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# Human Resource Development

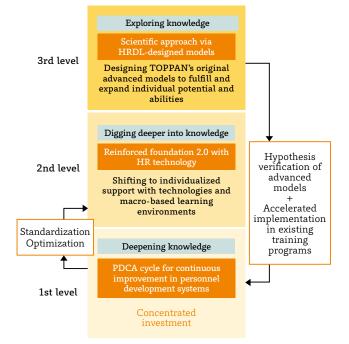
# Basic Approach

The Human Resource Development Center of the Personnel & Labor Relations Division collaborates with persons in charge of human asset development at each business division to develop educational programs and build an integrated system of human resource development programs. These programs are organized systematically around TOPPAN UNIVERSITY, a platform that strives to foster leaders and support the skill and career enhancement of employees through basic and special programs, leader development programs, and personal empowerment programs. The center deploys the Human Resource Development Laboratory (HRDL) as an R&D base to study, research, and verify ideal programs for personnel innovation that inspire self-transformation and expand individual potential and abilities to create new value.

Annual employee questionnaires on personnel development measures have been organized at TOPPAN Holdings since fiscal 2012. Employees' appetite for learning, evaluations of the measures currently practiced, and opinions on workplace support for learning have been collected and shared with all of the officers as important data to be used in the design of new development programs. Of 11,216 employee respondents in fiscal 2024 (RR 88.1%), 9,242 (82.4%) evaluated personnel measures as favorable.

TOPPAN's three-level approach to personnel development is shown in the figure on the right. At the first level, we seek continuous improvement in training programs through a PDCA cycle. At the second, the training effectiveness and efficiency gained at the first level are maximized with human resource (HR) technology and various other technologies. At the third, we study, research, and verify ideal methods to stimulate human asset innovation.

Three-level Approach to Human Asset Development



Modeling the logic of artists to apply the creative process to business



Level 3: Developed the Art Innovation Framework  $^{TM}\!,$  a thinking method that systematizes the logic of artists to spur the generation of new ideas in business.



Level 2: In addition to bringing programs online through web distribution, VR goggles are utilized as a teaching method.



Level 1: Programs are implemented in line with TOPPAN UNIVERSITY, with continuous improvements made through the PDCA cycle.

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#### Systematic Human Asset Development Programs

Respect for human beings A core management principle since TOPPAN's foundation in 1900 Human asset Mindful of how deeply we depend on our employees, we will foster human assets who will one day go on to create new knowledge and skills. We will nurture development policy working environments and a corporate culture ideal for the sustainable growth of individuals and TOPPAN as an organization that contributes to society. 1) Individual growth engenders our growth, and individual competitiveness engenders our competitiveness. Approach to human asset 2) Fostering self-directed individuals; We will foster self-directed human assets who take the initiative in value creation. development 3) Creating excellent collective knowledge: We will nurture distinguished personnel who generate excellent collective knowledge that enhances decision-making Ideal human assets and organization A human asset who accurately understands and proactively practices the principles of our Purpose & Values, and an organization that makes decisions (Human assets to be fostered within the Group) and acts based on excellent collective knowledge. 2 Enhanced sensitivity 3 High aspirations Three key competencies 1 Communication skills TOPPAN UNIVERSITY Leader Development Shaping the Future—advanced Executive management programs LDP-S LDP-M Purpose, Structure & Training Policy ing the Future **LEADER** (senior) (middle) Cross-industrial Purpose of establishment President Maro's innovation program exchange programs Programs to nurture future business creators Global leader-Mindful of how deeply we depend on our employees, we will foster Social innovation programs External training GLOBAL ship program human assets who will one day go on to create new knowledge and skills. Comprehensive MBA essentials program programs workshop advanced

Basic sales training

Rank-based programs

Selective programs

Skills programs

Next-generation executive training program A course

Next-generation executive training program B course

Sales

Planning

Technology /

Research

Manufacturing

Production

We will nurture working environments and a corporate culture ideal for the sustainable growth of individuals hand in hand with our growth as an organization that contributes to society. Note: A virtual platform for engaging in personnel development and training

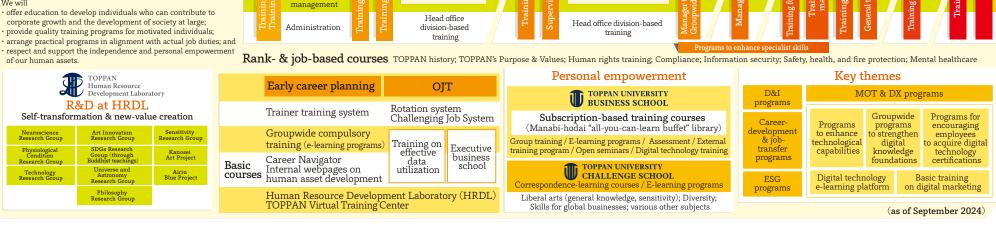
programs fashioned in an accessible, university-style. Not a formal university

#### Overall structure

Composed of Groupwide basic education, rank- & job-based training courses, selective leader development programs, and a personal empowerment platform supported by the infrastructure of the Kawaguchi and Yugawara Training centers, TOPPAN Virtual Training Center, and Career Navigator (online portal providing comprehensive information on personnel development)

#### Training policy

We will



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\*LDP: Leader development program

Programs to empower

new sales personnel

Rank-based programs

Selective programs

Skills programs

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Global leadership

programs-abroad

Trainee | Various overseas

system | study programs

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# **Activities**

# Research and Development at HRDL

In April 2017 TOPPAN launched the Human Resource Development Laboratory (HRDL), an R&D base to study, research, verify, and implement ideal programs for personnel innovation. The fields of interest range from neuroscience and brain research to physiological condition analyses and business support technologies.

The HRDL applies interdisciplinary expert knowledge from outside of the Group to design original personnel development models that promote self-transformation and inspire individuals to fulfill and expand their potential and abilities. The research outputs are expected to spur TOPPAN's brand new value creation.

The HRDL strives to produce original models by applying its advanced personnel-development approaches to the Group's current training systems. The lab embraces sensitivity and non-verbal dimensions by transcending the verbalized dimensions in which conventional training programs are organized.

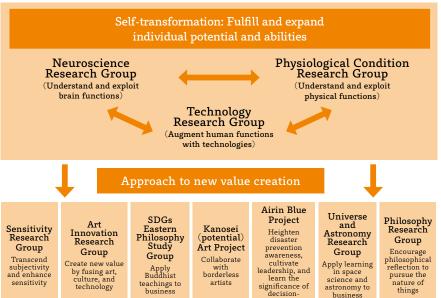
We believe that human assets can innovate and create new value when they are better able to recognize nonquantifiable cognitive attributes such as sensitivity and non-verbal understanding. We are forging ahead with

medium- and long-term research and development projects in cooperation with outside experts.

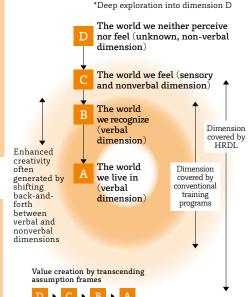


Human Resource Development Laboratory

Systematic R&D at HRDL in 2025 (for innovative human asset development)



#### Dimensions Covered by HRDL



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#### R&D Projects at HRDL

Program	Launched in	Concept & Outline	
Neuroscience Research Group	2017	·A program to apply neuroscience to human asset development, established with DAncing Einstein, Co., Ltd. Aims to develop talent necessary for corporate growth and a better society.	
Physiological Condition Research	2017	A program to provide accurate knowledge and skills for sound mental and physical health, designed with Dr. Hideyuki Negoro of Harvard Medical School and Sorbonne University School of Medicine.	
Group		<ul> <li>Gains in mental and physical health promote the health management of the Group by improving individual performance and enhancing efficiency.</li> </ul>	
Technology Research Group	2020	•Nurturing human assets who create new value by broadening human functions through technology and expanding individual potential and abilities.	
Sensitivity Research Group	2018	•A program to unleash creativity and link it with innovation by enhancing sensitivity, designed with external research institutions specialized in the human senses. Researches spatial designs and develops programs to merge human sensitivity into business.	
Art Innovation Research Group	2018	Creating new value by fusing art, culture, and technology through a course established together with Kyoto University. Seeks to formulate an innovative value-creation scheme to enhance creativity by transcending subjectivity through artists' logic.	
SDGs Eastern Philosophy Study Group	2019	•A program designed with the Yoi-Otera ("good temples") Research Institute for human asset development applying Buddhist principles to business. Incorporates Buddhist teachings into training to engender innovative ways of thinking about work, the value of a corporation, and the concept of being oneself.	
Kanosei Art Project	2018	•A project fostering next-generation leaders as part of development of a business model linking social benefit (greater independence of persons with disabilities) with economic benefit (Group revenues) using technologies that add value to the works of borderless artists.	
Airin Blue Project	2019	•A project to remind people of the value of life by maintaining flowers at the final resting place of Airi Sato, a child who perished in the tsunami caused by the Tohoku Earthquake. The flowers signify the need for disaster preparedness and action when a disaster strikes.	
Universe and Astronomy Research Group	2021	<ul> <li>Applying insights from space science and astronomy to business for new value creation. Encourages employees to think on a macrocosmic scale, taking in the big picture and gaining deeper insights into future aspirations.</li> </ul>	
Philosophy Research Group	2022	•Exploring ways to leverage philosophical viewpoints in training programs, encourage human assets to apply philosophical insights to business, and apply philosophical principles for new services, solutions, and businesses.	

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#### **R&D** Activities at HRDL

Program	Launched in	Results
		Designed a forefront brain science program that seeks to improve personal performance and communication skills by shedding new light on the mechanisms of human learning, behavior, emotions, and thinking.
Neuroscience Research Group	2017	*Forefront brain science program: 462 participants (total for 19 terms), Forefront brain science program—advanced: 170 participants (total for 7 terms), Mindfulness & stress management program: 307 participants (total for 13 terms)
_		·Incorporated neuroscience knowledge into training sessions for new hires and personnel during their first three years of employment a total of 10,787 views (as of July 2025).
		· Studied clues on the actions to take in response to new challenges; summarized the findings in a video and art installation for employees.
		•Produced Around-the-clock Tips for Better Performance and Breath Control & Tips for Optimal Sleep, Exercise, and Diet, a series of self-care videos devised to help every Group employee look after their own mental and physical health; a total of 24,294 views across the two types of content (as of January 2025).
Physiological Condition Research Group	2017	•Developed a smartphone app that helps Group employees manage their own mental and physical health; used the app in rank-based training sessions for a total of 8,815 participants, from new hires to managers (as of June 2025); patented functions of this app as a health management system and health management method (Japan Patent No. 2019-213535).
		•Developed the 3D Stress Check & Support, a comprehensive system for businesses that automatically prescribes tailored support for individuals based on the results of mental-health risk screenings.
		• Developed a business-plan creation support system that compares and proposes business models using a combination of AI and financial expertise, in 2021; incorporated the system into in-house programs for personnel training on new business creation in the same year.
Technology Research Group	2020	•Provided all employees with content to learn about generative AI and training for creating prompts. For new employees, arranged a workshop for using in-house generative AI to devise solutions for social issues.
		•In 2025, the initiative to provide continuous learning opportunities to all Group employees using technology was praised highly and recognized with the "10th HR Technology Award" for Excellence in the Learning Division.
Sensitivity	2018	•Held interactive employee workshops, in which participants worked with non-verbal dimensions such as smell, color, physical expression, sensitivity engineering, perception, and hearing.
Research Group	2018	•Collaborated with the KANSEI Projects Committee, a general incorporated association specializing in research on "human sensibility" with a focus on "sound" and "scent," and received input from experts. Conducted a study group aimed at addressing sensibility in business, including program and spatial development to enhance sensibility.
		•Developed the Art Innovation Framework <sup>TM</sup> , a thinking method that systematizes the logic of artists to spur the generation of new ideas in business; made an animated video on this framework.
Art Innovation	2018	·Arranged an Art Innovation Framework program for managers focused on approaches to transcending subjectivity for the creation of new value.
Research Group		·In Kyoto, managers participated in fieldwork aimed at creating new value based on subjectivity using the Art Innovation Framework™, experiencing genuine art such as furnishings, Buddhist statues, and Ikebana firsthand.
		·Held internal seminars focused on the fusion of art, culture, and technology to create new value.
		·Produced Buddhist Teachings in Business, a video to be viewed across the Group.
SDGs Eastern Philosophy Study Group	2019	Organized online fieldwork programs to guide senior managers on virtual visits set at Zenko-ji temple in Nagano and the Koyasan sacred mountain in Wakayama, Japan. The participants learned about the meaning and significance of work and the roles required of senior management, with a thematic focus on the moral values of a corporation.
ur		·Held internal seminars hosted by experts and monks to present Buddhist principles applicable to business scenarios.
		-Continued training programs in which new and experienced employees explored ways to add value to the works of borderless artists (attended by more than 3,300 participants since 2018).
	2018	Won the Grand Mécénat Award for the project at the Japan Mécénat Awards 2022 organized by the Association for Corporate Support of the Arts of Japan in 2022.
Kanosei Art		·Selected 50 artworks to be shown at the 2024 exhibition, based on in-house votes cast by over 6,000 employees and officers in 2023.
Project		·Continued to hold borderless artwork exhibitions in Metapa™, a metaverse space.
		•The number of secondary utilization projects, where companies adopt and deploy art works, continues to grow each year, with new inquiries in addition to ongoing applications. The total cumulative return to artists has exceeded 20 million yen.
Airin Blue Project	2019	• Held an internal seminar on individual preparations to save lives; presented a lecture on the leadership required during disasters and disaster prevention activities.
		•Developed the Space Innovation Framework™, a thinking method for new value creation.
Universe and Astronomy Research Group	2021	•Worked with the Philosophy Research Group on the utilization of the Space Innovation Framework for manager training with a view to fostering thinking skills that generate balanced perspectives and actions; organized training for new division managers to reaffirm two qualities required in a leadership candidate: a broad, long-term viewpoint and the personal principles of a frontrunner.
		•Held employee seminars on space science and culture.
Philosophy Research Group	2022	•Continued to hold training sessions for supervisors to foster inner wisdom (the ability to see the nature of things) and a clear understanding of a supervisor's roles as a TOPPAN member that creates social value.
Research Group		·Held internal seminars on philosophical thinking oriented towards deeper questioning of the world in the pursuit of the essence of things.

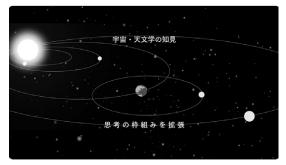




An original self-care app to nurture physiological well-being



Exhibition of Kanosei Art Project in the metaverse



Developed the Space Innovation Framework  $^{\!\mathsf{TM}}$ 

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# TOPPAN Virtual Training Center

The TOPPAN Group leverages virtual reality, the metaverse and other forefront digital technologies for human asset development.

In 2021 we launched the TOPPAN Virtual Training Center as a global education platform that seamlessly connects digital and real spaces for coming generations.

Every Group employee from across the world can visit this online hub to congregate with a diversity of people from within and outside of the Group. We seek to integrate knowledge and spur innovation by optimizing our digital training environment using advanced technology.

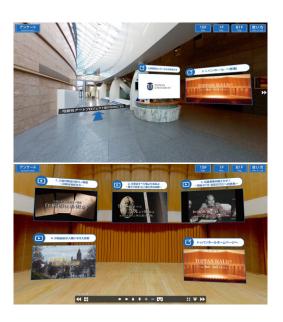
The training center operates two venues. The first is the virtual Koishikawa Head Office Building, an online space where visitors can experience virtual tours of Toppan Hall and the Printing Museum, Tokyo. The second is the Virtual

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Human Resource Development Laboratory (HRDL), an online facsimile of the real-world laboratory. Employees can visit the Virtual HRDL to check the research results from the lab's two projects and eight research groups and to learn the specialist knowledge of the HRDL researchers through in-house seminar videos and other materials. One series of videos describes the art, Buddhism, and space frameworks adopted for personnel innovation. Another prominent title is round-the-clock Tips for Better Performance, an animation video to help human assets look after their own mental and physical health. The virtual laboratory also presents artworks from the Kanosei Art Project and the research outputs of trainees harnessing the findings of the eight research groups.

On-site and virtual learning infrastructures are now available at TOPPAN. Group employees from around the world can tour our facilities remotely and catch up on the latest knowledge at any time and from any distance.



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## Training Programs with Digital Technology

With a large number of employees, there were challenges such as regional disparities in educational opportunities due to training locations being concentrated in Tokyo and an environment that was not always conducive for employees with time constraints to learn effectively.

The COVID-19 pandemic led us to convert all previous in-person training sessions to an online format. Even after the pandemic subsided, we have continued to drive educational transformation by harnessing the latest digital technologies that leverage our strengths. In addition to online training via web distribution, some fieldwork training sessions have been moved online with the use of drone footage. We also created VR content allowing employees to experience our product manufacturing processes, making remote factory tours possible. In addition to subscription-based e-learning to acquire business skills, we also conducted rank-based training in the metaverse to facilitate communication and build participant networks. With the new employee training in fiscal 2025, 91% of new employees responded that they were able to build peer networks while interacting in the metaverse space.

Our efforts to create continuous learning opportunities for all employees were rated highly, and were recognized with the 10th HR Technology Award for Excellence in the Learning Division.





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## Human Asset Development Initiatives

Fiscal 2024 Data on Human Asset Development Programs (TOPPAN Group)

Program	Outline	No. of Participants (cumulative)
Rank-based programs	A set of programs for acquiring the knowledge, skills, and mindsets employees will need in their careers, mainly for new postings.	17,522
Leader development programs	A series of selective training programs to foster leaders of tomorrow, including a program for creating new businesses and a program for developing human assets active in global business arenas.	17,761
Personal empowerment programs	A series of self-initiated programs that give Groupwide employees the choice of what they learn. Three learning styles are available.	44,596
TOPPAN Business School	Diverse courses that cover wide-ranging subjects from basic knowledge and skills in business to advanced specialist skills. Offered in online-group and e-learning settings and in a course that dispatches trainees to business schools outside of the Group.	8,197
Manabi-hodai (all-you-can- learn buffet) e-learning library	A subscription-based program with over 187 courses and no limits placed on the time or place of learning or how often the courses can be repeated.	3,208
Challenge School	Correspondence-learning courses for acquiring business knowledge and skills.	2,439
Groupwide basic education	E-learning programs to give every Group employee the opportunity to learn requisite business knowledge.	362,341
Human asset map for global business	An annual language-proficiency assessment to gauge foreign language competency at the Groupwide level and to count and rank the human assets with high aptitude for global business. The top-scorers will be fostered under an upcoming mid-to-long-term development plan as personnel expected to be indispensable for the global growth of the Group.	1,562
Selective training on global business	A program to equip employees with fundamental skills for global business such as linguistic aptitude, cross-cultural competency, and consensus building.	43
A system to deploy young employees to overseas affiliates for one year of language immersion and practical training in day-to-day business activities, primarily to enhance their linguistic aptitude and cross-cultural competency.		101*
JICA Japan Overseas Cooperation Volunteers	A trainee system to dispatch Group employees to emerging and developing countries.	17*
A program to send employees involved in international business to short-term open courses at the International Institute for Management Development (IMD; one of the world's top-ranked business schools) in Lausanne, Switzerland to acquire practical training in leadership, the tenacity required to follow through on projects to completion, and other capabilities required in global business.		19*

<sup>\*</sup>Cumulative total since fiscal 2013

#### Data on DX Human Asset Development Programs (TOPPAN Group)

Program	Outline	No. of Participar (cumulative)	nts
DX basic training	E-learning program for essential DX knowledge and skills (video: about 6 hours in 7 sessions).		8,889
Training for AWS certification	Focused on basic-level knowledge and skills for employees seeking to become AWS-certified cloud practitioners. Trainees come from digital, sales, planning, and technology departments.	Participants Certified employees	4,500 2,365
Training for acquiring Microsoft Azure certifications	Basic-level training on cloud knowledge and skills for employees seeking to obtain the Azure Fundamentals AZ900 certification. Trainees come from digital, sales, planning, and technology departments.	Participants Certified employees	1,502 454
Training for Generative AI Test certification	Helps employees become business translators who can integrate digital technologies into practices based on in-depth understanding of technologies (e.g., AI, deep learning) and applications in business.	Participants Certified employees	383 248
Training for Data Scientist certifications	Helps employees acquire digital literacy and knowledge to become qualified data scientists by acquiring knowledge and skills in data science, including data processing, machine learning, data analysis, engineering, mathematical statistics, and business.	Participants Certified employees	409 119
Udemy / Aidemy	MOOCs focused on AI utilization, data analytics, and global communication skills for department-based training and personal empowerment. Employees acquire up-to-date, high-quality knowledge and skills through the latest platforms.	Udemy participants Aidemy participants	6,330 513
Growth X marketing	A one-year, cross-departmental program for the latest knowledge and practical skills across digital marketing.	Participants	422

### $Human\ Asset\ Development\ Expenditure\ (TOPPAN\ Inc.)$

	Expenditure on Training, etc. per Employee
Fiscal 2020	53,637 yen
Fiscal 2021	56,070 yen
Fiscal 2022	64,937 yen
Fiscal 2023	76,188 yen
Fiscal 2024	72,137 yen

<sup>\*</sup>Consolidated figures for Japan (covering 65.1% of the consolidated total)

### Participants in Leader Development Programs (Cumulative total from fiscal 2011 to 2024, TOPPAN Group)

Level	Program	Total (cumulative)
Management Class	Business innovation (intermediate/advanced)	361
	Management literacy (advanced)	460
	Management literacy (intermediate)	1,567
	Total	2,388
Specialist skills	Business innovation (intermediate/advanced)	239
	Total	239
Supervisors	Business innovation (elementary)	995
	Management literacy (elementary)	1,296
	Total	2,291
General	Business innovation (basic)	3,579
employees	Total	3,579
Employees at	Global leader development	344
all levels	Total	344
	Sum total	8,841

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<sup>\*</sup>The increase in numbers since fiscal 2023 is due to changes in aggregation methods and scope.

<sup>·</sup>Average human asset development cost per employee: 28,453 yen

<sup>·</sup>Average training hours in human asset development programs per employee: 47.9 hours

<sup>\*</sup>Figures for TOPPAN Inc.

<sup>·</sup>Average human asset development cost per employee: 72,137 yen

<sup>·</sup>Average training hours in human asset development programs per employee: 120.0 hours

<sup>\*</sup>Both in fiscal 2024