CAPTIW© PRO

Comparative Assessment & Performance Tool for Innovative Workplaces

# ASID HQ Workplace Innovation Performance Assessment


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## Executive Summary

Workplace performance is affected by a dynamic mixture of various factors under three categories in the workplace in general: *place*, *process*, and *people*. These are namely three pillars of workplace performance. Since the emergency of innovation economy and challenging economic turbulences, many organizations have focused on understanding the essential components of workplaces that spur high productivity through innovation and creativity to yield better financial returns with less resources and capital investments. In order to support organizations' effective innovative and creative performance through workplace design strategies, Innovative Workplace Institute (IWI) has created a new workplace model identifying critical workplace design attributes that have exhibited links to each specific pillar of workplace performance.

Based on this model, IWI has identified Seven Key Performance Indicators (KPIs) of innovative workplaces including Space Type, Space Layout, Space Size & Access, Neural & Psychological Stimulation and Relaxation, Ergonomics & Technology, Ambient Conditions, and Healthfulness. Incorporating these to an analytic platform, it has also developed an open source workplace analytics called the Comparative Assessment and Performance Tool for Innovative Workplace (CAPTIW©) with over 40 industry leaders to collectively advance workplace design and management practices (detailed information available from InformeDesign Feature Article).

By utilizing CAPTIW©, IWI conducted a comparative assessment study analyzing workplace performance in relation to supporting innovation between the previous ASID workplace and the current HQ that is the first LEED Platinum - and WELL Platinum - certified workplace. This in-depth report focuses on a detailed analysis of the current workplace and a brief comparative analysis between two places. Overall, the performance of the current ASID HQ is a manifestation of how a well-designed human-centric workplace contributes to not only employees' health, wellbeing and satisfaction but also their performance and organizational innovation performance.

The workplace performance of the current HQ has been vastly improved in every category of Seven KPIs. The innovation performance has also drastically increased. The previous ASID workplace performance was classified as the "Entrepreneurial Innovator" group characterized with talented and motivated people under environmental challenges to perform to their fullest. The workplace performance of the current ASID HQ falls under the highest performing tier group "Vanguard Innovator" that exhibits an excellent organizational capacity orchestrating between place, process, and people to raise organizational innovation performance to the fullest.

The current ASID HQ's physical workplace is aligned well with organizational innovation goals and strategies. The core visions of the organization are well communicated with individual employees through the ambience of the workplace. Its greatest strengths identified in this analysis include Interaction-Collaboration Spaces, Recharge Spaces for Socialization, Use of Low-Technology, Layout for Work Flow and Connectivity (please refer to the Recommendations for Innovative Workspace Performance section in this report). The superb performance of the workplace will be a critical contributor to the growth of innovative performance as well as sustainable acquisition and retention of talented workers.

(* A workplace wellbeing analysis to follow at a later time, using PROWELL©)



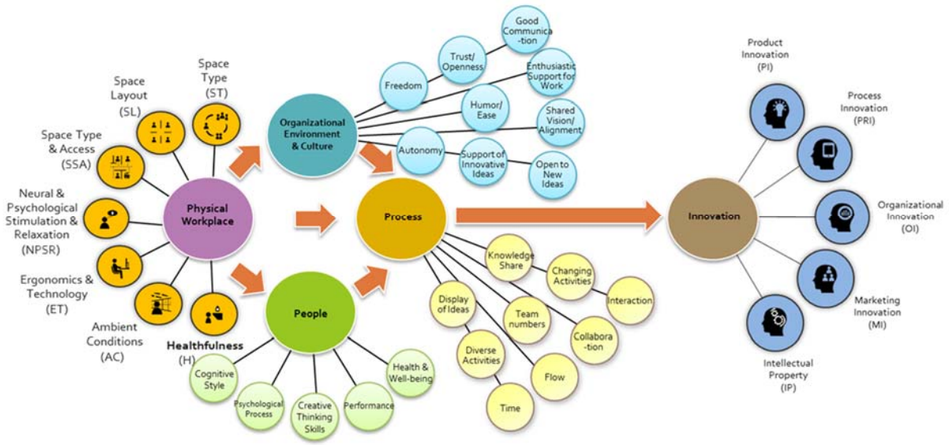
# About CAPTIW© PRO

## 1. Open Source Online Workspace Analytics

The Comparative Assessment and Performance Tool for Innovative Workplaces (CAPTIW©) is a comprehensive workplace analytics that assesses the performance of the physical workspaces in relation to the organizational innovation strategies and innovation performance. A set of recommendations can be drawn from the analysis to transform current workplaces to support innovation strategies of the organizations. It was developed by a collective effort with over 40 industry and academic partners to advance the field of workplace design and management, and offer an analytic platform for the evidence based workplace management.

## 2. Unique FUNCTIONS OF CAPTIW©

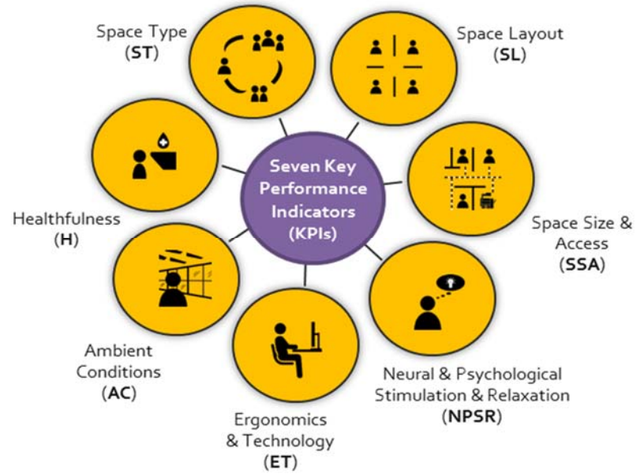
**1. MOST COMPREHENSIVE WORKPLACE MODEL**: CAPTIW© is grounded on the most comprehensive workplace model to look at the impact of specific key performance indicators of workspaces on the organizational culture, procedure of creative practice, and people together.




Five constituents of Creative and High-Performing Knowledge Workplace (CHPKW)

**2. MOST COMPREHENSIVE KEY PERFORMANCE INDICATORS (KPIs) OF WORKSPACES**: CAPTIW© analyzes the workspace performance based on the most comprehensive list of key indicators of workspaces that are critical to organizational creativity and innovation, in order to understand how these indicators perform and support innovation strategies and innovation performance .






Seven Key Performance Indicators (KPIs) of Workplace

**3. PERFORMANCE-BASED ASSESSMENT**: CAPTIW © comprises the seven key performance indicators (KPIs) and complete sets of sub-key performance indicators that solely utilize objective and prescriptive measures to diagnose the physical workspaces.

**CAPTIW© SCORECARD**

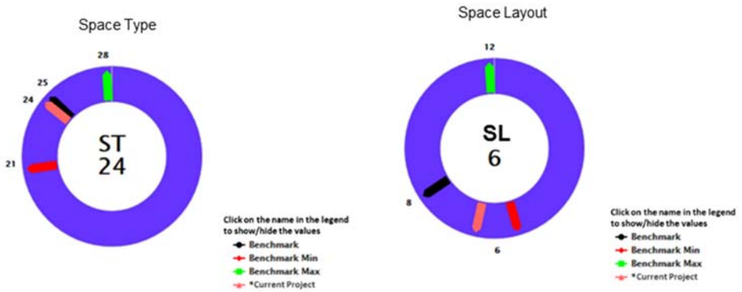
**Key Performance Indicators of the Physical Work Environment**

Instruction:
Type the number minus 1 corresponding to the order of the answers. e.g. 0 for the first answer, 1 for the second answer, & 6 for the seventh answer.

| | | |
|---|---|---|
| **SPACE TYPE (ST)** | | |
| ST1-1 | Choice of Work Spaces: Focus (Head-down) Spaces | |
| ST1-2 | Choice of Work Spaces: Collaboration Spaces | |
| ST1-3 | Choice of Work Spaces: Socialization Spaces | |
| ST1-5 | Level of Ratio Balance | |
| ST2-1 | Interaction-Collaboration Work Spaces: Formal Meeting Spaces | |
| ST2-2 | Interaction-Collaboration Work Spaces: Informal Meeting Spaces | |
| ST2-3 | Interaction-Collaboration Work Spaces: Impromptu Meeting Spaces | |
| ST2-5 | Level of Ratio Balance | |
| ST3-1 | Recharge Spaces: Play Spaces or Spaces with Features for Playing | |
| ST3-2 | Recharge Spaces: Solitude Spaces of Spaces with Features for Solitude Activities | |
| ST3-3 | Recharge Spaces: Fitness Spaces or Features for Fitness | |
| **HEALTHFULNESS** | | |
| H1-1 | Healthfulness: Cleaning Materials and Products | |
| H1-2 | Healthfulness: Cleanliness & Maintenance of the Usable Spaces | |
| H1-3 | Healthfulness: Access to Fresh Drinking Water | |
| | | 0 |
| **TOTAL** | | 0 |

CAPTIW © Scorecard with a Set of Objective and Prescriptive Measures

**4. BENCHMARK FUNCTION**: CAPTIW© offers a benchmark of top performing innovative companies within the data pool. So, individual companies' projects can be measured against the benchmark to easily understand their strengths and opportunities to transform workspaces to support organizational innovation strategies and performance.

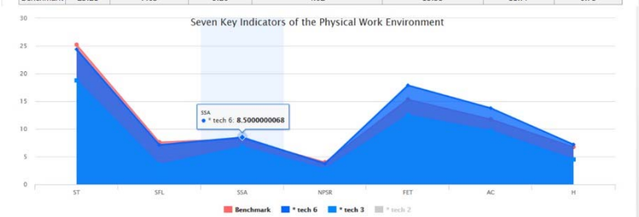



CAPTIW © Analysis against the Benchmark

**5. COMPARATIVE ASSESSMENT BETWEEN MULTIPLE PROJECTS**: The "Compare" function in CAPTIW© allows organizations to compare and contrast between multiple projects they manage. They can easily understand underperforming and high-performing areas of physical workspaces between different workplaces they manage. They can also use the "Compare" function to examine the workplace improvements between Pre and Post scenarios, or workspace changes to better align the workplace with the organizational innovation strategies.

**Seven Key Indicators of the Physical Work Environment Scores**

| | ST: Space Type | SFL: Space & Furniture Layout | SSA: Space Size & Access | NPSR: Neural & Psychological Stimulation & Relaxation | FET: Furniture Ergonomics & Technology | AC: Ambient Conditions | H: Healthfulness |
|---|---|---|---|---|---|---|---|
| * tech 6 | 24.38 | 7.13 | 8.50 | 3.76 | 17.88 | 13.77 | 7.20 |
| * tech 3 | 18.75 | 3.56 | 6.80 | 2.77 | 12.46 | 9.71 | 4.50 |
| * tech 2 | 26.26 | 7.13 | 8.93 | 3.96 | 15.71 | 14.06 | 7.65 |
| Benchmark | 25.21 | 7.63 | 8.26 | 4.02 | 15.35 | 11.77 | 6.75 |

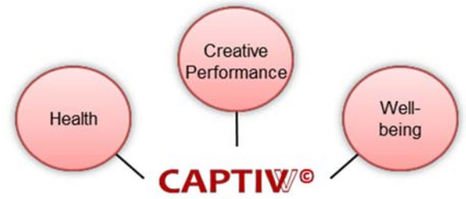



CAPTIW © Analysis of Comparative Assessment between Multiple Projects

**6. ENCOMPASSING PERFORMANCE, HEALTH & WELLBEING INDICATORS**: CAPTIW© employs a more comprehensive way to measuring workplace performance by



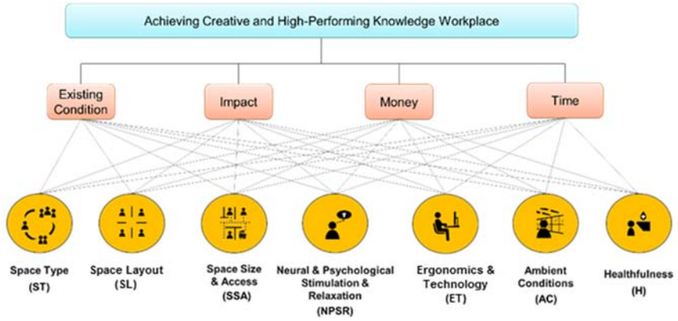
implementing health and wellbeing indicators of workspaces that affect worker productivity. Health and well-being indicators of workspaces that have shown the links to worker productivity were identified via literature review and employed to CAPTIW© to offer a more comprehensive and balanced assessment for workspace performance.




| Cognitive & Psychological Function Factors | KPI | Physical Health, Fitness & Comfort Factors |
|---|---|---|
| ST 1. Choice of Work Spaces<br>ST 2. Interaction – Collaboration Work Spaces<br>ST 3. Recharge Spaces | ST | ST 3. Recharge Spaces |
| SFL 1. Flexibility<br>SFL 2. Flow and connectivity | SL | |
| | SSA | SSA 1. Amount of Spaces<br>SSA2. Access to Equipment |
| NPSR 1. Unique/ Fun Atmosphere<br>NPSR 2. Stimulation of Senses<br>NPSR 3. Relaxing Environment | NPSR | |
| | ET | FET 1. Furniture Ergonomics<br>FET 2. Technology |
| AC 1. Acoustics<br>AC 2. Visual Comfort<br>AC 3. Thermal Comfort<br>AC 4. Indoor Air Quality | AC | AC 1. Acoustics<br>AC 2. Visual Comfort<br>AC 3. Thermal Comfort<br>AC 4. Indoor Air Quality |
| | H | H 1. Healthfulness |

CAPTIW © Measures Encompassing Productivity, Health, and Well-being

**7. ANALYTIC HIERARCHY PROCESS**: CAPTIW© integrates the Analytic Hierarchy Process (AHP) to assess the performance of workspaces. AHP is a multi-criteria decision-making technique based on mathematics and psychology to determine the priorities of intangible items. AHP is implemented to CAPTIW© to offer prioritized KPIs for organizations to easily understand and target higher priorities that have the most impact for the financial and resource investment, when deciding workspace changes to better align with organizational innovation strategies. The priorities of KPIs were determined based on the concept of best solutions when considering the four most important factors when changing the workspaces: impact, money, time, and existing conditions for changes.




AHP's Multiple Pair-Wise Comparisons to Determine Priorities among KPIs



# CLIENT WORKPLACE PROFILE

## 1. CLIENT

The American Society of Interior Designers (ASID). ASID is a non-profit organization that is the oldest, largest leading professional organization for interior designers. Through education, knowledge sharing, advocacy, community building and outreach, ASID strives to advance the interior design profession and, in the process, to demonstrate and celebrate the power of design to positively change people's lives (from the ASID website). The new ASID workplace is annotated as "ASID HQ Workplace" in the database and will be named such way henceforth in the report.

## 2. FACILITIES

- ❑ Location: Washington, D.C.
- ❑ Size: 8,500 SF
- ❑ Percentage of revenue growth from this location/facility in the last three years: 5% (note: non-profit organization)
- ❑ Percentage of employment growth from this location/facility: 0% (note: non-profit organization)
- ❑ Performance indicators currently used to monitor the performance of the long term strategic objectives:
  - o Gross margin/operating margin growth
  - o Market/customer share growth
  - o Increased sale of new products
  - o Sales/income growth
  - o Increased customer satisfaction
  - o Improved delivery time
- ❑ The implementation degree of Innovation strategies currently used:
  - o Fully implemented:
    - i. There is a system in place for evaluating and developing innovative ideas put forward by employees
    - ii. Senior management supports trial-and-error testing of new ideas
    - iii. Senior management is willing to take risks to support an innovation
    - iv. Your employees are highly motivated to think of new ideas and take part in their development
    - v. There is a mature culture established for your employees to be supportive of change and innovation
    - vi. New or substantially changed products or services are independently evaluated after completion
    - vii. Evaluation results are used to improve [your branch's / your company's innovation practices
    - viii. Client satisfaction surveys are conducted after implementing new or substantially changed products or services

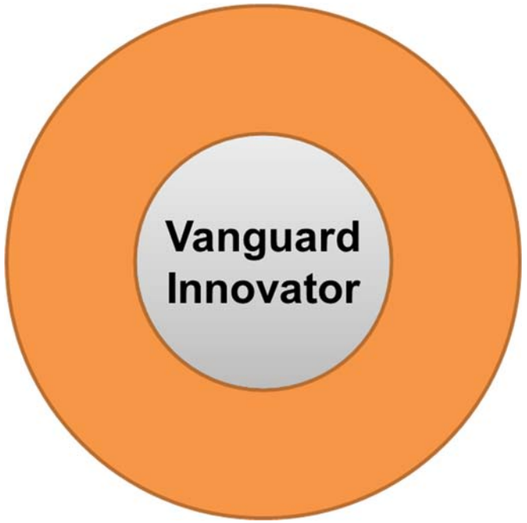


  - o Partly implemented:
    - i. All employees who are in the position to provide ideas for innovations are provided with feedback
    - ii. Specific people are assigned to an innovation to take it from the idea stage to completion
    - iii. Sufficient resources necessary to your company/branch of company are available to develop an innovation
    - iv. Clients are actively involved in the design or planning of new or substantially changed products or services

# PERFORMANCE OVERVIEW



## 1. OVERALL PERFORMANCE CLASSIFICATION

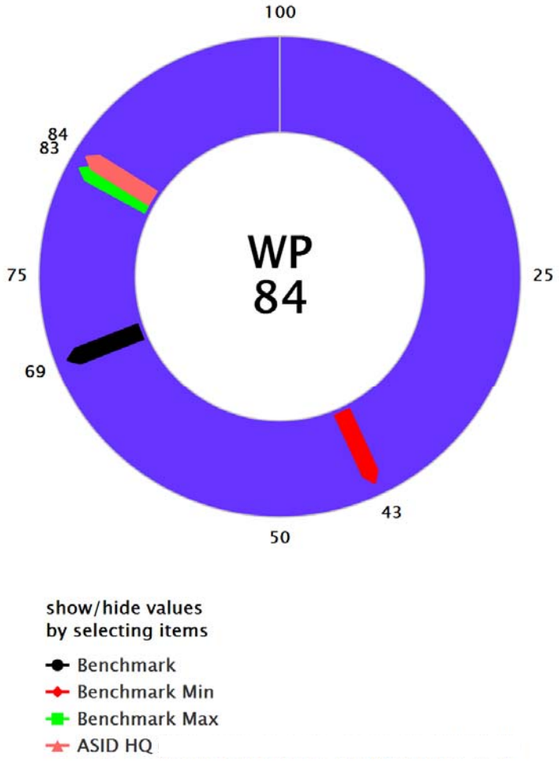



**Vanguard Innovator Type**

Your company's workplace performance is specified as the ***Vanguard Innovator*** *Type*. A ***Vanguard Innovator*** workplace, in general, has minimum environmental constraints in utilizing the physical work environment to align it with the organizational innovation strategies and goals. A ***Vanguard Innovator*** workplace has an excellent organizational capacity in implementing systematic strategic planning to the work environment to support employees' activities and tasks to produce innovations due to this reason. The organizational innovation performance of a ***Vanguard Innovator*** workplace is superb. This is due to the advantages in inspiriting organizational culture and leadership, efficient work processes, and motivated people.

As the physical work environment is aligned within the ***Vanguard Innovator*** workplace, a greater innovation performance are achieved and even further organizational growth will be expected. Sustainable acquisition and retention of more talented individuals will also be attainable. It seems that the senior management understands the role of the work environment in order to align it with the core visions and strategies for the growth of the innovative performance of the company. This report provides a thorough examination of the workspace performance of your company in relation to the innovation strategies and performance of the company, and offers a comprehensive list of recommendations.

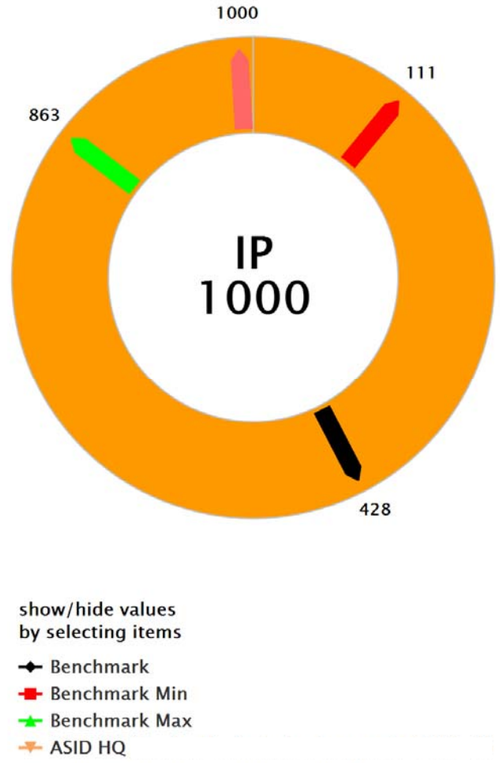
## 2. Overall Workplace Performance (WP)




The total score of your ***Workplace Performance*** in supporting creativity and innovation is 84 (accurately 83.85), while the benchmark score is 69 (accurately 69.06). This is 14.79 (19.34%) higher than the benchmark. The highest score in the benchmark pool is 83, and the lowest score in the benchmark pool is 68 out of the possible 100 points. This score falls below the fourth quartile, which is the highest performance group.
(* scores are rounded-up in the graphs)



## 3. Overall Innovation Performance (IP)




The overall ***Innovation Performance*** score of your company is 1000 (accurately 1000), while the benchmark score is 428 (accurately 428.17). This is 80.08% higher than the benchmark. The highest score in the benchmark pool is 863, and the lowest score in the benchmark pool is 111. This score falls into the fourth quartile, which is the highest performance group.

# WORKPLACE PERFORMANCE & INNOVATION PERFORMANCE



## 1. PERFORMANCE BY KEY INDICATORS OF WORKPLACE PERFORMANCE

### 1.1. Comparison among the Seven KPIs

The highest key performance indicator (KPI) among the seven KPIs of your workplace is ***ST: Space Type*** (20.63), followed by AC: Ambient Conditions (14.64) and ET: Ergonomics and Technology (14.63). The lowest KPI in your workplace is ***NPSR: Neural & Psychological Stimulation & Relaxation*** (5.94), followed by H: Healthfulness.

| | Seven Key Performance Indicators (KPIs) of the Workplace | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|
| | ST: Space Type | SL: Space Layout | SSA: Space Size & Access | NPSR: Neural & Psychological Stimulation & Relaxation | ET: Ergonomics & Technology | AC: Ambient Conditions | H: Healthfulness | |
| ASID HQ | 20.63 | 9.72 | 10.20 | 5.94 | 14.63 | 14.64 | 8.10 | 83.85 |
| Total Available Points* | 22.5 | 13.6 | 10.2 | 9.5 | 19.5 | 16.5 | 8.2 | 100 |

ASID HQ Workplace Performance in Seven KPIs

Due to the different significance weights calculated and applied to the seven KPIs based on the prioritization of the Analytic Hierarchy Process (AHP), the expected rankings are in this order, when the performance of the seven KPIs in your workplace is normal:

- ST (1) > ET (2) > AC (3) > SL (4) > SSA (5) > NPSR (6) > H (7)

The order in your workplace is:

- ST (1) > AC (2) > ET (3) > SSA (4) > SL (5) > H (6) > NPSR (7)

The ranking of the KPIs that is lower than the normal order means substandard performance. This is because the score is lower than the expected score, despite the fact that a higher significance weight was applied. However, the performance difference between ET: Ergonomics and Technology and AC: Ambient Conditions in your workplace is considerably minimum and it is difficult to say that the difference in order between two KPI significantly affect the workplace performance. This is also true with the performance difference between SL: Space Layout and SSA: Space Size and Access.

* Point after the significance weighting was applied.

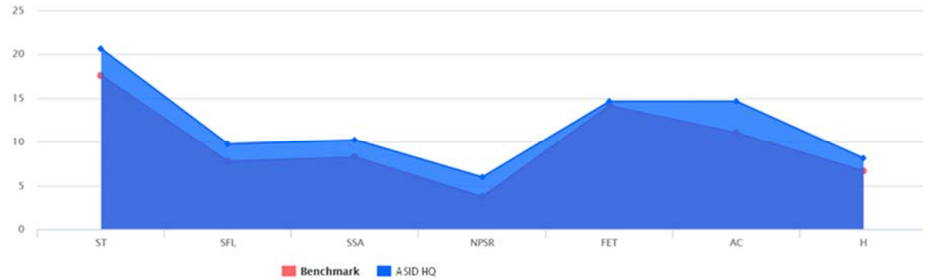
### 1.2. Comparison among the Seven KPIs

In comparison to the benchmark, all seven KPIs of your workplace exhibited higher scores than the benchmark. Among them, the highest KPI score calculated as a ratio to the

benchmark is from ***NPSR: Neural & Psychological Stimulation and Relaxation.*** The ratio of the NPSR performance of your workplace is 46.79% higher than the one of the benchmark. While the actual scores in NPSR between your workplace and the benchmark do not exhibit a significant difference, the ratio difference tells that there is a significant difference. The lowest KPI score calculated as a ratio to the benchmark is from ***ET: Ergonomics and Technology***. The ratio of the ET performance of your workplace is 3.29% higher than the one of the benchmark.

Below presents the comparison of the seven KPIs of Workplace Performance between your workplace and the benchmark.

| Seven Key Performance Indicators of the Workplace | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|
| | ST: Space Type | SL: Space Layout | SSA: Space Size & Access | NPSR: Neural & Psychological Stimulation & Relaxation | ET: Ergonomics & Technology | AC: Ambient Conditions | H: Healthfulness | |
| ASID HQ | 20.63 | 9.72 | 10.20 | 5.94 | 14.63 | 14.64 | 8.10 | 83.86 |
| Benchmark | 17.58 | 7.73 | 8.23 | 3.69 | 14.15 | 11.03 | 6.64 | 69.05 |
| Ratio | 15.95% | 22.81% | 21.38% | 46.73% | 3.34% | 28.13% | 19.81% | 19.37% |
| Total Available Points* | 22.5 | 13.6 | 10.2 | 9.5 | 19.5 | 16.5 | 8.2 | 100 |




Workplace Performance Comparison between ASID HQ and Benchmark in Seven KPIs

## 2. Performance by Key Indicators of Innovation Performance

### 2.1. Comparison among the Four KPIs

The highest KPI among the four KPIs of the innovation is ***PI: Product Innovation*** (727.27), followed by PRI: Process Innovation and OI (Organizational Innovation). These three KPIs are the only relevant indicators related to the type of business that your workplace conducts. The



other two indicators, including MI: Marketing Innovation and IP: Intellectual Property were determined irrelevant/ inapplicable to your workplace by your company.

| Innovation Performance | | | | | | |
|---|---|---|---|---|---|---|
| | PI: Product Innovation | PRI: Process Innovation | OI: Organizational Innovation | MI: Marketing Innovation | IP: Intellectual Property | Total |
| ASID HQ | 727.27 | 212.12 | 60.61 | N/A | N/A | 1000 |

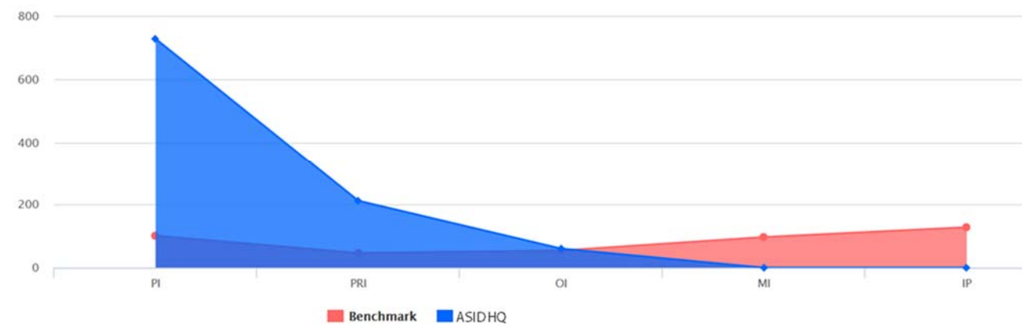
ASID HQ Innovation Performance

### 2.2. Comparison to the Benchmark

In comparison to the benchmark, ***PI: Product Innovation*** (727.27) scored substantially higher than 101.32 of the benchmark. This is 151.09% higher than the benchmark. ***PRI: Process Innovation*** (212.12) was also substantially higher than 46.70 of the benchmark, which was 127.83% higher than the benchmark. ***OI: Organizational Innovation*** (60.61) was 10.40% higher than the benchmark. The other indicators were determined irrelevant/ inapplicable to your workplace by your company.

Below presents the comparison of the five KPIs of Innovation Performance between your company and the benchmark

| Innovation Performance | | | | | | |
|---|---|---|---|---|---|---|
| | PI: Product Innovation | PRI: Process Innovation | OI: Organizational Innovation | MI: Marketing Innovation | IP: Intellectual Property | Total |
| ASID HQ | 727.27 | 212.12 | 60.61 | N/A | N/A | 1000 |
| Benchmark | 101.32 | 46.70 | 54.62 | - | - | 428.17 |
| Ratio | 151.09% | 127.83% | 10.40% | - | - | 80.08 |




Innovation Performance Comparison between ASID HQ Workplace and Benchmark

# WORKPLACE PERFORMANCE & INNOVATION STRATEGIES



## 1. STRENGTHS & OPPORTUNITIES

The most important organizational pursuits towards innovation that your company chose include:

| The top three most important organizational pursuits to your company towards innovation |
|---|
| **In Organizational Environment and Culture** |
| Freedom/ Autonomy |
| Trust & Openness |
| Good Communication |
| **In Work Process** |
| Knowledge Share |
| Collaboration |
| Work Flow |
| **In People** |
| Cognitive style and psychological process conducive to creativity |
| Individual Performance, Health and Well-being |

### 1.1. Organizational Environment and Culture

#### 1.1.1. Freedom and Autonomy

**Freedom and Autonomy** are at the core of a highly professional knowledge workplace working towards innovation. **Freedom and Autonomy** allow employees to exercise control and decision-making over their work and the environment, which promotes opportunities to act on their intuition and creativity. As job demands increase and pursuits for innovation become intense in knowledge-intensive workplaces, higher individual control over work is necessary to enhance their intrinsic work motivation, and reduce physical stress and fatigue, and emotional distress. Organizational culture of **Freedom and Autonomy** can be promoted by certain types of sub-KPIs in workspaces, including:

***ST 1*** *Choice of Work Spaces for Focus, Collaboration, and Socialization Tasks;* ***ST 3*** *Recharge Spaces for Play, Solitude, Fitness, Socialization, and Outdoor;* ***SL 1-1*** *Expandability;* ***SL 1-2*** *Versatility; and SL 1-3 Convertibility.*

All the scores of sub-KPIs relevant to **Freedom and Autonomy** in your workplace are fairly close to the benchmark, whether the score is above or below the benchmark. The only sub-KPI higher than the benchmark is SL 1-1 Versatility (3), while the lowest score is from ST 1-3 Recharge Spaces (0). These indicate a need of flexible spaces and enough places to take mental breaks to recharge and retreat for mental fatigue.

Below presents the performance of the sub-KPIs in your workplace that promote Freedom and Autonomy of the organizational culture.

| In Organizational Environment and Culture | | | | |
|---|---|---|---|---|
| Freedom & Autonomy | | | | |
| Critical Key Indicators of the Workspaces | Current Project Score | Benchmark Score | Strengths | Opportunities |
| Choice of Work Spaces (st_1) | 3 | 3.25 | | ✓ |
| Recharge Spaces (st_3) | 0 | 1.38 | | ✓ |
| Expandability (sl_1_1) | 2 | 2.25 | | ✓ |
| Versatility (sl_1_2) | 3 | 2.75 | ✓ | |
| Convertibility (sl_1_3) | 2 | 2.50 | | ✓ |

ASID HQ Workplace Performance in Freedom & Autonomy

### 1.1.2. Trust and Openness

In order for innovation to flourish in your organization, a culture of **Trust and Openness** must be established. There is a strong relationship between organizational culture of trust and innovation performance. In addition, **Trust and Openness** must be established to create a culture of freedom and autonomy in the workplace. Organizational culture of **Trust and Openness** can be promoted by certain types of sub-KPIs in workspaces, including:

***ST 1** Choice of Work Spaces for Focus, Collaboration, and Socialization Tasks; **ST 3** Recharge Spaces for Play, Solitude, Fitness, Socialization, and Outdoor; **SL 2-1** Visual Connection between People; **SL 2-4** Non-Hierarchical Space Planning; **NPSR 3-1** Natural Elements Integration; and **NPSR 3-2** Home-Like Settings.*

Regarding sub-KPIs enhancing **Trust and Openness**, your workplace has scored substantially higher than the benchmark in ***SL 2-1 Visual Connectivity*** *(6)* and ***SL 2-4 Non-Hierarchical Spaces*** *(6).* ***NPSR 3-1 Natural Elements*** (6) is also well achieved above the benchmark (3.75). These indicate that your workplace greatly enhanced space planning that provided transparency and openness through visual access between people at work as well as implemented space planning that blurred the traditional power structure to empower people. In addition, your workplace provided natural features to reduce stress and increase relaxation critical to creativity and innovation.

Below presents the performance of the sub-KPIs in your workplace that promote Trust and Openness of the organizational culture.



| In Organizational Environment and Culture | | | | |
|---|---|---|---|---|
| Trust & Openness | | | | |
| Critical Key Indicators of the Workspaces | Current Project Score | Benchmark Score | Strengths | Opportunities |
| Choice of Work Spaces (st_1_1,2,3) | 3 | 3.25 | | ✓ |
| Recharge Spaces (st_3_1,2,3,4,5) | 0 | 1.38 | | ✓ |
| Visual Connectivity (sl_2_1) | 5 | 4.63 | ✓ | |
| Non-Hierarchical Spaces (sl_2_4) | 6 | 4.50 | ✓ | |
| Natural Elements (npsr_3_1) | 6 | 3.75 | ✓ | |
| Home-Like Settings (npsr_3_2) | 1 | 2.25 | | ✓ |

ASID HQ Workplace Performance in Trust & Openness

### 1.1.3. Good Communication

Good Communication is a prerequisite for innovation. Communication is a key driver of innovation success as Good Communication between management and other employees can contribute to creating the organizational ambience of encouraging innovation and creative ideas. It can also contribute to the synergetic relationships between team members working together towards innovation. Organizational culture of Good Communication can be promoted by certain types of sub-KPIs in workspaces, including:

***SL 2-1** Visual Connection between People; **SL 2-2** Core Interaction Networks; **SL 2-3** Cross-Pollination; **SL 2-4** Non-Hierarchical Space Planning; **ET 2-1** Low-Tech Collaborative Tools; **ET 2-2** High-Tech Collaborative Tools; and **ET 2-3** Visualization of Organizational Goals and Encouragement of Creativity & Innovation by Using Technology.*

All four sub-KPIs in **SL 2 Flow and Connectivity** showed superb performance enhancing organizational communication, including two components for successful information flow: ***SL 2-2 Core Interaction Networks*** (6), and ***SL 2-3 Cross-Pollination*** (6), and the other two components for openness: ***SL 2-1 Visual Connectivity*** and ***SL 2-4 Non-Hierarchical Spaces***. In addition, the performance of ***ET 2-1 High-Tech Collaborative Tools*** (5) also greatly contributes to organizational communication beyond the benchmark (4.75). However, **Technology** was not utilized as a means to visualize organizational goals and encouragement of creativity and innovation.

Below presents the performance of the sub-KPIs in your workplace that promote **Good Communication** of the organizational culture.

| In Organizational Environment and Culture | | | | |
|---|---|---|---|---|
| Good Communications | | | | |
| Critical Key Indicators of the Workspaces | Current Project Score | Benchmark Score | Strengths | Opportunities |
| Visual Connectivity (sl_2_1) | 5 | 4.63 | ✓ | |
| Core Interaction Networks (sl_2_2) | 6 | 3.50 | ✓ | |
| Cross-Pollination (sl_2_3) | 6 | 3.75 | ✓ | |
| Non-Hierarchical Spaces (sl_2_4) | 6 | 4.50 | ✓ | |
| Low-Tech Collaborative Tools (et_2_1) | 3 | 3.75 | | ✓ |
| High-Tech Collaborative Tools (et_2_2) | 5 | 4.75 | ✓ | |
| Visualization of Organizational Goals & Encouragement (et_2_3) | 1 | 3.88 | | ✓ |

ASID HQ Workplace Performance in Good Communication

## 1.2. Work Process

### 1.2.1. Knowledge Share

Knowledge or expertise within an organization is an organizational asset. Many studies show that **Knowledge Share** is directly linked to the organizational innovation performance. This is because innovations heavily rely on knowledge and expertise of employees in the value creation process. **Knowledge Share** in the process of work within the organization can be promoted by certain types of sub-KPIs in workspaces, including:

***ST 2*** *Interaction-Collaboration Work Spaces for Formal, Informal, and Impromptu Meetings;* ***ST 3-4*** *Social Spaces or Spaces with Features for Socialization;* ***SL 2-1*** *Visual Connection between People;* ***SL 2-2*** *Core Interaction Networks;* ***SL 2-3*** *Cross-pollination;* ***SL 2-4*** *Non-Hierarchical Space Planning;* ***ET 2-1*** *Low-Tech Collaborative Tools; and* ***ET 2-2*** *High-Tech Collaborative*

All sub-KPIs contributing to organizational **Knowledge Share** except one are well achieved above the benchmark. These sub-KPIs include all sub-KPIs in **ST 2 Interaction-Collaboration Spaces** (4), **ST 3-4 Social Spaces** (3), as well as all the sub-KPIs in **SL 2 Flow & Connectivity**. In addition, ET 2-2 High-Tech Collaborative Tools (5) is also well achieved above the benchmark, contributing to enhance organizational **Knowledge Share**.

Below presents the performance of the sub-KPIs in your workplace that promote **Knowledge Share**.



| In Work Process | | | | |
|---|---|---|---|---|
| Knowledge Share | | | | |
| Critical Key Indicators of the Workspaces | Current Project Score | Benchmark Score | Strengths | Opportunities |
| Interaction-Collaboration Work Spaces (st_2_1,2,3) | 4 | 2.00 | ✓ | |
| Social Spaces or Spaces with Features for Socialization (st_3_4) | 3 | 2.50 | ✓ | |
| Visual Connectivity (sl_2_1) | 5 | 4.63 | ✓ | |
| Core Interaction Networks (sl_2_2) | 6 | 3.50 | ✓ | |
| Cross-Pollination (sl_2_3) | 6 | 3.75 | ✓ | |
| Non-Hierarchical Spaces (sl_2_4) | 6 | 4.50 | ✓ | |
| Low-Tech Collaborative Tools (et_2_1) | 3 | 3.75 | | ✓ |
| High-Tech Collaborative Tools (et_2_2) | 5 | 4.75 | ✓ | |

ASID HQ Workplace Performance in Knowledge Share

### 1.2.2. Collaboration

**Collaboration** is a key instigator of innovation. A study of Measuring Innovation by OECD (Organisation for Economic Cooperation and Development) has found that innovative companies strategically use collaboration to extend the scope of a project or to complement companies' competencies. **Collaboration** is also used in innovation processes regardless of the level of the firm's engagement with R&D. Thus, policies and strategies to stimulate **Collaboration** and network initiatives have an impact on the entire spectrum of innovation performance of companies.[2] **Collaboration** in the work process can be promoted by certain types of sub-KPIs in workspaces, including:

***ST 2*** *Interaction-Collaboration Work Spaces for Formal, Informal, and Impromptu Meetings;* ***SL 1-1*** *Expandability;* ***SL 1-2*** *Versatility;* ***SL 1-3*** *Convertibility;* ***SL 2-2*** *Core Interaction Networks;* ***SL 2-3*** *Cross-Pollination;* ***ET 2-1*** *Low-Tech Collaborative Tools; and* ***ET 2-2*** *High-Tech Collaborative Tools.*

In addition to the features already mentioned in the previous pages, among the sub-KPI related to enhancing **Collaboration**, only one sub-KPI in **SL 1: Flexibility** is higher performing: ***SL 1-2 Versatility*** (3) than the benchmark (2.75). The other two sub-KPIs are slightly below the benchmark but not substantially lower than the benchmark: ***SL 1-1 Expandability*** (2), and ***SL 1-3 Convertibility*** (2).

Below presents the performance of the sub-KPIs in your workplace that promote Collaboration in the work process.

| In Work Process | | | | |
|---|---|---|---|---|
| Collaboration | | | | |
| Critical Key Indicators of the Workspaces | Current Project Score | Benchmark Score | Strengths | Opportunities |
| Interaction-Collaboration Work Spaces (st_2) | 4 | 2.00 | ✓ | |
| Expandability (sl_1_1) | 2 | 2.25 | | ✓ |
| Versatility (sl_1_2) | 3 | 2.75 | ✓ | |
| Convertibility (sl_1_3) | 2 | 2.50 | | ✓ |
| Core Interaction Networks (sl_2_2) | 6 | 3.50 | ✓ | |
| Cross-Pollination (sl_2_3) | 6 | 3.75 | ✓ | |
| Low-Tech Collaborative Tools (et_2_1) | 3 | 3.75 | | ✓ |
| High-Tech Collaborative Tools (et_2_2) | 5 | 4.75 | ✓ | |

ASID HQ Workplace Performance in Collaboration

### 1.2.3. Work Flow

**Work Flow** enables the efficient delivery from collaborative efforts to innovative products and services that add values to the customers or financial returns to the companies. Successful innovation requires cross-functional collaborations between teams, and an innovation workflow capability ensures these collaborations towards innovation. The underlying workflow management process ensures timely communication and completion of task assignments for successful innovation initiatives. **Work Flow** in the work process can be promoted by certain types of sub-KPIs in workspaces, including:

***SL 1-1*** *Expandability;* ***SL 1-2*** *Versatility;* ***SL 1-3*** *Convertibility;* ***SL 2-1*** *Visual Connection between People;* ***SL 2-2*** *Core Interaction Networks;* ***SL 2-3*** *Cross-Pollination;* ***SL 2-4*** *Non-Hierarchical Space Planning;* ***ET 2-1*** *Low-Tech Collaborative Tools; and* ***ET 2-2*** *High-Tech Collaborative Tools.*

Among the sub-KPIs promoting **Work Flow**, all sub-KPIs in ***SL 2 Flow and Connectivity*** are high performing as well as **SL 1-2 Versatility**. Performance levels of SL 1-1 Expandability, SL 1-3 Convertibility, and ET 2-1 Low-Tech Collaborative Tools are slightly below the benchmark abut not substantially lower than the benchmark.

Below presents the performance of the sub-KPIs in your workplace that promote Work Flow in the work process.



| In Work Process | | | | |
|---|---|---|---|---|
| Work Flow | | | | |
| Critical Key Indicators of the Workspaces | Current Project Score | Benchmark Score | Strengths | Opportunities |
| Expandability (sl_1_1) | 2 | 2.25 | | ✓ |
| Versatility (sl_1_2) | 3 | 2.75 | ✓ | |
| Convertibility (sl_1_3) | 2 | 2.50 | | ✓ |
| Visual Connectivity (sl_2_1) | 5 | 4.63 | ✓ | |
| Core Interaction Networks (sl_2_2) | 6 | 3.50 | ✓ | |
| Cross-Pollination (sl_2_3) | 6 | 3.75 | ✓ | |
| Non-Hierarchical Spaces (sl_2_4) | 6 | 4.50 | ✓ | |
| Low-Tech Collaborative Tools (et_2_1) | 3 | 3.75 | | ✓ |
| High-Tech Collaborative Tools (et_2_2) | 5 | 4.75 | ✓ | |

ASID HQ Workplace Performance in Work Flow

## 1.3. People

### 1.3.1. Cognitive Style and Psychological Process Conducive to Creativity & Innovation

People are at the core of innovation. The other components of innovation: physical workspaces, organizational culture, and work process are the means to help people effectively achieve innovation, while actual innovation rests within the human capacity of being creative. **Individual Cognitive Style and Psychological Process Conducive to Creativity and Innovation** can be promoted by various types of sub-KPIs in workspaces, including:

***ST 1*** *Choice of Work Spaces for Focus, Collaboration, and Socialization Tasks;* ***ST 2*** *Interaction-Collaboration Spaces for Formal, Informal, and Impromptu Meetings;* ***ST 3*** *Recharge Spaces for Play, Solitude, Fitness, Socialization, and Outdoor;* ***SL 1-1*** *Expandability;* ***SL 1-2*** *Versatility;* ***SL 1-3*** *Convertibility;* ***SL 2-2*** *Core Interaction Networks,* ***SL 2-3*** *Cross-Pollination;* ***NPSR 1-1*** *Stimulating Art/Design/Craft Work;* ***NPSR 1-2*** *Unconventional Interior Elements;* ***NPSR 1-3*** *Whimsical & Fun Decorative Objects;* ***NPSR 2-1*** *Olfactory Stimulation;* ***NPSR 2-2*** *Auditory Stimulation;* ***NPSR 2-3*** *Visual Stimulation;* ***NPSR 3-1*** *Natural Elements;* ***NPSR 3-4*** *Home-Like Settings;* ***AC 1-1*** *Use of Space Planning Principles to Reduce Noises;* ***AC 1-2*** *Materials & Systems Furniture with Acoustic Properties;* ***AC 1-3*** *Isolation of Noisy Spaces;* ***AC 1-4*** *Use & Compliance of Acoustics Guidelines/ Standards;* ***AC 2-1*** *Amount of Light;* ***AC 2-2*** *Access to Daylight;* ***AC 2-3*** *Glare & Reflection Control;* ***AC 2-4*** *View to Outdoor;* ***AC 2-5*** *Occupant Control of Lighting;* ***AC 3-1*** *Temperature & Humidity;* ***AC 3-2*** *Occupant Control of Thermal Comfort;* ***AC 3-3*** *Use & Compliance of Thermal Comfort Guidelines/ Standards;* ***AC 4-1*** *Indoor Odor;* ***AC 4-2*** *Fresh Air/ Stale Air;* ***AC 4-3*** *Air Movement/ Draft;* ***AC 4-4*** *Isolation & Removal of Chemicals, Particles & Irritant from Indoor Air;* ***AC 4-5*** *Low Emitting Finishes & Furnishings;* ***AC 4-6*** *Occupant Control of Indoor Air Quality; and* ***AC 4-7*** *Use & Compliance of Indoor Air Quality.*

In addition to the well-established sub-KPIs mentioned in the previous pages, your workplace shows highly performing indoor environmental quality above the benchmark in all four categories overall: ***AC 1 Acoustics***, ***AC 2 Visual Comfort***, ***AC 3 Thermal Comfort***, and ***AC 4 Indoor Air Quality***. The only negative features were no occupant control over indoor air quality and thermal comfort. All three sub-KPIs in ***NPSR 1 Unique/Fun Atmosphere*** also exhibited high performance, including ***NPSR 1-1 Stimulating Art/Design/Craft Work*** (6), ***NPSR 1-2 Unconventional Interior Elements*** (5), and ***NPSR 1-3 Whimsical & Fun Decorative Objects*** (5). Lastly, the workplace is equipped with highly sense-stimulating features as shown in ***NPSR 2-1 Olfactory Stimulation*** (1) and ***NPSR 2-3 Visual Stimulation*** (6).

Below presents the performance of the sub-KPIs in your workplace that promote **Individual Cognitive Style and Psychological Process Conducive to Creativity & Innovation**.

| In People | | | | |
|---|---|---|---|---|
| Cognitive Style and Psychological Process Conducive to Creativity & Innovation | | | | |
| Critical Key Indicators of the Workspaces | Current Project Score | Benchmark Score | Strengths | Opportunities |
| Choice of Work Spaces (st_1_1,2,3) | 3 | 3.25 | | ✓ |
| Interaction-Collaboration Spaces (st_2_1,2,3) | 4 | 2.00 | ✓ | |
| Recharge Spaces (st_3_1,2,3,4,5) | 0 | 1.38 | | ✓ |
| Expandability (sl_1_1) | 2 | 2.25 | | ✓ |
| Versatility (sl_1_2) | 3 | 2.75 | ✓ | |
| Convertibility (sl_1_3) | 2 | 2.50 | | ✓ |
| Core Interaction Networks (sl_2_2) | 6 | 3.50 | ✓ | |
| Cross Pollination (sl_2_3) | 6 | 3.75 | ✓ | |
| Stimulating Art/ Design/ Craft Work (npsr_1_1) | 6 | 2.88 | ✓ | |
| Unconventional Interior Elements (npsr_1_2) | 5 | 1.75 | ✓ | |
| Whimsical & Fun Decorative Objects (npsr_1_3) | 5 | 2.00 | ✓ | |
| Olfactory Stimulation (npsr_2_1) | 1 | 0.25 | ✓ | |
| Auditory Stimulation (npsr_2_2) | 0 | 1.88 | | ✓ |
| Visual Stimulation (npsr_2_3) | 6 | 3.88 | ✓ | |
| Natural Elements (npsr_3_1) | 6 | 3.75 | ✓ | |
| Home-Like Settings (npsr_3_2) | 1 | 2.25 | | ✓ |
| Use of Space Planning Principles to Reduce Noises (ac_1_1) | 6 | 3.13 | ✓ | |
| Materials & Systems Furniture with Acoustic Properties (ac_1_2) | 6 | 3.38 | ✓ | |
| Isolation of Noisy Spaces (ac_1_3) | 6 | 4.13 | ✓ | |
| Use & Compliance of Acoustics Guidelines/ Standards (ac_1_4) | 6 | 4.25 | ✓ | |
| Amount of Light (ac_2_1) | 6 | 5.88 | ✓ | |
| Access to Daylight (ac_2_2) | 6 | 3.00 | ✓ | |
| Glare & Reflection Control (ac_2_3) | 6 | 4.25 | ✓ | |
| View to Outdoor (ac_2_4) | 6 | 2.63 | ✓ | |
| Occupant Control of Lighting (ac_2_5) | 6 | 3.63 | ✓ | |
| Temperature & Humidity (ac_3_1) | 5 | 3.50 | ✓ | |
| Occupant Control of Thermal Comfort (ac_3_2) | 0 | 2.75 | | ✓ |
| Use & Compliance of Thermal Comfort Guidelines/ Standards (ac_3_3) | 6 | 4.88 | ✓ | |
| Indoor Air Odor (ac_4_1) | 6 | 5.00 | ✓ | |
| Fresh Air/ Stale Air (ac_4_2) | 6 | 4.64 | ✓ | |
| Air Movement/ Draft (ac_4_3) | 6 | 4.75 | ✓ | |
| Isolation & Removal of Chemicals, Particles, & Irritant from Indoor Air (ac_4_4) | 6 | 5.00 | ✓ | |
| Low Emitting Finishes & Furnishings (ac_4_5) | 6 | 5.00 | ✓ | |
| Occupant Control of Indoor Air Quality (ac_4_6) | 0 | 1.25 | | ✓ |
| Use & Compliance of Indoor Air Quality (ac_4_7) | 6 | 5.13 | ✓ | |

ASID HQ Workplace Performance in Cognitive Style & Psychological Process



### 1.3.2. Individual Performance, Health, and Wellbeing

Individual conditions for the optimum **Performance, Health, and Wellbeing** are a foundation of the organizational innovation performance. Health and wellbeing are two critical premises of an underlying condition for the optimum individual performance, and individual productivity is vastly affected by health and wellbeing. **Individual Performance, Health, and Wellbeing** can be promoted by various types of sub-KPIs in workspaces, including:

***ST 3*** *Recharge Spaces for Focus, Collaboration, and Socialization Tasks;* ***SSA 1-1*** *Individual Work Spaces;* ***SSA 1-2*** *Collaborative Work Spaces;* ***SSA 1-3*** *Storage Spaces;* ***SSA 2-1*** *Easy Access to Equipment;* ***NPSR 1-1*** *Stimulating Art/Design/Craft Work;* ***NPSR 1-2*** *Unconventional Interior Elements;* ***NPSR 1-3*** *Whimsical & Fun Decorative Objects;* ***NPSR 2-1*** *Olfactory Stimulation;* ***NPSR 2-2*** *Auditory Stimulation;* ***NPSR 2-2*** *Auditory Stimulation;* ***NPSR 2-3*** *Visual Stimulation;* ***NPSR 3-1*** *Natural Elements;* ***NPSR 3-2*** *Home-Like Settings;* ***ET 1-1*** *Use of Key Ergonomics Principles;* ***ET 1-2*** *Use & Compliance of Ergonomics Guidelines/ Standards;* ***ET 1-3*** *User Involvement;* ***ET 2-1*** *Low-Tech Collaborative Tools;* ***ET 2-2*** *High-Tech Collaborative Tools;* ***AC 1-1*** *Use of Space Planning Principles to Reduce Noises;* ***AC 1-2*** *Materials & Systems Furniture with Acoustic Properties;* ***AC 1-3*** *Isolation of Noisy Spaces;* ***AC 1-4*** *Use & Compliance of Acoustics Guidelines/ Standards;* ***AC 2-1*** *Amount of Light;* ***AC 2-2*** *Access to Daylight;* ***AC 2-3*** *Glare & Reflection Control;* ***AC 2-4*** *View to Outdoor;* ***AC 2-5*** *Occupant Control of Lighting;* ***AC 3-1*** *Temperature & Humidity;* ***AC 3-2*** *Occupant Control of Thermal Comfort;* ***AC 3-3*** *Use & Compliance of Thermal Comfort Guidelines/ Standards;* ***AC 4-1*** *Indoor Odor;* ***AC 4-2*** *Fresh Air/ Stale Air;* ***AC 4-3*** *Air Movement/ Draft;* ***AC 4-4*** *Isolation & Removal of Chemicals, Particles, & Irritant from Indoor Air;* ***AC 4-5*** *Low Emitting Finishes & Furnishings;* ***AC 4-6*** *Occupant Control of Indoor Air Quality;* ***AC 4-7*** *Use & Compliance of Indoor Air Quality;* ***H 1-1*** *Cleaning Materials & Products;* ***H 1-2*** *Cleaning & Maintenance; and* ***H 1-3*** *Access to Fresh Drinking Water.*

In addition to the features mentioned in the previous pages, all sub-KPIs in ***SSA 1 Amount of Spaces*** and ***SSA 2 Access to Equipment*** achieved highest scores above the benchmark. All three items in ***H: Healthfulness*** also scored highest, above the benchmark. These indicate that your workplace is equipped with appropriate amounts of spaces for individual work spaces, collaborative work spaces, and storages spaces, and everybody has access to clean and fresh drinking water on each floor for appropriate hydration to maintain cognitive and bodily function.

Below presents the performance of the sub-KPIs in your workplace that promote **Individual Performance, Health and Wellbeing**.

| In People | | | | |
|---|---|---|---|---|
| Individual Performance, Health, and Well-being | | | | |
| Critical Key Indicators of the Workspaces | Current Project Score | Benchmark Score | Strengths | Opportunities |
| Recharge Spaces (st_3_1,2,3) | 0 | 1.38 | | ✓ |
| Individual Work Space Sizes (ssa_1_1) | 6 | 4.75 | ✓ | |
| Collaborative Work Spaces Sizes (ssa_1_2) | 6 | 5.00 | ✓ | |
| Storage Spaces (ssa_1_3) | 6 | 4.13 | ✓ | |
| Easy Access to Equipment (ssa_2_1) | 6 | 5.50 | ✓ | |
| Stimulating Art/ De3sign/ Craft Work (npsr_1_1) | 6 | 2.88 | ✓ | |
| Unconventional Functions & Shapes & Dramatic Use of Interior Architectural & Design Elements (npsr_1_2) | 5 | 1.75 | ✓ | |
| Whimsical & Fun Decorative Objects (npsr_1_3) | 5 | 2.00 | ✓ | |
| Olfactory Stimulation (npsr_2_1) | 1 | 0.25 | ✓ | |
| Auditory Stimulation (npsr_2_2) | 0 | 1.88 | | ✓ |
| Visual Stimulation (npsr_2_3) | 6 | 3.88 | ✓ | |
| Natural Elements (npsr_3_1) | 6 | 3.75 | ✓ | |
| Home-Like Settings (npsr_3_2) | 1 | 2.25 | | ✓ |
| Use of Key Ergonomic Principles (et_1_1) | 6 | 5.50 | ✓ | |
| Use & Compliance of Ergonomic Guidelines/ Standards (et_1_2) | 6 | 5.75 | ✓ | |
| User Involvement (et_1_3) | 6 | 2.50 | ✓ | |
| Low-Tech Collaborative Tools (et_2_1) | 3 | 3.75 | | ✓ |
| High-Tech Collaborative Tools (et_2_2) | 5 | 4.75 | ✓ | |
| Use of Space Planning Principles to Reduce Noises (ac_1_1) | 6 | 3.13 | ✓ | |
| Materials & Systems Furniture with Acoustic Properties (ac_1_2) | 6 | 3.38 | ✓ | |
| Isolation of Noisy Spaces (ac_1_3) | 6 | 4.13 | ✓ | |
| Use & Compliance of Acoustics Guidelines/ Standards (ac_1_4) | 6 | 4.25 | ✓ | |
| Amount of Light (ac_2_1) | 6 | 5.88 | ✓ | |
| Access to Daylight (ac_2_2) | 6 | 3.00 | ✓ | |
| Glare & Reflection Control (ac_2_3) | 6 | 4.25 | ✓ | |
| View to Outdoor (ac_2_4) | 6 | 2.63 | ✓ | |
| Occupant Control of Lighting (ac_2_5) | 6 | 3.63 | ✓ | |
| Temperature & Humidity (ac_3_1) | 5 | 3.50 | ✓ | |
| Occupant Control of Thermal Comfort (ac_3_2) | 0 | 2.75 | | ✓ |
| Use & Compliance of Thermal Comfort Guidelines/ Standards (ac_3_3) | 6 | 4.88 | ✓ | |
| Indoor Air Odor (ac_4_1) | 6 | 5.00 | ✓ | |
| Fresh Air/ Stale Air (ac_4_2) | 6 | 4.63 | ✓ | |
| Air Movement/ Draft (ac_4_3) | 6 | 4.75 | ✓ | |
| Isolation & Removal of Chemicals, Particles, & Irritant from Indoor Air (ac_4_4) | 6 | 5.00 | ✓ | |
| Low Emitting Finishes & Furnishings (ac_4_5) | 6 | 5.00 | ✓ | |
| Occupant Control of Indoor Air Quality (ac_4_6) | 0 | 1.25 | | ✓ |
| Use & Compliance of Indoor Air Quality (ac_4_7) | 6 | 5.13 | ✓ | |
| Cleaning Materials & Products (h_1_1) | 6 | 4.38 | ✓ | |
| Cleanliness & Maintenance (h_1_2) | 6 | 5.00 | ✓ | |
| Access to Fresh Drinking Water (h_1_3) | 6 | 5.38 | ✓ | |

ASID HQ Workplace Performance in Individual Performance, Health, & Wellbeing

## 2. Prioritization Of Strengths & Opportunities

As shown in the analysis of the previous pages, multiple KPIs and sub-KPIs of workspaces contribute to promoting various organizational pursuits in innovation strategies critical to organizational creativity and innovation. Some are associated with more diverse organizational



pursuits than others. This is because certain KPIs and sub-KPIs affect a more diverse range of issues in organizational culture, work process, and traits of people necessary in innovation.

While some KPIs and sub-KPIs of workspaces affect a broader range of organizational innovation pursuits than others, the levels of impact/ significance in contributing to innovation also vary among the KPIs and sub-KPIs. Certain KPIs and sub-KPIs may affect a broader range of organizational pursuits but have less impact than others in the overall contribution to achieving the organizational innovation strategies and performance.

In this section of the report, we offer a set of comprehensive recommendations for your workspace solutions by factoring these two issues into the analysis. Innovative Workplace Institute has created a mathematical procedure of determining priorities of workspace solutions by calculating the frequencies as well as the impact factors of KPIs and sub-KPIs in contributing to the organizational pursuits in innovation strategies. In this report, we provide prioritized recommendations specific to your organizational pursuits in innovation strategies by following this process. When determining the impact factors, we've employed a mathematical method of the Analytic Hierarchy Process to the comprehensive and balanced prioritization of KPIs and sub-KPIs that factor in not only the significance of the impact but also the level of resource consumption in time, money, and existing conditions for changing the current workspaces. As a result, your company will be able to understand the best solutions for not only the financial considerations but also the other critical criteria in resources for the balanced decision-making towards possible workspace solutions supporting your organizational pursuits in innovation strategies.

In the recommendation section, we list both greatest strengths and opportunities to your company together instead of focusing only on opportunities. We firmly believe that real opportunities to create a better environment are not only in current deficiencies but also in existing strengths. Your company might feel there is a need for more attention to the areas that are strengths of your workplace and, for the same reason, less attention to the areas that are deficiencies in your workplace. The purpose of our recommendations is to provide guidance to your decisions based on a systematic analysis and diagnosis. Thus, internal discussions and agreement between stakeholders need to follow to determine the best workplace solutions for the current circumstances and future strategic planning of the company.

### 2.1. Workplace KPIs That Are Frequently Linked to Your Organizational Pursuits

#### 2.1.1. Frequency Ranking of Workplace KPIs in Your Company

Our analysis indicates that ***ST 2 Interaction-Collaboration Spaces*** and ***ST 3-4 Recharge Spaces: Social Spaces or Features for Socialization*** are the most frequently linked to your organizational pursuits towards innovation. This means that these sub-KPIs are the features that are necessary to support the most number of a diverse range of issues in organizational culture, work process, and traits of people necessary in innovation. The second most frequently linked to your organizational pursuits for innovation is ***ST 1 Choice of Workspaces: Focus Spaces, Collaboration Spaces, and Socialization Spaces***. Below presents the frequency ranking of the KPIs and sub-KPIs that are linked to the most number of multiple organizational pursuits in your company.

| | Workplace KPIs | Frequency Ranking |
|---|---|---|
| ST 2-1 | Interaction-Collaboration Spaces: Formal Meeting Spaces | 1 |
| ST 2-2 | Interaction-Collaboration Spaces: Informal Meeting Spaces | 1 |
| ST 2-3 | Interaction-Collaboration Spaces: Impromptu Meeting Spaces | 1 |
| ST 3-4 | Recharge Spaces: Social Spaces or Features for Socialization | 1 |
| SL 2-1 | Flow & Connectivity: Visual Connectivity | 1 |
| SL 2-4 | Flow & Connectivity: Non-Hierarchical Spaces | 1 |
| ET 2-1 | Technology: Low-Tech Collaborative Tools | 1 |
| ET 2-2 | Technology: High-Tech Collaborative Tools | 1 |
| ST 1-1 | Choice of Workspaces: Focus Spaces | 2 |
| ST 1-2 | Choice of Workspaces: Collaboration Spaces | 2 |
| ST 1-3 | Choice of Workspaces: Socialization Spaces | 2 |
| SL 2-2 | Flow & Connectivity: Core Interaction Networks | 2 |
| SL 2-3 | Flow & Connectivity: Cross-Pollination | 2 |
| ST 3-1 | Recharge Spaces: Play Spaces or Spaces with Features for Playing | 3 |
| ST 3-2 | Recharge Spaces: Solitude Spaces or Spaces with Features for Solitude Activities | 3 |
| ST 3-3 | Recharge Spaces: Fitness Spaces or Features for Fitness | 3 |
| ST 3-5 | Recharge Spaces: Outdoor Recharge Spaces | 3 |
| SL 1-1 | Flexibility: Expandability | 3 |
| SL 1-2 | Flexibility: Versatility | 3 |
| SL 1-3 | Flexibility: Convertibility | 3 |
| NPSR 1-1 | Unique/Fun Atmosphere: Stimulating Arts | 3 |
| NPSR 1-2 | Unique/Fun Atmosphere: Unconventional Interior Elements | 3 |
| NSPR 1-3 | Unique/Fun Atmosphere: Whimsical/Fun Decorative Objects | 3 |

1: most frequently linked to organizational pursuits in your company
4. frequently linked to your organizational pursuits in your company

### 2.2. Impact Factor Ranking of Workplace KPIs

#### 2.2.1. Impact Factor Ranking of Workplace KPIs

According to the impact factor determined by the Analytic Hierarchy Process, ***ST: Space Type*** has the highest impact factor among the seven KPIs. This means that **Space Type** has the highest impact on achieving a creative and highly innovative knowledge workplace, considering the amount of financial investment and resources required to implement. ***ET: Ergonomics and***



***Technology*** has the second highest impact factor. Below presents the ranking of impact factor among the seven KPIs of workplace.

| | Workplace KPIs | Impact Ranking |
|---|---|---|
| ST 1-1 | Choice of Workspaces: Focus Spaces | 1 |
| ST 1-2 | Choice of Workspaces: Collaboration Spaces | 1 |
| ST 1-3 | Choice of Workspaces: Socialization Spaces | 1 |
| ST 2-1 | Interaction-Collaboration Spaces: Formal Meeting Spaces | 1 |
| ST 2-2 | Interaction-Collaboration Spaces: Formal Meeting Spaces | 1 |
| ST 2-3 | Interaction-Collaboration Spaces: Formal Meeting Spaces | 1 |
| ST 3-1 | Recharge Spaces: Play Spaces or Spaces with Features for Playing | 1 |
| ST 3-2 | Recharge Spaces: Solitude Spaces or Spaces with Features for Solitude Activities | 1 |
| ST 3-3 | Recharge Spaces: Fitness Spaces or Features for Fitness | 1 |
| ST 3-4 | Recharge Spaces: Social Spaces or Features for Socialization | 1 |
| ST 3-5 | Recharge Spaces: Outdoor Recharge Spaces | 1 |
| ET 2-1 | Technology: Low-Tech Collaborative Tools | 2 |
| ET 2-2 | Technology: High-Tech Collaborative Tools | 2 |
| SL 1-1 | Flexibility: Expandability | 4 |
| SL 1-2 | Flexibility: Versatility | 4 |
| SL 1-3 | Flexibility: Convertibility | 4 |
| SL 2-1 | Flow & Connectivity: Visual Connectivity | 4 |
| SL 2-2 | Flow & Connectivity: Core Interaction Networks | 4 |
| SL 2-3 | Flow & Connectivity: Cross-Pollination | 4 |
| SL 2-4 | Flow & Connectivity: Non-Hierarchical Spaces | 4 |
| NPSR 1-1 | Unique/Fun Atmosphere: Stimulating Arts | 6 |
| NPSR 1-2 | Unique/Fun Atmosphere: Unconventional Interior Elements | 6 |
| NPSR 1-3 | Unique/Fun Atmosphere: Whimsical & Fun Decorative Objects | 6 |
| NPSR 2-1 | Stimulation of Senses: Olfactory Stimulation | 6 |
| NPSR 2-2 | Stimulation of Senses: Auditory Stimulation | 6 |
| NPSR 2-3 | Stimulation of Senses: Visual Stimulation | 6 |

1: Highest Impact
Green Number: strengths of the current workplace in your company
Red Number: opportunities of the current workplace in your company

## 2.3. Recommendation for Prioritization of KPIs of Workplace That Are Most Important to Your Company

### 2.3.1. Final Priority Ranking of Workplace KPIs in Your Company

When factoring the previous two issues: frequency ranking and impact factor ranking into the final prioritization procedure to determine the most important KPIs and sub-KPIs specifically recommended to your company, our analysis shows that ***ST 2 Interaction-Collaboration Spaces*** and ***ST 3-4 Recharge Spaces: Social Spaces or Features for Socialization*** are the most important feature in your organization pursuing innovation. These features are currently your strength and a great foundation of your excellent innovation performance***. ET 2 Technology*** is the second most important KPI. However, ***ET 2-2 Technology: High-Tech Collaborative Tools*** is your strength in your workplace, while ***ET 2-1 Technology: Low-Tech Collaborative Tools*** is an opportunity that may need more attention to align your workplace to your organizational innovation pursuits. Below presents the final priority ranking specifically recommended to your company.

| | Workplace KPIs | Priority Ranking |
|---|---|---|
| ST 2-1 | Interaction-Collaboration Spaces: Formal Meeting Spaces | 1 |
| ST 2-2 | Interaction-Collaboration Spaces: Informal Meeting Spaces | 1 |
| ST 2-3 | Interaction-Collaboration Spaces: Impromptu Meeting Spaces | 1 |
| ST 3-4 | Recharge Spaces: Social Spaces or Features for Socialization | 1 |
| ET 2-1 | Technology: Low-Tech Collaborative Tools | 2 |
| ET 2-2 | Technology: High-Tech Collaborative Tools | 2 |
| ST 1-1 | Choice of Workspaces: Focus Spaces | 3 |
| ST 1-2 | Choice of Workspaces: Collaboration Spaces | 3 |
| ST 1-3 | Choice of Workspaces: Socialization Spaces | 3 |
| ST 3-1 | Recharge Spaces: Play Spaces or Spaces with Features for Playing | 4 |
| ST 3-2 | Recharge Spaces: Solitude Spaces or Spaces with Features for Solitude Activities | 4 |
| ST 3-3 | Recharge Spaces: Fitness Spaces or Features for Fitness | 4 |
| ST 3-5 | Recharge Spaces: Outdoor Recharge Spaces | 4 |
| SL 2-1 | Flow & Connectivity: Visual Connectivity | 5 |
| SL 2-4 | Flow & Connectivity: Non-Hierarchical Spaces | 5 |
| SL 2-2 | Flow & Connectivity: Core Interaction Networks | 6 |
| SL 2-3 | Flow & Connectivity: Cross-Pollination | 6 |

1: Highest Impact
Green Number: strengths of the current workplace in your company
Red Number: opportunities of the current workplace in your company



### 2.3.2. Workplace KPIs that are Greatest Strengths to Your Company

Below presents the most important KPIs and sub-KPIs that are recommended to your company and are currently a strength of your workplace.

| | | Workplace KPIs That Are Greatest Strengths | Priority Ranking |
|---|---|---|---|
| | ST 2-1 | Interaction-Collaboration Spaces: Formal Meeting Spaces | 1 |
| | ST 2-2 | Interaction-Collaboration Spaces: Formal Meeting Spaces | 1 |
| | ST 2-3 | Interaction-Collaboration Spaces: Formal Meeting Spaces | 1 |
| | ST 3-4 | Recharge Spaces: Social Spaces or Spaces with Features for Socialization | 1 |
| | ET 2-2 | Technology: High-Tech Collaborative Tools | 2 |
| | SL 2-1 | Flow & Connectivity: Visual Connectivity | 5 |
| | SL 2-4 | Flow & Connectivity: Non-Hierarchical Spaces | 5 |
| | SL 2-2 | Flow & Connectivity: Core Interaction Networks | 6 |
| | SL 2-3 | Flow & Connectivity: Cross-Pollination | 6 |

Highest Priority starts from 1
Green Number: strengths of the current workspaces in your company

### 2.3.3. Workspace KPIs that are Greatest Opportunities to Your Company

Below presents the most important KPIs and sub-KPIs that are recommended to your company and are currently an opportunity of your workplace.

| | | Workplace KPIs That Are Greatest Opportunities | Priority Ranking |
|---|---|---|---|
| | FET 2-1 | Technology: Low-Tech Collaborative Tools | 2 |
| | ST 1-1 | Choice of Workspaces: Focus Spaces | 3 |
| | ST 1-2 | Choice of Workspaces: Collaboration Spaces | 3 |
| | ST 1-3 | Choice of Workspaces: Socialization Spaces | 3 |
| | ST 3-1 | Recharge Spaces: Play Spaces or Spaces with Features for Playing | 4 |
| | ST 3-2 | Recharge Spaces: Solitude Spaces or Spaces with Features for Solitude Activities | 4 |
| | ST 3-3 | Recharge Spaces: Fitness Spaces or Features for Fitness | 4 |
| | ST 3-5 | Recharge Spaces: Outdoor Recharge Spaces | 4 |

1: Highest Priority
Red Number: opportunities of the current workplace in your company\

# RECOMMENDATIONS FOR INNOVATIVE WORKSPACE PERFORMANCE



## 1. INTERACTION-COLLABORATION SPACES

### Formal, Informal, and Impromptu Meeting Spaces

Interaction-collaboration spaces are the meeting spaces with various degrees of supportive tools for idea generation, via such activities as brainstorming, charrette, doodling, design improvisation, model making, or role playing.

In the 21st century workplace working towards innovation, one of the most vital components is collaboration. Thus, it is important to provide spaces that enable key activities, such as brainstorming, charrette, doodling, design improvisation, and model making, in order to interact, share ideas, and exchange feedback. The concept of Interaction-Collaboration spaces can be best explained by stating that “The idea is to create a space that supports visualization of ideas and getting ideas out, and then equally supports getting rid of those ideas and moving onto another idea very quickly.”[7] There have to be spaces that allow you to materialize your ideas in the lowest, quickest way possible, and then also allows you to throw them away when it’s time to throw them away.

Interaction-Collaboration spaces include three types of meeting spaces. Formal meeting spaces are spaces for meetings that are typically enclosed and equipped with appropriate low and/or high- tech tools for documenting, displaying, and sharing of ideas. Informal meeting spaces are the spaces for informal meetings with low and/or high- tech tools. Impromptu meeting spaces are the spaces that are typically created in the hallways, corners, or other paths of traffic to increase chances of serendipitous or impromptu meetings with or without tools for documenting, displaying, and sharing of ideas. Both formal and informal collaboration areas are equally important in the work environment, and must be accommodated. The key is to not only provide spaces for all types of exchanges, but also to balance the mix of these types of spaces inside and outside the workspace whether they are lunchrooms, break rooms, and outdoor courtyards with seating.[8]

Formal, Informal, and Impromptu Meeting Spaces

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## 2. Recharge Spaces

### Social Spaces or Spaces with Features for Socialization

Social spaces are spaces for social networking or camaraderie- and collegiality-building, and include such spaces as cafes /cafeterias, break rooms, lounges, and hallway impromptu meeting spaces.

Socializing activities between employees are advantageous to a healthy work environment, and it has increasingly been shown that play and laughter can create a sense of involvement, evoke the release of creativity, and raise morale.[3] Creating spaces where employees can break out and mingle as well as build camaraderie and social network is important to maintaining a sense of community in a workplace and strengthening organizational culture. These spaces can serve as a hub for stimulating engagement between coworkers and can encourage information exchange and interaction. A study with a call center showed that such socialization activities served as a crucial function of social connectivity, increasing cohesion by 18%, decreasing stress levels by 6%, and reducing employee turnover from 40% to 12%.[4] A correlation was also observed between increase of a salesperson's interactions with co-workers on other teams and increase in his/her sales, showing a 10% increase in interactions resulting in a 10% increase in sales.[5]

Technology and other knowledge-intensive companies pursuing innovation have been experiencing a strong relationship between interactions, performance, and innovation. It is evident that the most creative ideas do not come when individuals sit in front of their computers in silos. Social spaces or features fostering socialization can promote serendipitous discovery, exploration, and engagement between employees, and ultimately impact their performance outcomes. This impact can be traced in a combination of organizational metrics such as total sales or number of new products introduced in the market to analyze and align the workplace performance to the organizational innovation performance and bottom line, for which CAPTIW was specifically developed. Recent evidence shows a positive relationship between the investments in social spaces and increase in sales or new-product introduced in the market.[6]

Social Spaces

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## 3. Technology

### Low-Tech and High-Tech Collaborative Tools

Technological support means being equipped with technology for knowledge access, exchange, and creation. In the contemporary knowledge workplace, technological support is one of the most essential components to the successful knowledge workplace that enables knowledge transfer and management.

The most innovation comes from workplaces where a wide range of low tech and high tech tools are found and utilized. To encourage an easy flow of ideas from conception to execution, spaces need to supply manual tools for easy display of ideas and communication within a group, such as writing surfaces, whiteboards, flip charts, and pin ups. And high tech or electronic tools are also used for fast group sharing, creation of ideas, and effective decision making. These high tech or electronic tools include information technology and electronic hardware devices such as computers, internet, social media, software, visualization tools and knowledge displays. Furthermore, other technologies, that control how employees get information and job tasks, are important to carrying out job tasks, including information portals, business rules to automate decisions, document or content management systems, business process management and monitoring systems, and collaboration tools.

Low-Tech and High-Tech Collaboration Tools

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## 4. Choice of Workspaces

### Focus, Collaboration, and Socialization Spaces

Choice of work spaces means providing work spaces necessary to support critical work modes in knowledge workplace.

Knowledge worker performance is intangible, non-quantitative in its nature. Knowledge work requires a certain level of autonomy of workers. There are two types of knowledge that are critical to knowledge creation: tacit knowledge and explicit knowledge. Explicit knowledge can

be clearly expressed and formally written down in such forms as manuals and guidelines, while tacit knowledge is individual expertise and experience that cannot be easily expressed or transferred to others.[9] Knowledge transfer between tacit and explicit knowledge among the employees is critical in a knowledge organization to continuously grow their intangible asset, which is knowledge creation. As knowledge transfer and management became an important issue to the organizational knowledge creation, there have been growing efforts from the workplace design community to support activities of knowledge creation through, providing appropriate types of spaces necessary to knowledge workers.

In order to support creative work conducive to innovation, workspaces must provide choice for work spaces to support various work modes necessary to generating critical ideas. To effectively support knowledge transfer between tacit and explicit knowledge, knowledge workspaces need to address four dimensions critical to knowledge management and creation. These four dimensions comprise socialization, externalization, combination, and internalization. When we translate these dimensions to work modes, these become four work modes of knowledge creation, including socialization, collaboration, learning, and focus modes. When we apply these work modes to the workspaces, we can support the four work modes through three types of spaces: focus space, collaboration space, and socialization space.

Focus space is for individual tasks requiring concentration without interruption from others. Examples may include individual workstations, private offices, or small enclosed rooms to conduct individual tasks. Collaboration space is for group tasks to achieve a common goal between the members. Examples may include formal and informal meeting rooms, conference rooms, or small shared spaces for collaborative activities between workstations. Socialization space is for social networks and interaction-building camaraderie and collegiality. Examples may include hallway impromptu meeting spaces, lounge areas, and cafeterias.

Focus, Collaboration, and Socialization Spaces

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## 5. RECHARGE SPACES

### Play, Solitude, Fitness, and Outdoor Spaces

Recharge spaces means separate spaces, or work spaces or workstations with features integrated for a short mental break to recharge, restore, or retreat.



Contemporary workers are frequently cognitively overloaded, receiving thousands times more information every second than the conscious brain can process. This causes a constant mental fatigue and blocks that adversely affect their productivity which can be reduced by half. According to a study, employees who took a break every 90 minutes reported a 30 percent higher level of focus than those who took no breaks or just one during the day. They also reported a nearly 50 percent greater capacity to think creatively, and a 46 percent higher level of health and well-being. Another study carried out in a bank showed boosted employee morale, increased income and reduced overhead by holding a 30 minute game of charades weekly to help employees to recharge and take a break from their everyday tasks.[10]

Recharge spaces can be used for either individual activities such contemplating, napping or personal lunging, or camaraderie-building group activities such as physical games, mini-sports or simply socializing activities. Recharge spaces include four types of spaces. Play spaces are the spaces or features that are built for playing intentional physical or virtual activities or games, such as individual work spaces with mini basketball game equipment along the wall. Examples of activities and games may include dart board, mini basketball, Ping-Pong, billiards, karaoke, foosball, air hockey, and computer/ video games. Solitude spaces are spaces for personal lounging, break, or meditation. Fitness spaces are separate spaces or spaces with equipment placed at workstations for fitness. Examples of workstation equipment may include desk stationary bicycles, desk steppers, exercise ball chairs, and tread-desks. Social spaces are spaces for social networking or interactions in such spaces as cafe /cafeteria, break rooms, or lounges (which was discussed separately due to its importance). Additionally, outdoor spaces are another great venue for recharge spaces. Numerous studies show workers' experiences with attention restoration, stress reduction, enhanced cognitive focus and stamina, and improved social capacity when nature is present. New data suggest financial benefits of connection to the nature in the workplace as well due to improved productivity and health through better focus and concentration capability as well as better mental capability to cope with mental fatigue and stress.[11]

Play, Solitude, Fitness, Socialization, and Outdoor Spaces

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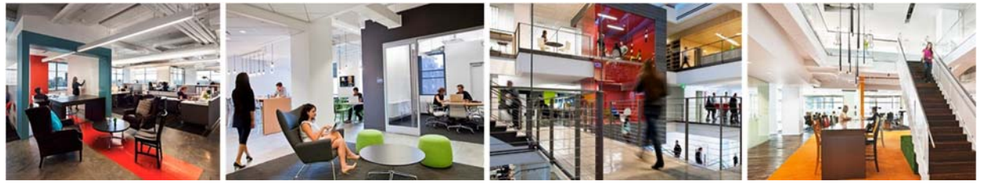
## 6. LAYOUT FOR FLOW AND CONNECTIVITY

STRENGTH

### Visual Connectivity & Non-Hierarchical Spaces

Space and Furniture Layout affects the way employees travel through the workplace which can in turn affect the social interactions between employees and the ways that they communicate.[12] A study on a media organization showed that by locating all of their businesses into one shared workplace, interaction and cross-fertilization of ideas across different teams led to greater results due to the close proximity and openness of team- and individual workspaces while also removing hierarchical locations and structures.[13] It is apparent that spatial grouping of workstations influences the communication and collaboration of workers, and ,thus, their performance and outcomes.

Successful knowledge workspaces provide visual access to other people whether enclosed or not. Visual access to co-workers and core network personnel increases chances of communications and interactions in the workplace, which is the foundation of collaboration and innovation. Examples of planning to increase visual access may include areas using glass partitions or lower partitions instead of solid partitions or higher partitions than 5 feet in the work areas; vertical openness between floors using stairs & atriums; and intersecting circulation paths. Non-hierarchical spatial planning is also important to successful knowledge workplaces. This type of planning employs space planning strategies that blur the traditional power structure at work through different space allocation or layout from the traditional planning.
There is a growing body of evidence that organizations with non-hierarchical or flatter structures outperform in general those with more traditional hierarchies when pursuing innovation.[14] Non-hierarchical structures facilitate more transparency which builds up trust in the workplace. Such a climate fosters employee autonomy and freedom in decision-making, which provides a sense of empowerment to employees. Non-hierarchical structures also contribute to increased communications and interactions with core network personnel since important senior management and executives are more accessible. This enhances easy connectivity that is a basis of innovation. An example of space planning may include assigning spaces by the best use of the spaces, or types of furniture by the functions of the person instead of the hierarchy of the organizational structure.



Layout for Visual Connectivity & Non-Hierarchical Spaces

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## 7. LAYOUT FOR FLOW AND CONNECTIVITY

STRENGTH

### Core Interaction Networks and Cross-Pollination

Space and Furniture Layout refers to layouts supporting appropriate adjacencies for information and work flow. Two principles critical to the layout of knowledge workspaces are flexibility and flow & connectivity. The flexible capacity of primary workspaces supports effective information flow and work flow for conceptual ideas to easily evolve from inception to realization.

Flow and connectivity strategy focuses on supporting information flow and critical adjacencies through the space and furniture layout. Successful knowledge workplaces distribute the core interaction networks within a department, along the core circulation paths for easy access and increased exposure. They also implement core circulation paths that connect to the spaces where people frequently meet and gather informally for cross-pollination between departments and teams. Researchers have long noted the importance of spatial layout and its use for predicting social interaction and other behaviors through the means of measuring the intelligibility of the space, or through understanding the configuration of a space through observation of traffic patterns and interaction locations within the space.[15]

Workplaces that facilitate greater communication and interaction by removing barriers and implementing effective adjacency planning among the key personnel allow workers to share task-relevant information easily, promote feedback, and have camaraderie-building opportunities; this, then, leads to increased inter-personal relations, reduced conflict, increased motivation.[16] These interactions across organizational units make the space more spatially intelligible and can be achieved by locating people who are hubs of interaction networks closer to circulation paths and accessible locations which would evoke interaction and knowledge transfer. Minimizing distance between individuals calls for better communication and innovation due to transfer of ideas.

Layout for Core Network Interaction and Cross-Pollination

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# COMPARATIVE ASSESSMENT OF PRE & POST OCCUPANCY

**Between the new ASID HQ and the previous ASID workplace**

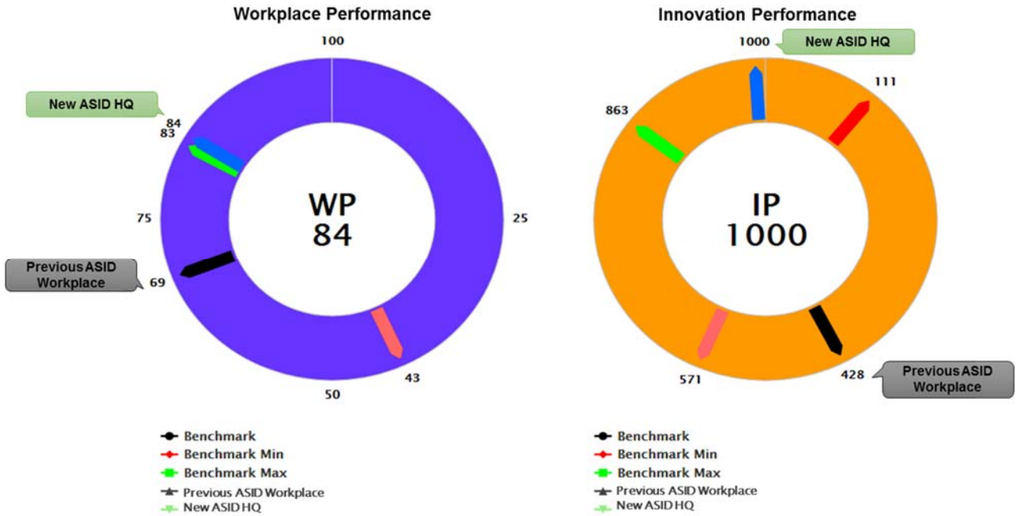




## 1. PERFORMANCE COMPARISON OVERVIEW

### 1.1. Workplace Performance And Innovation Performance

The total score of your Workplace Performance in the new ASID HQ is 84 (accurately 83.85), while the score in the previous ASID location is 43 (accurately 43.11). The score of Workplace Performance in the new HQ is 40.75 higher than the Workplace Performance of the previous location and 14.81 higher than the benchmark (69.05). The total score of your Innovation Performance from the new HQ is 1,000, while the score from the previous ASID Workplace is 571.43. The score of Innovation Performance in the new ASID HQ is 428.57 higher than the Innovation Performance from the previous location and 571.83 higher than the benchmark (428.17). The new ASID HQ exhibits superb performance in both Workplace Performance and Innovation Performance, compared to the previous workplace, indicating the optimized workplace environment that supports organizational culture, work process, and people.




Performance Comparison between the Previous ASID Workplace and the Current ASID HQ

### 1.2. PERFORMANCE OF SEVEN KPIS

The Space Type Performance in the new ASID HQ scored 21 (accurately 20.63), while the previous ASID Workplace performance in Space Type scored only 7.5. The score of the Space Type Performance in the new ASID HQ is 13.13 higher than the one of the previous location and 3.05 higher than the benchmark (17.58). The Space Type Performance in the new ASID HQ exhibits a vast improvement from the previous workplace and showcases the top quality workplace.

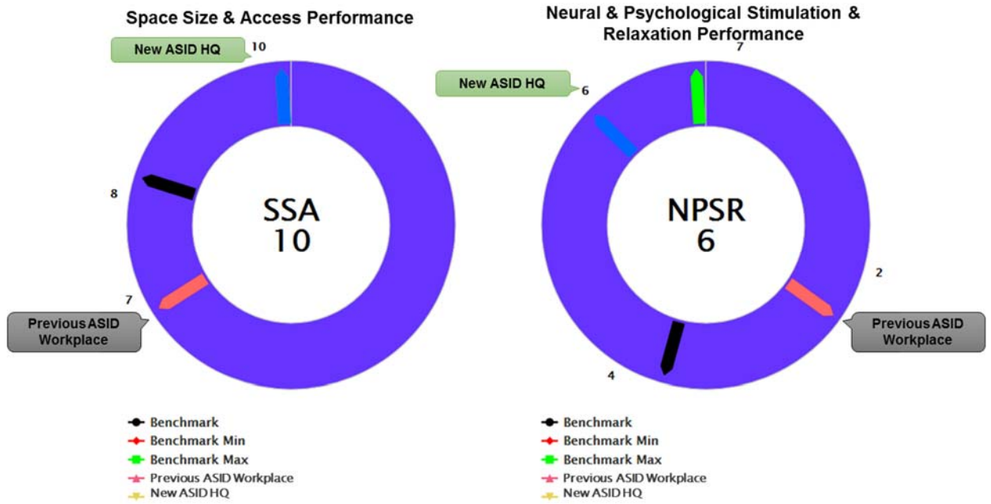
The Space Layout Performance in the new ASID HQ scored 10 (accurately 9.72), while the previous ASID Workplace performance in Space Layout scored only 5 (4.53). The score of the Space Layout Performance in the new ASID HQ is 5.19 higher than the one of the previous location and 1.99 higher than the benchmark (7.73). The Space Type Performance in the new ASID HQ exhibits a vast improvement from the previous workplace and showcases the top quality workplace.

Performance Comparison in Space Type and Space Layout

The Space Size and Access Performance in the new ASID HQ scored 10 (accurately 10.2), while the previous ASID Workplace performance in Space Size and Access scored only 6.8. The score of the Space Type Performance in the new ASID HQ is 3.4 higher than the one of the previous location and 1.97 higher than the benchmark (8.23). The Space Type Performance in the new ASID HQ exhibits a vast improvement from the previous workplace and showcases the top quality workplace.

The Neural & Psychological Stimulation and Relaxation Performance in the new ASID HQ scored 6 (accurately 5.94), while the previous ASID Workplace performance in Neural & Psychological Stimulation and Relaxation scored only 2 (accurately 2.37). The score of the Neural & Psychological Stimulation and Relaxation Performance in the new ASID HQ is 3.57 higher than the one of the previous location and 2.25 higher than the benchmark (3.69). The Space Type Performance in the new ASID HQ exhibits a vast improvement from the previous workplace and showcases the top quality workplace.

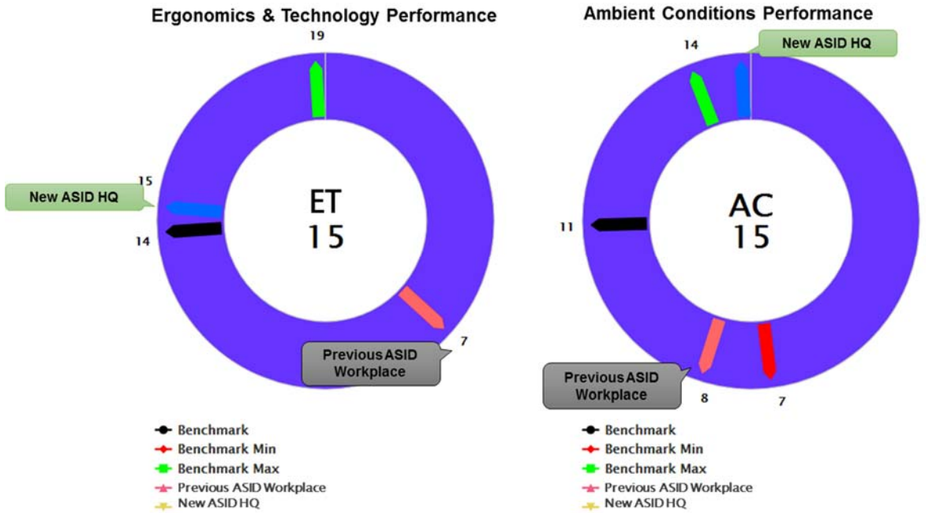





Performance Comparison in Space Size & Access and Neural & Psychological Stimulation & Relaxation

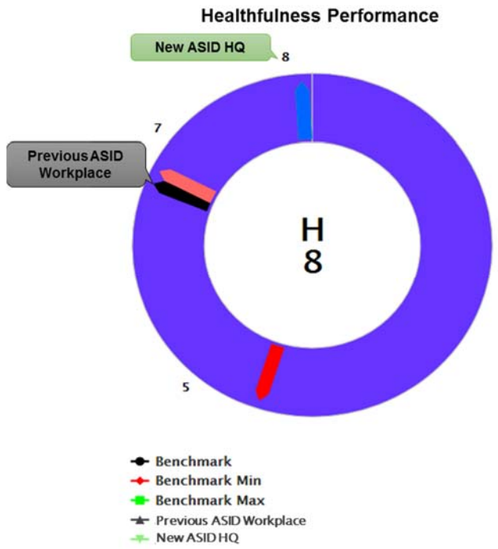
The Ergonomics and Technology Performance in the new ASID HQ scored 15 (accurately 14.63), while the previous ASID Workplace performance in Ergonomics and Technology scored only 7.04. The score of the Ergonomics and Technology Performance in the new ASID HQ is 7.59 higher than the one of the previous location and 0.48 higher than the benchmark (14.15). The Space Type Performance in the new ASID HQ exhibits a vast improvement from the previous workplace and showcases the top quality workplace.

The Ambient Conditions Performance in the new ASID HQ scored 15 (accurately 14.64), while the previous ASID Workplace performance in Ambient Conditions scored only 8 (accurately 8.12). The score of the Ambient Conditions on Performance in the new ASID HQ is 6.52 higher than the one of the previous location and 3.61 higher than the benchmark (11.03). The Ambient Conditions Performance in the new ASID HQ exhibits a vast improvement from the previous workplace and showcases the top quality workplace.




Performance Comparison in Ergonomics & Technology and Ambient Conditions

The Healthfulness Performance in the new ASID HQ scored 8 (accurately 8.1), while the previous ASID Workplace performance in Healthfulness scored 6.75. The score of the Space Type Performance in the new ASID HQ is 1.35 higher than the one of the previous location and 1.46 higher than the benchmark (6.64). The Healthfulness Performance in the new ASID HQ exhibits a vast improvement from the previous workplace and showcases the top quality workplace.




Performance Comparison in Healthfulness

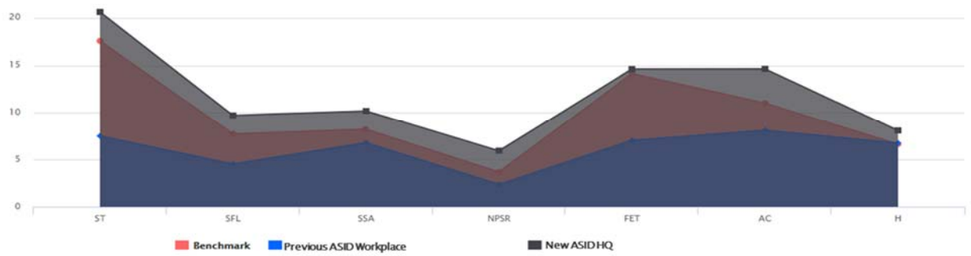


# 2. Workplace Performance & Innovation Performance

## 2.1. WORKPLACE PERFORMANCE COMPARISON

In comparison to the previous workplace, all seven KPIs of your new HQ workplace exhibited significantly higher scores than the previous workplace and also above the benchmark. Among them, the highest KPI score calculated as a ratio to the previous workplace is from ST: Space Type. This indicates the most significantly improvement between the two places is from the Space Type Performance. The ratio of the Space Type Performance of your current HQ workplace is 93.35% higher than the one of the previous workplace. The lowest KPI score calculated as a ratio to the benchmark is from H: Healthfulness. The ratio of the ET performance of your current HQ workplace is 18.18% higher than the previous workplace.
Below presents the comparison of the seven KPIs of Workplace Performance between your current HQ workplace and the previous workplace.

| | Seven Key Performance Indicators of the Workplace | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|
| | ST: Space Type | SL: Space Layout | SSA: Space Size & Access | NPSR: Neural & Psychological Stimulation & Relaxation | ET: Ergonomics & Technology | AC: Ambient Conditions | H: Healthfulness | |
| ASID HQ | 20.63 | 9.72 | 10.20 | 5.94 | 14.63 | 14.64 | 8.10 | 83.85 |
| Previous Workplace | 7.5 | 4.53 | 6.8 | 2.37 | 7.04 | 8.12 | 6.75 | 43.11 |
| Ratio of Improvement | 93.35% | 72.84% | 40.00% | 85.92% | 70.05% | 57.29% | 18.18% | 64.19% |
| Benchmark | 17.58 | 7.73 | 8.23 | 3.69 | 14.15 | 11.03 | 6.64 | 69.05 |




Performance Comparison in Seven KPIs

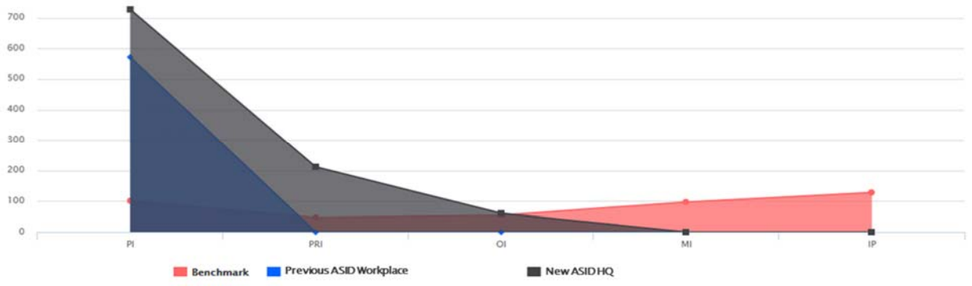
## 2.2. INNOVATION PERFORMANCE COMPARISON

In comparison to the benchmark, PI: Product Innovation Performance (727.27) in the current HQ workplace scored substantially higher than the previous workplace (571.43). This is 24%

higher than the benchmark. PRI: Process Innovation (212.12) was also substantially higher than 46.70 of the benchmark, which was 127.83% higher than the previous workplace. PRI: Process Innovation (212.12) and OI: Organizational Innovation (54.62) are newly identified innovation performance in the current HQ workplace. Thus, while a comparison is not available between the current HQ workplace and the previous workplace, this may indicate that additional innovation performance that can be attributable to the high performance of the seven KPIs in the new HQ.

Below presents the comparison of the five KPIs of Innovation Performance between the new HQ workplace and the previous workplace.

| Innovation Performance | | | | | | |
|---|---|---|---|---|---|---|
| | PI: Product Innovation | PRI: Process Innovation | OI: Organizational Innovation | MI: Marketing Innovation | IP: Intellectual Property | Total |
| ASID HQ | 727.27 | 212.12 | 60.61 | N/A | N/A | 1000 |
| Previous Workplace | 571.43 | 0.00 | 0.00 | N/A | N/A | 571.43 |
| Ratio of Improvement | 24.00% | 200% | 200% | -- | -- | 55.00% |




Performance Comparison in Innovation



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