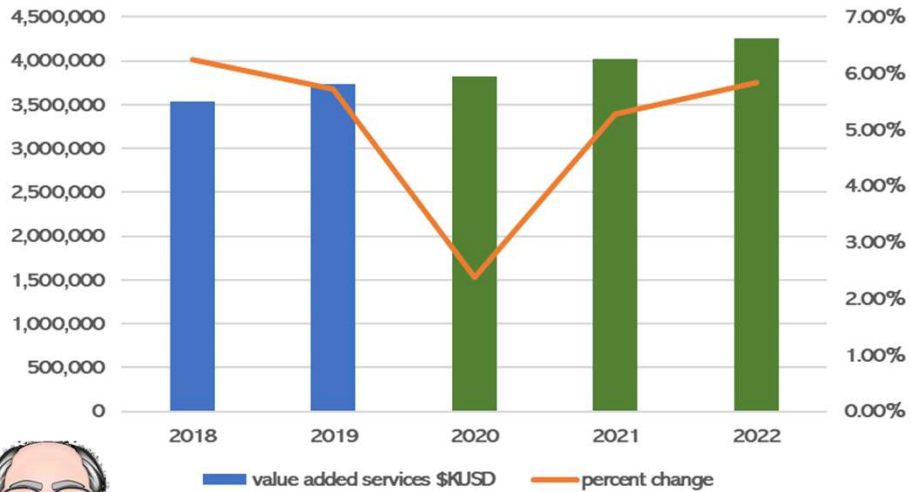
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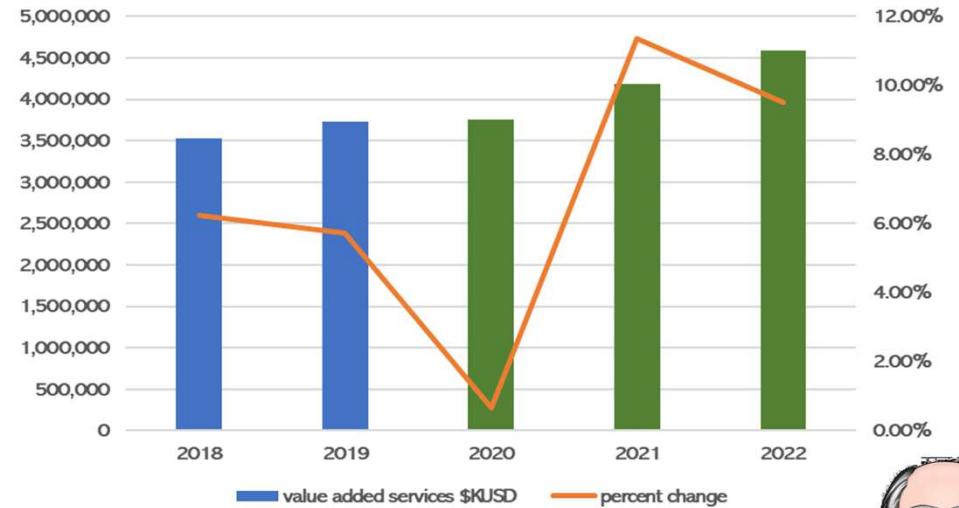
Comparison of Forecasts for Value Added Services Market 2017-2022



Forecast One



Forecast Two



percentage of IT Budget		2019	2020	2021	2022
value added services	forecast one	52.72%	53.23%	53.43%	53.91%
value added services	forecast two	52.72%	53.15%	55.00%	55.90%

all amounts in \$KUSD

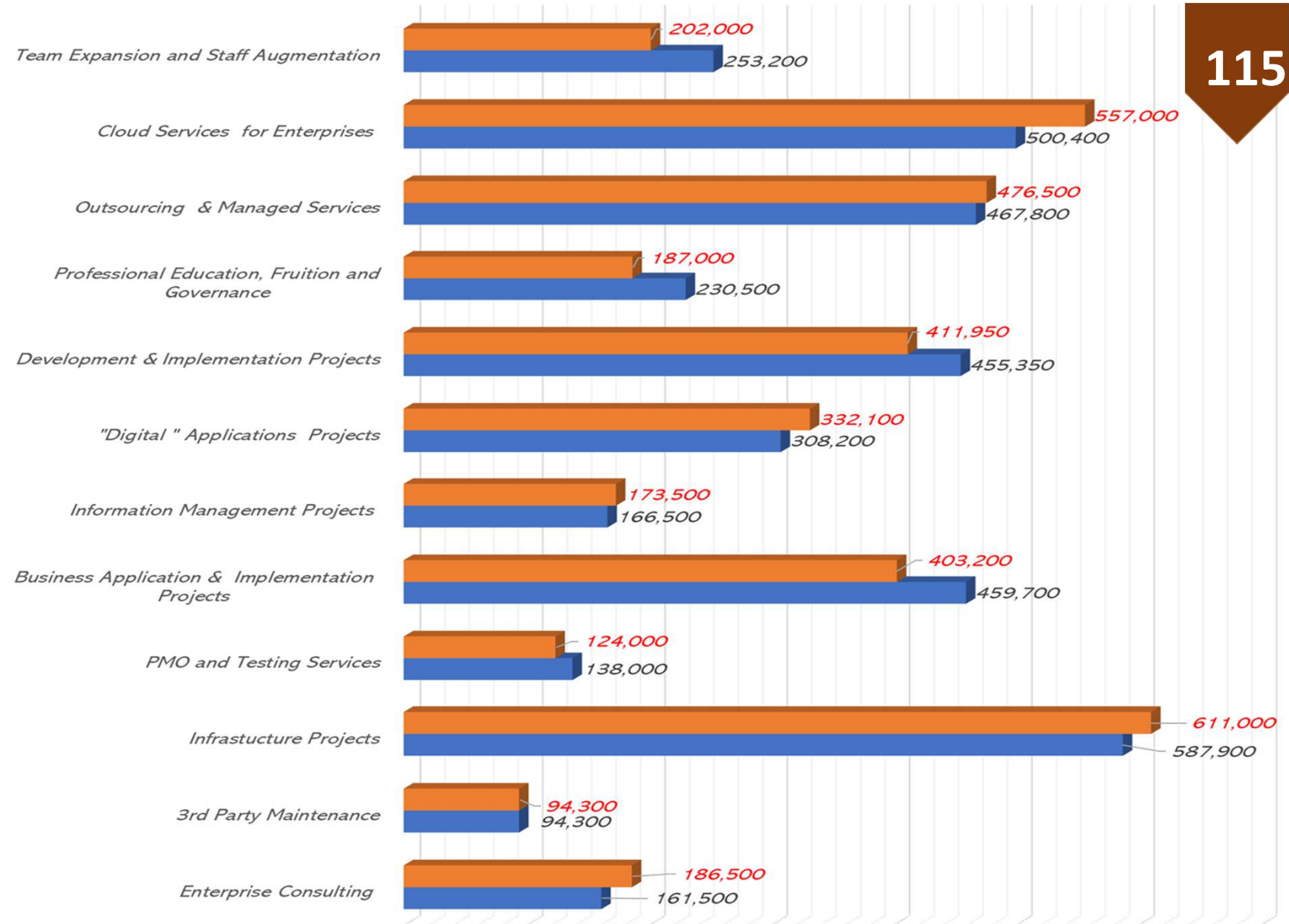
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Comparison between Forecast one and Forecast two for 2020

2020 F2 2020 F1



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STKI 2020 Volume 2 v3

Israeli IT Market Study
(Hardware-Infrastructure)



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STKI 2020 Volume 3 v3

Israeli IT Market Study
(Software Products)



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For more results of the 2020 Study and the v3 version please open the other 3 volumes.

STKI 2020 Volume 4 v3

Israeli IT Market Study
(Value Added Services)



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STKI 2020

Volume 1 v3

Israeli IT Market Study

Post COVID-19 transformation, assumptions, economy, forecasts companies and industry budgets

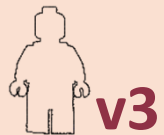


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