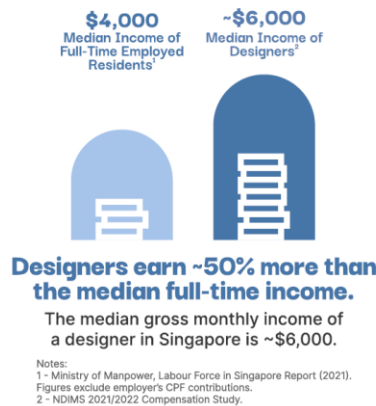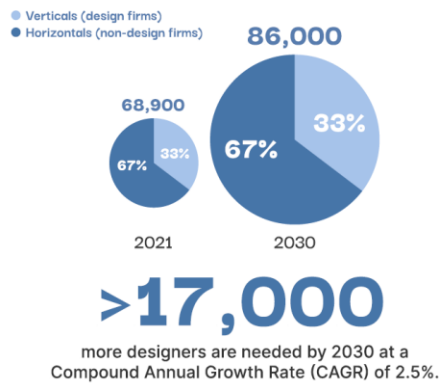# Annex A: NDIMS Media Fact Sheet
National Design Industry and Manpower Study (NDIMS) 2021/2022 Report

The National Design Industry and Manpower Study (NDIMS) was first launched in 2017 by the DesignSingapore Council (Dsg) to understand and establish manpower and skills gaps that exist in the industry. In its third edition, the study looks to explore future opportunities for the design workforce and assess the current design freelancing landscape.

With over 670 participants and panellists, the NDIMS is a comprehensive study that employs a range of methods and sources to derive insights. This includes a survey with enterprises, interviews with industry leaders from both design and non-design sectors, quantitative data from various government reports and publications, and secondary insights from local and international reports spanning the topics of design, manpower, and national strategies.
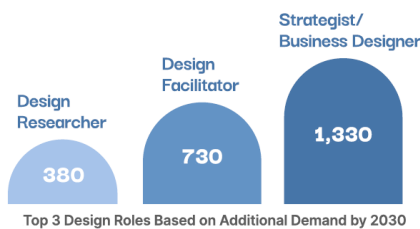
1. Key findings from State of Design Manpower

Verticals (design firms)
Horizontals (non-design firms)

68,900 — 2021 (67% / 33%)
86,000 — 2030 (67% / 33%)

>17,000 more designers are needed by 2030 at a Compound Annual Growth Rate (CAGR) of 2.5%.

$4,000 Median Income of Full-Time Employed Residents[1]
~$6,000 Median Income of Designers[2]

Designers earn ~50% more than the median full-time income.
The median gross monthly income of a designer in Singapore is ~$6,000.

Notes:
1 - Ministry of Manpower, Labour Force in Singapore Report (2021). Figures exclude employer's CPF contributions.
2 – NDIMS 2021/2022 Compensation Study.

TOP SKILLS IN DEMAND
- Analytical Thinking
- Business Strategy
- Creativity
- Design Communication

EMERGING DEMAND IN DESIGN JOBS

Design Researcher — 380
Design Facilitator — 730
Strategist/Business Designer — 1,330

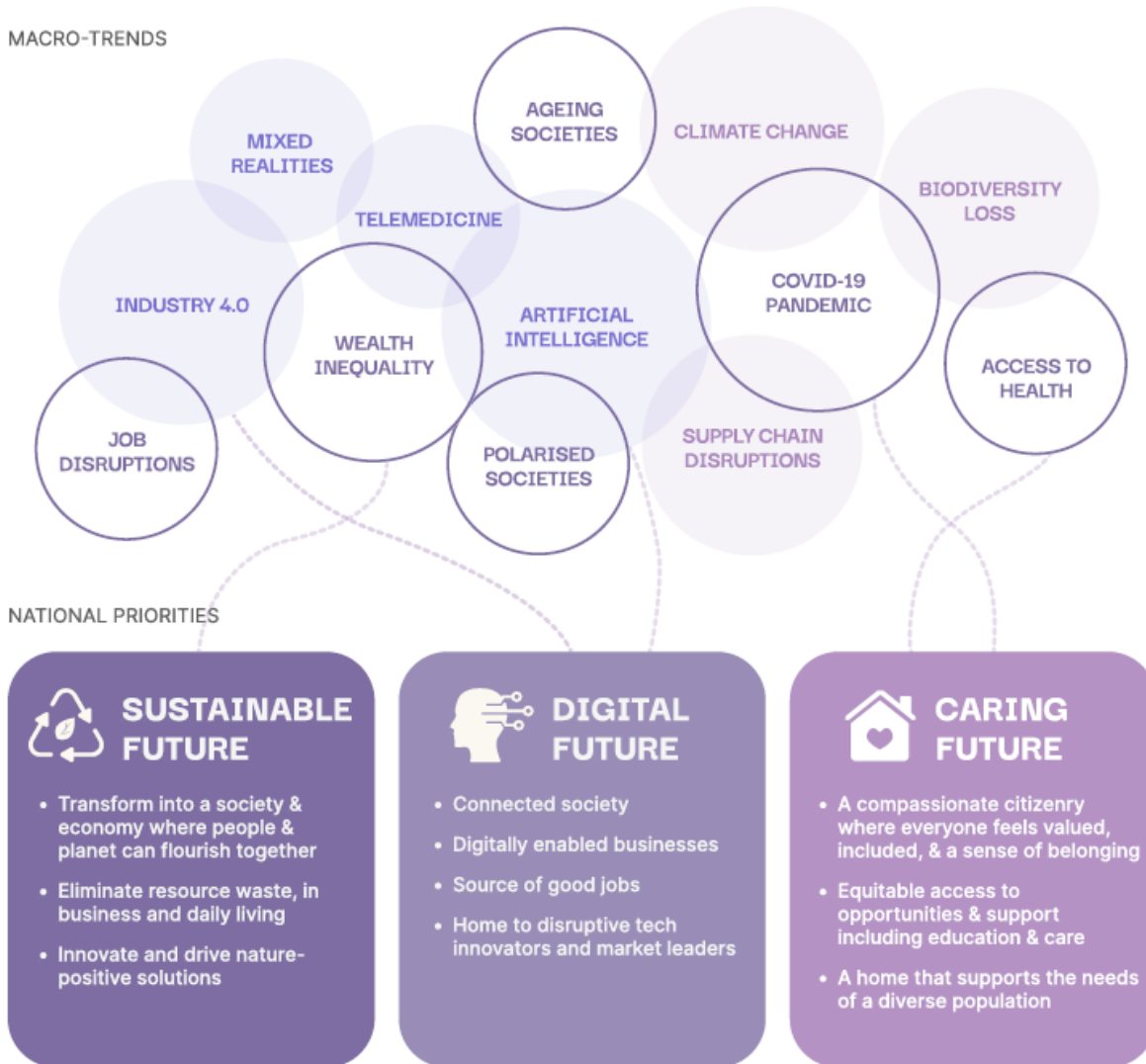Top 3 Design Roles Based on Additional Demand by 2030

Designers in business and innovation functions are in the highest demand.
Transdisciplinary capabilities will continue to be key hiring requirements.

KEY TRENDS

Verticals 1 : Horizontals 2.1

Non-design companies will continue to drive demand for designers.
The ratio of designers in Verticals to Horizontals will be 1:2 by 2030.

Sustainable, Digital, and Care economies are key opportunity areas
where designers need to acquire new skill sets for the present and future.

2. Emerging Trends and Growth Opportunities for Design

MACRO-TRENDS

AGEING SOCIETIES

CLIMATE CHANGE

MIXED REALITIES

BIODIVERSITY LOSS

TELEMEDICINE

INDUSTRY 4.0

COVID-19 PANDEMIC

WEALTH INEQUALITY

ARTIFICIAL INTELLIGENCE

ACCESS TO HEALTH

JOB DISRUPTIONS

POLARISED SOCIETIES

SUPPLY CHAIN DISRUPTIONS

NATIONAL PRIORITIES

SUSTAINABLE FUTURE
- Transform into a society & economy where people & planet can flourish together
- Eliminate resource waste, in business and daily living
- Innovate and drive nature-positive solutions

DIGITAL FUTURE
- Connected society
- Digitally enabled businesses
- Source of good jobs
- Home to disruptive tech innovators and market leaders

CARING FUTURE
- A compassionate citizenry where everyone feels valued, included, & a sense of belonging
- Equitable access to opportunities & support including education & care
- A home that supports the needs of a diverse population

Sustainable Future

1 Design, Measure & Manage Sustainable Built Environments

Curb environmental emissions from the built environment by redesigning construction techniques, such as developing sustainable materials, carbon-capture solutions, and energy efficient urban systems.

2 Lead & Enable Circular Economy Transformation

Apply design thinking, leadership, and innovation skills to catalyse change from linear to circular business models.

3 Incubate & Grow Nascent Green Industries

Support the growth of climate-tech businesses by using design to make nascent products & services more viable and desirable. For example, visual communication and development of prototypes.

Digital Future

1 Ascend the Digital Leadership Ranks

Influence and shape how digital products are produced, delivered, and enhanced. Be recognised as a business equal, by bridging business outcomes and user-centric experiences.

2 Deepen Design & Technological Collaboration

Develop greater technological literacy to create boundary-pushing digital design experiences with tech teams. Understand the parameters of a range of technologies and their applications, so as to employ them strategically and effectively.

3 Humanise & Drive Adoption of Emerging Technologies

Advocate for the human experience in the deep technology innovation space. Lead user-centric research and identify appropriate go-to-market strategies for emerging technologies.

Caring Future

1 Revitalise & Transform High-Touch Sectors

Address the pressing challenges of the high-touch sectors, such as healthcare, education, and social services. Challenges are multidisciplinary in nature, and can range from internal, to organisational change, to front-facing design innovations.

2 Build an Enduring & Endearing City

Foster belonging and attachment to the city and local communities. Use design elements in the built environment to bring communities together, interact meaningfully, and rejuvenate civic life.

3 Co-design for Social Cohesion, Connectedness & Community

Rally communities together through participatory design processes to design a shared vision of the future. In micro-communities (e.g. neighbourhoods), or the nation at large. (e.g. civic participation, national conversations)

3. Hiring Outlook in the Design Sector

51.2%
of survey respondents plan to actively add design headcount in 2023.

$4,000
Median Income of Full-Time Employed Residents in 2021[1]

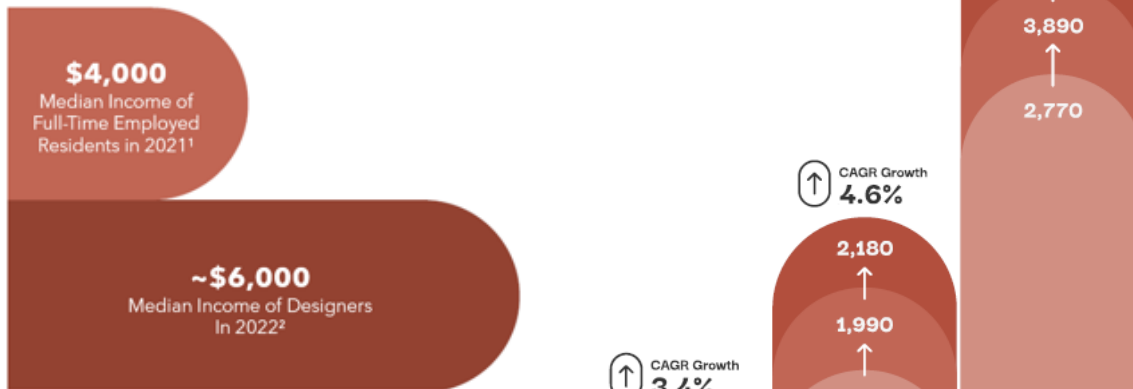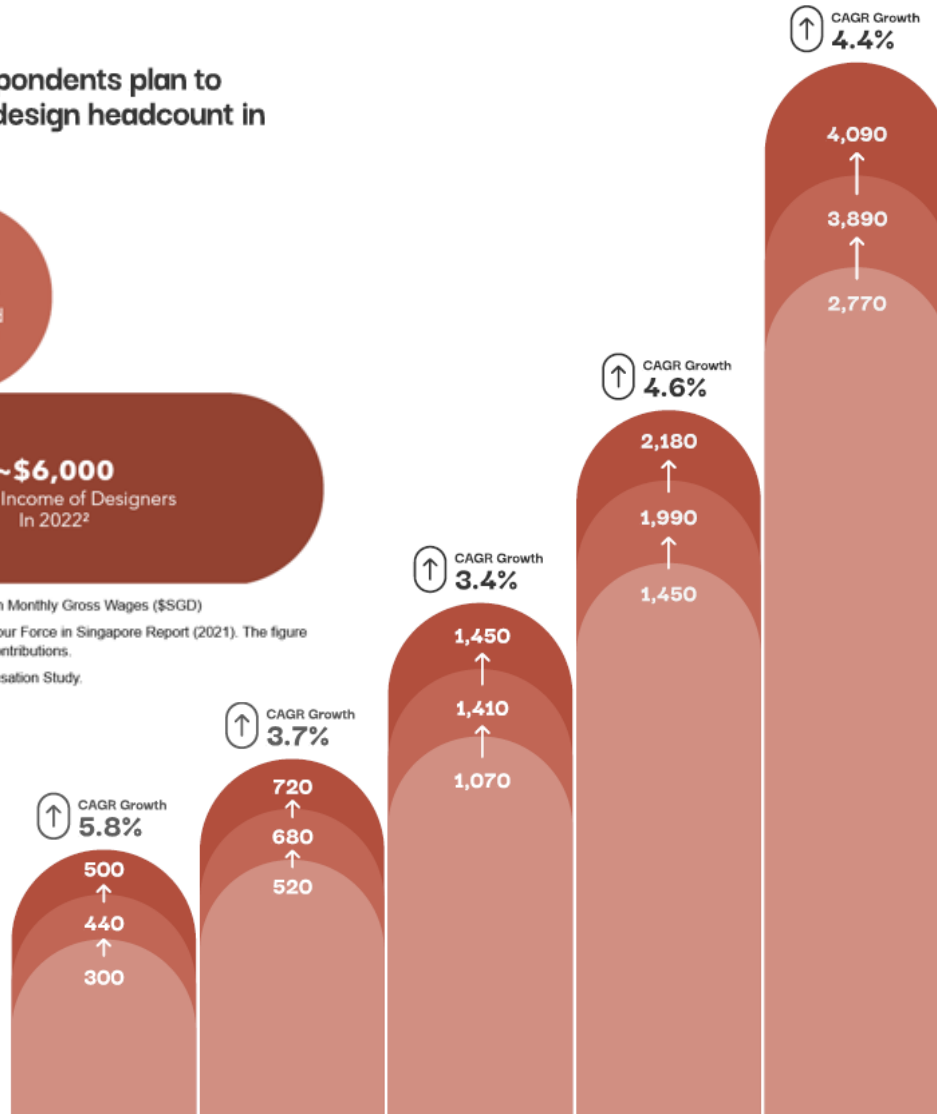**~$6,000**
Median Income of Designers In 2022[2]

Fig 5: Comparison of Median Monthly Gross Wages ($SGD)

[1] Ministry of Manpower, Labour Force in Singapore Report (2021). The figure excludes employer's CPF contributions.

[2] NDIMS 2021/2022 Compensation Study.

CAGR Growth 4.4%
4,090
↑
3,890
↑
2,770

CAGR Growth 4.6%
2,180
↑
1,990
↑
1,450

CAGR Growth 3.4%
1,450
↑
1,410
↑
1,070

CAGR Growth 3.7%
720
↑
680
↑
520

CAGR Growth 5.8%
500
↑
440
↑
300

Fig 6: Top 5 Design Roles with Highest CAGR

- YEAR 2030
- YEAR 2025
- YEAR 2021

Design Coach / Design Accelerator
- Implements design thinking in the organisation.
- Leads design thinking induction across the organisation, uncovers opportunities to improve workforce productivity and efficiency.

Principal Experience Designer
- Drives projects for designing engaging user experiences.
- Spearheads research to uncover new user experience solutions and is accountable for all user experience design decisions in the organisation.

Design Researcher
- Studies key industry trends and competitors' user experience strategies in order to support the development of user journeys, wireframes and prototypes.
- Strong in analysis and data literacy to synthesise insights.

Design Facilitator
- Assists in imparting design thinking concepts to internal stakeholders in the organisation.
- Implements change management processes and assists stakeholders in executing design thinking within teams and departments.

Strategist / Business Designer
- Executes strategic planning activities that enhances the organisation's brands, products and/or services.
- Possesses an analytical and data-driven mindset who can imagine various innovative scenarios.

For more information, please read our report here: bit.ly/NDIMS2023

Annex B: Profile Stories

Profile Details	About Their Careers

• **Name:** Andrew Chen
• **Designation:** Product Designer, Meta
• **Education:**
   ○ Diploma in Digital Media Design (Animation), Nanyang Polytechnic (NYP)
   ○ Specialist Diploma in User Experience Design and Management, Nanyang Polytechnic
	Andrew worked at a digital media design studio, Aleph Labs, as a UX/UI Designer while completing NYP's Specialist Diploma in User Experience Design and Management. The new skills and design knowledge from the specialist diploma equipped him with business-related skills, which complemented his pre-employment education in digital media.
	
	With his expanded design skillsets and work experience, Andrew successfully progressed to a Product Designer at Grab.
	
	He most recently moved to London to work at the digital frontiers of the metaverse as a product designer at Meta.

• **Name:** Cheong Yian Ling
• **Designation:** Head of Design, SEA, Thoughtworks
• **Education:**
   ○ Bachelor of Arts, Industrial and Product Design, National University of Singapore
   ○ Master of Design, Interaction Design, Carnegie Mellon University
	Yian Ling is the Head of Design for Southeast Asia at a global technology consultancy firm, Thoughtworks, working on shaping products, services, and experiences for clients. She started her career in Industrial Design before pivoting to User/Customer Experience Design.
	
	Yian Ling constantly pushed herself to upgrade as she broke new ground in the field of user/customer experience design. She was also the first Dsg scholar to pursue postgraduate studies in Interaction Design, an emerging design area in the experience-making space.