ANNEX A: Design Industry Manpower Plan

Opportunities in the Growing Design Sector

1. The DesignSingapore Council (Dsg) defines the Design Sector as constituting active firms that provide design consultancy in the following industries:
   (a) **Place-making**: Architecture Services, Landscape Design and Landscape Architecture, and Interior Design;
   (b) **Object-making**: Industrial and Product Design, and Fashion Design;
   (c) **Image-making**: Advertising, and Art and Graphic Design; and

2. From studies commissioned by the Dsg:
   (a) **85 percent** of design services firms reported three-year plans to grow partnerships and offer more diversified and integrated services, targeting high growth areas in technology, such as “analytics” and “digital transformation”;
   (b) Between 2014 to 2016, non-design companies with in-house design teams increased revenue spend on design activities from **1.3 percent to 1.7 percent**;
   (c) The number of designers at senior management level in these non-design companies rose from **12 percent to 32 percent**;
   (d) Between 2017 to 2022, the number of design professionals in Singapore is expected to **grow by more than 12,000**; and
   (e) **By 2022, for every design job in design services firms, there will be 1.8 design jobs in non-design companies.** Technology companies, financial services and business consulting firms are key drivers of the demand for design talent.

3. This drive for demand of design is echoed globally. McKinsey’s *Business Value of Design* report published in 2018 identified design as a key driver of business success:
   (a) There is a strong correlation between McKinsey’s Design Index (MDI) scores and superior business performance;

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1 *Sources: National Design Industry & Manpower Study 2017 and Value of Design Study 2016, both commissioned by the Dsg.*
(b) The most design-centric companies disproportionately outperform their peers;
(c) Firms that embraced design holistically and scored in the top quartile of MDI generated 32 percent more revenue and 56 percent more shareholder returns than competitors over a five-year period; and
(d) Good design matters to all businesses, regardless of industry and offering.

New Skills Demand on Design Workforce

4. In focus group discussions conducted by the Dsg with industry members to formulate the Skills Framework for Design, five trends reflecting changes in the functions of design were surfaced:
(a) Design as Catalyst: As more companies integrate designers into their teams, designers will need to possess deep knowledge not only in their specific craft but also in business and technology;
(b) Cultural and Organisational Transformation: Designers play an important role in facilitating the development of human-centred problem-solving approaches to shape organisational culture based on empathy, communication and collaboration;
(c) Systems Approach to Complexities: As businesses continue to recognise the value of design in navigating complex systems, designers must better understand cultural nuances, relationships and the human psyche to deliver thoughtful and meaningful experiences;
(d) Design for New Technological Platforms: Designers are expected to be agile and versatile enough to design for omni-channels and must exercise empathy to create seamless solutions in a fast-evolving technological landscape; and
(e) Sustainability and Ethics: Designers must be proficient in regulations governing data privacy, intellectual property, sustainability, diversity, inclusivity and accessibility.
5. To understand the different roles that designers play, the Dsg has developed a model outlining the four archetypes of designers and the skills that each possesses:

Diagram 1: Archetypes of Designers

6. Between 2017 and 2022, it is estimated that the archetypes required by the economy will be in the ratio of 4:2:1 (Design Specialist: Design Integrator: Design Multiplier), with the fastest growth in demand in the “Design Integrator” role.² As businesses increasingly turn to design as a means of transforming their organisations, Singapore will need more “Design Integrators” and “Design Multipliers”.

² Based on findings from National Design Industry and Manpower Study 2017
Preparing and Nurturing the Design-Empowered Workforce of the Future

7. The Design 2025 Masterplan envisions that by 2025, Singapore will be a thriving innovation-driven economy and a loveable city by design. Driving this transformation will be a workforce equipped with design as a national skillset.

8. Spearheaded by the Dsg, in strong partnership with stakeholders such as government agencies, education institutions, training providers, industry associations, companies and employers, the Design Industry Manpower Plan is a concerted effort to prepare and nurture the design-empowered workforce of the future.

9. The talent strategies under the Design Industry Manpower Plan aim to embed design skillsets across Singapore society by enhancing the national design education system across General Education (GE), Pre-Employment Training (PET) and Continuing Education and Training (CET). Its twinned goals are to nurture:

(a) Design talents with transdisciplinary skillsets: These designers have specialist design domains as well as skillsets in non-design disciplines such as business and technology. They can integrate these skills to create new products and services that meet industry needs; and

(b) A workforce with design sensibilities: This design-empowered workforce can apply design-led approaches to solve complex issues, drive business transformation and co-create better living environments.
10. The key features of the Design Industry Manpower Plan are:

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| #3 Increase opportunities for continuing professional development | Support continuing education and training in design for professionals and educators | * Deepen strategic, management, analytical and communication skills through enhanced CET programmes and incentives for design professionals to take on the role of a design integrator. These may include:  
  - Support growth of design integrators through scholarships, and  
  - SkillsFuture Study Awards (SFSA)  
  - Support design educators to maintain industry relevance through skills competency matrix  
  - Enable real-world design learning platforms beyond formal curriculum such as “School of X” |
| #2 Develop industry links and future-ready talent | Strengthen industry links through a Design Education Advisory Committee | * Strengthen education and industry links  
  - Align programmes with industry needs through Skills Framework for Design  
  - Promote interdisciplinary platforms within the curriculum to cultivate design-led creative thinking such as the pilot of “Let’s Design Together” |
| #1 Increase exposure to design mindset | Impart design-led creative thinking to students across more disciplines | * Expose the young early to design-led creative learning and doing  
  - Enhance capabilities of educators through exposure and co-creation |

**Conclusion**

11. The Design Industry Manpower Plan seeks to build a resilient design-empowered workforce by embedding design as a national skillset through strategies cutting across the learning continuum. To realise this goal, key stakeholders from the Institutes of Higher Learning (IHLs), public service agencies, and industry must come together as partners. Professionals – in both design and non-design sectors – can also take ownership of their personal development by embracing lifelong learning and skills mastery. Only then can Singaporeans develop empathy, resilience, adaptability and creativity – critical qualities needed to build an innovative yet loveable city in the future economy.