44th Technical Committee Meeting ILO/Cinterfor

International Summit: Vocational Training for Sustainable Development

6 - 8 August 2019

Montevideo / Uruguay

MTSS Ministerio de Trabajo y Seguridad Social

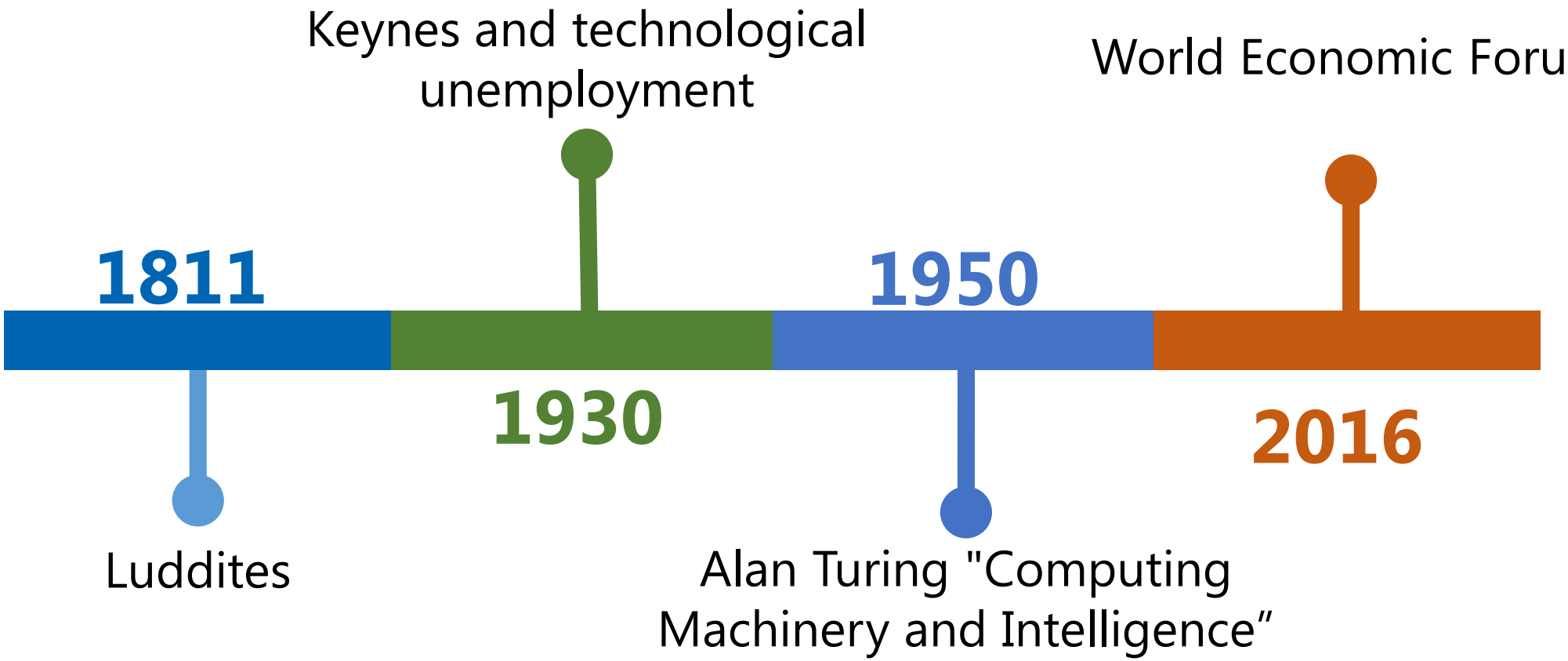
INEFOP

Oficina Internacional del Trabajo CINTERFOR

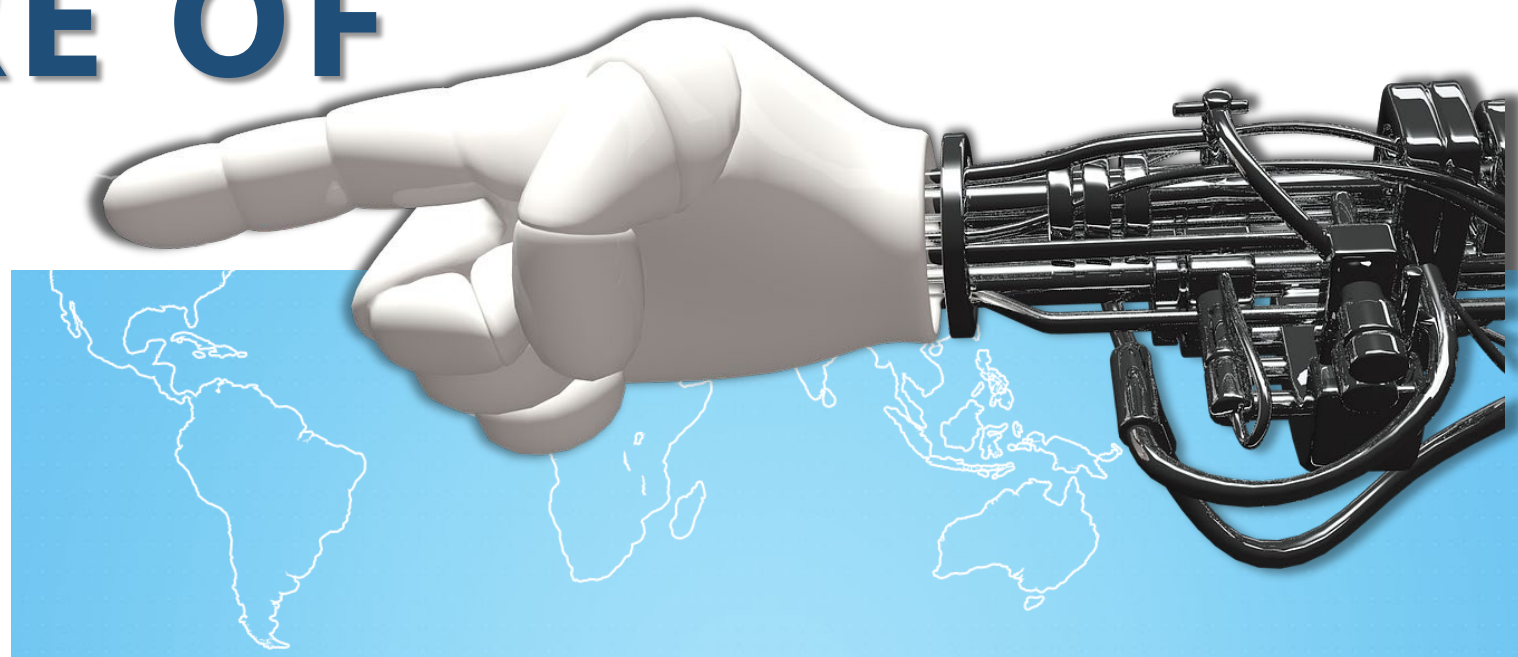
JUSTICIA SOCIAL TRABAJO DECENTE

UruguayNatural Ministerio de Turismo

THE SECULAR DEBATE



THE FUTURE OF WORK



Occupations are susceptible to automation

- **47%** in the **EUA**[1]
- **57%** in **OCED**[2]
- **69%** in **Índia**[2]
- **77%** in **China**[2]

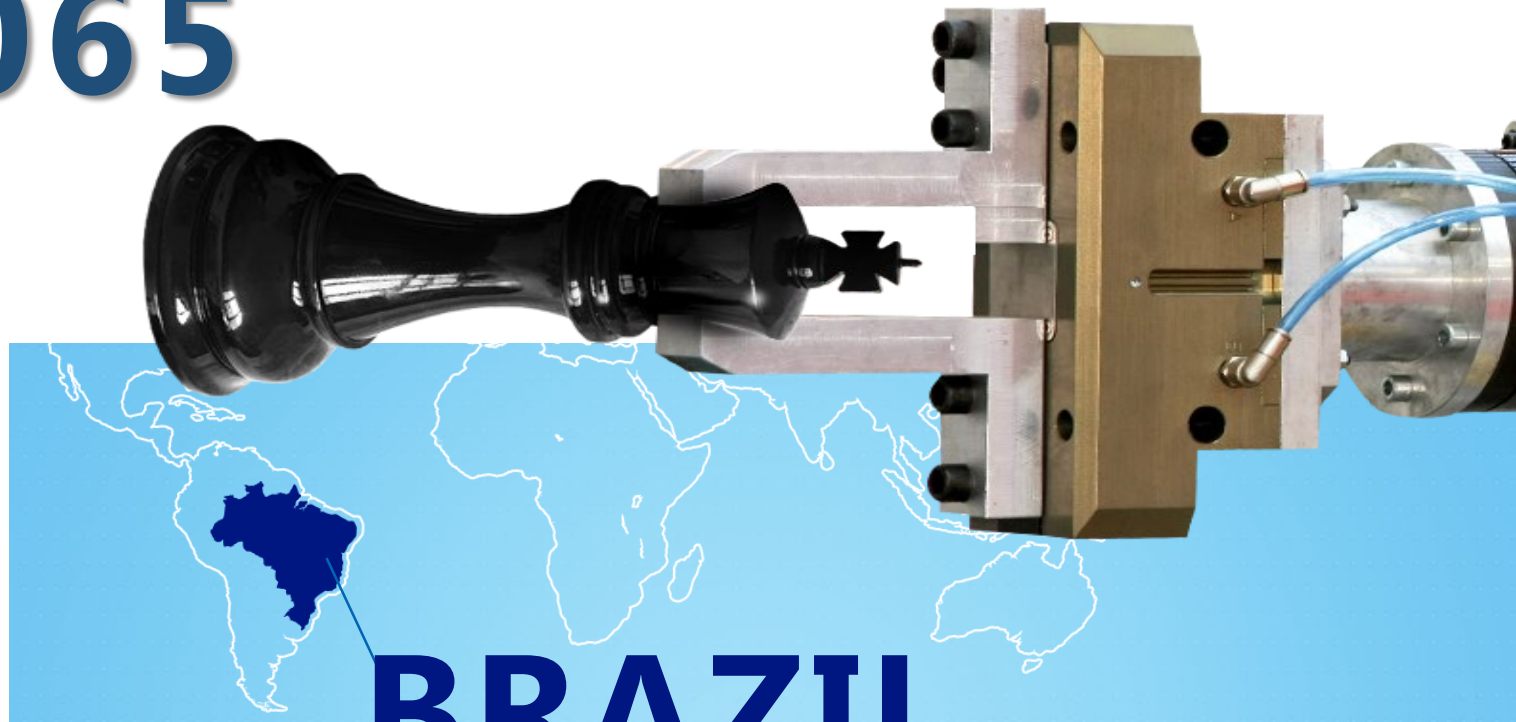
Fonte: 1-Frey e Osborne (2013); 2-World Bank

WORK IN 2065

54 COUNTRIES FOCUS

78% of global employment

MORE OF THE HALF OF WORK ACTIVITIES CAN BE AUTOMATED WITH CURRENT TECHNOLOGY AND NEXT DECADE.



BRAZIL

- **50%** of jobs have automation potential
- **69%** in the industry

Fonte: McKinsey

What does

the FUTURE of

WORK

depend one?

INNOVATION

TECHNOLOGICAL DIFFUSION

VELOCITY

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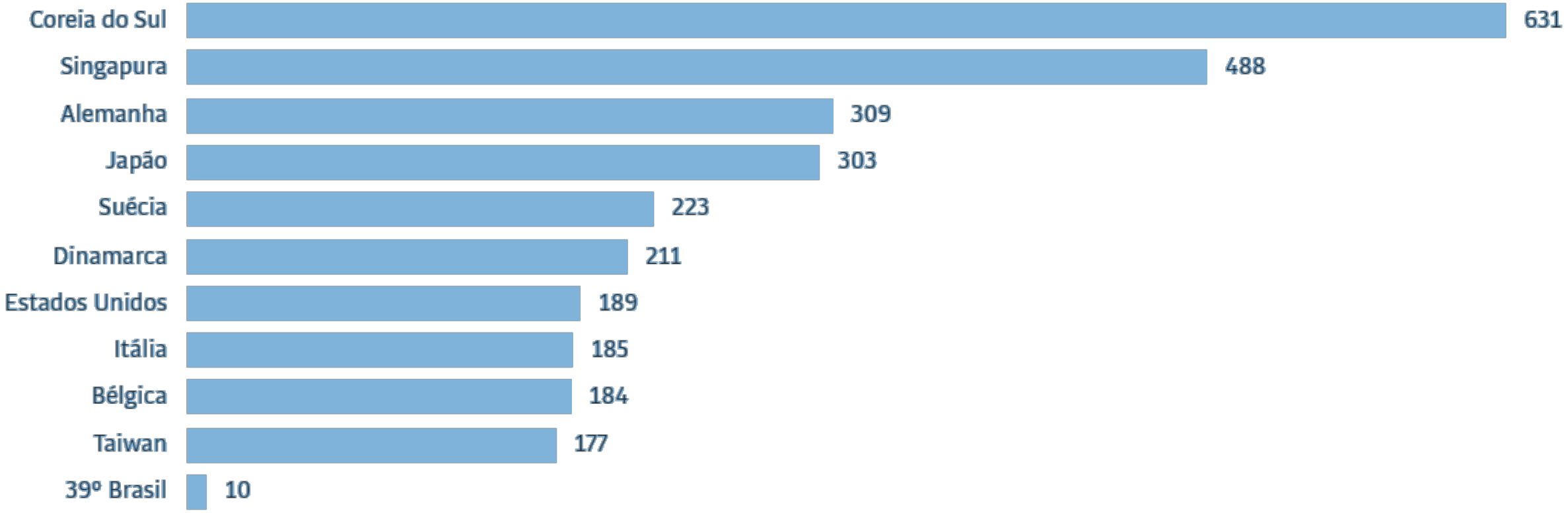
THE REALITY

Densidade de robôs no Brasil está muito abaixo da média global, de 74 deles a cada 10 mil trabalhadores



Fontes: IFR (International Federation of Robotics)

CONCERNS

- PREMATURE DEDUSTRIALIZATION IN EMERGING AND DEVELOPING COUNTRIES
- NUEVOS MODELOS DE CRECIMIENTO Y FORMACIÓN DE TRABAJADORESNOVOS MODELOS

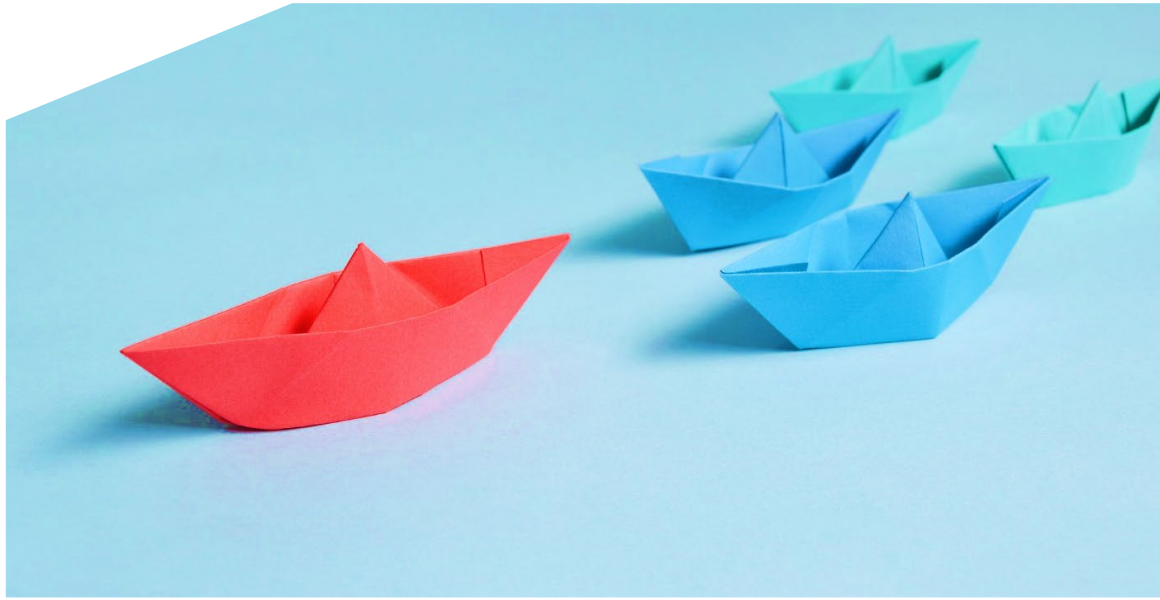
Fonte: World Bank

What do we want from the future?

INFLUENCERS AND PROTAGONISTS

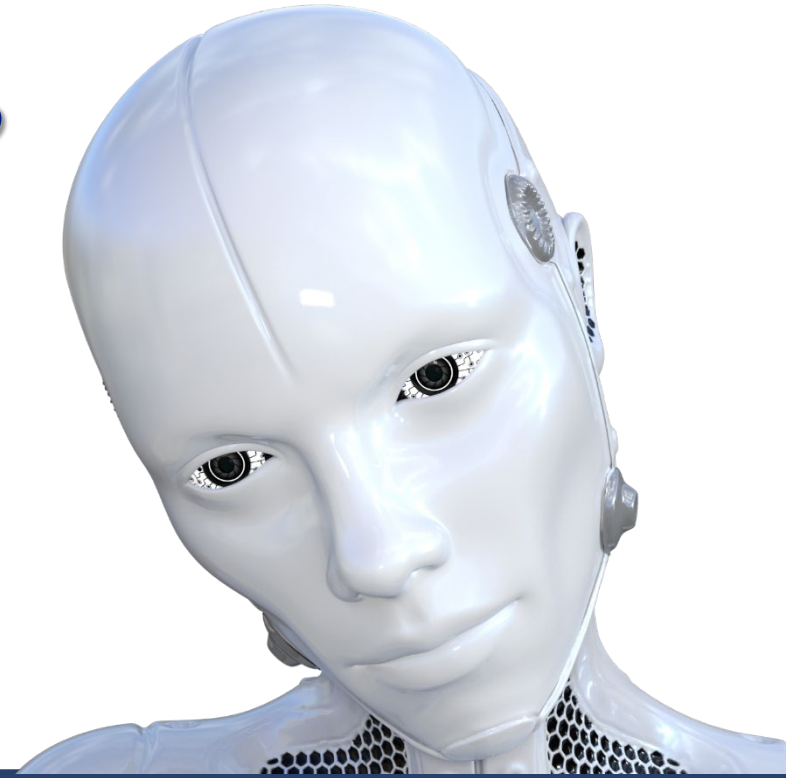
Or

RESPONSIVE REACTIVES?



HOW WILL THIS TRANSITION OCCUR?

How will we balance
today and tomorrow?



THE FUTURE OF PROFESSIONS

OCCUPATIONS

COGNITIVE BASIS,

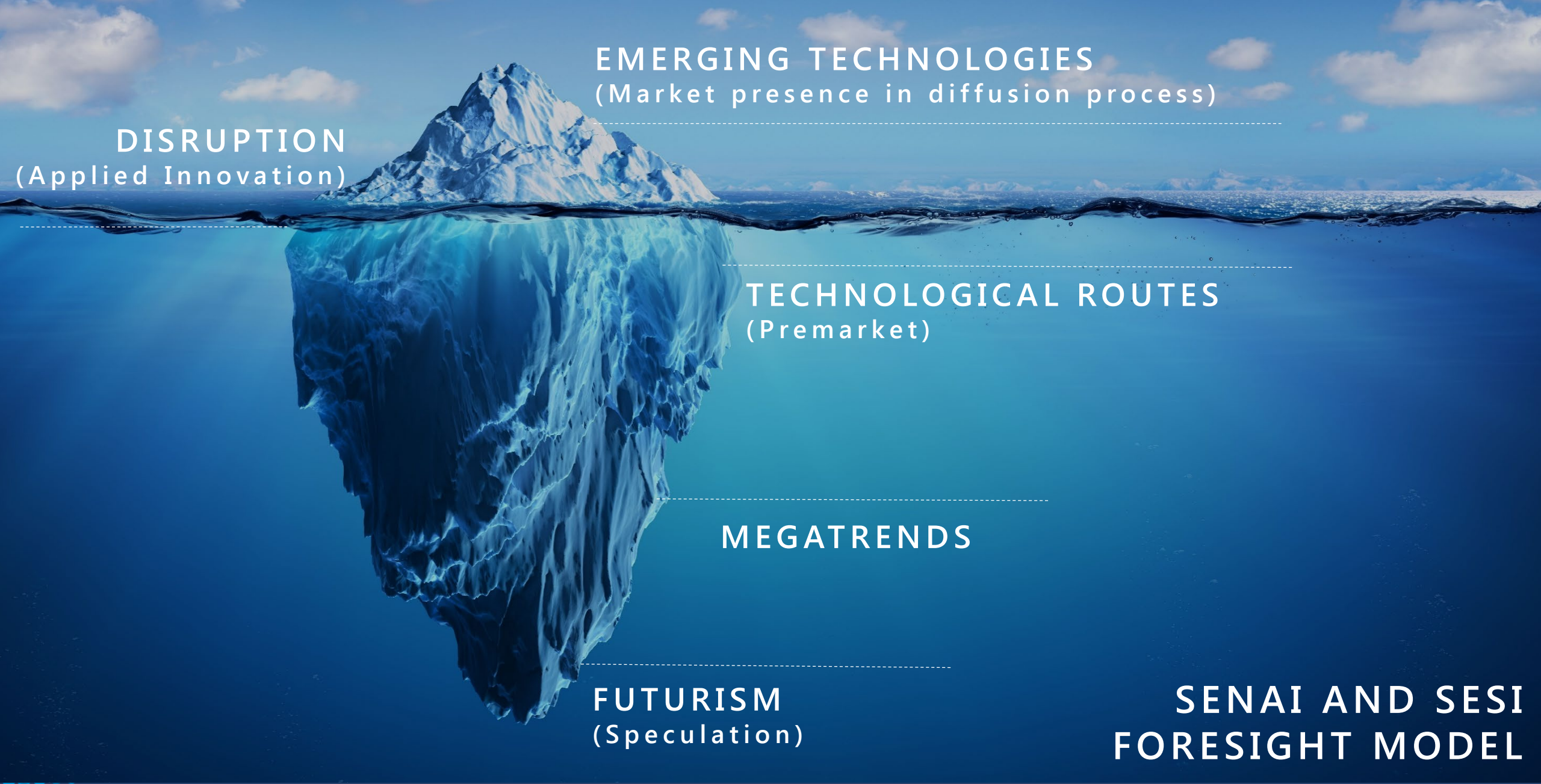
NON-ROUTINE ANALYTICS

AND INTERACTIVES

GET MORE RELEVANCE IN

THE FUTURE

HOW TO ANTICIPATE THE FUTURE OF PROFESSIONS?



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74 PROSPECTIVE STUDIES

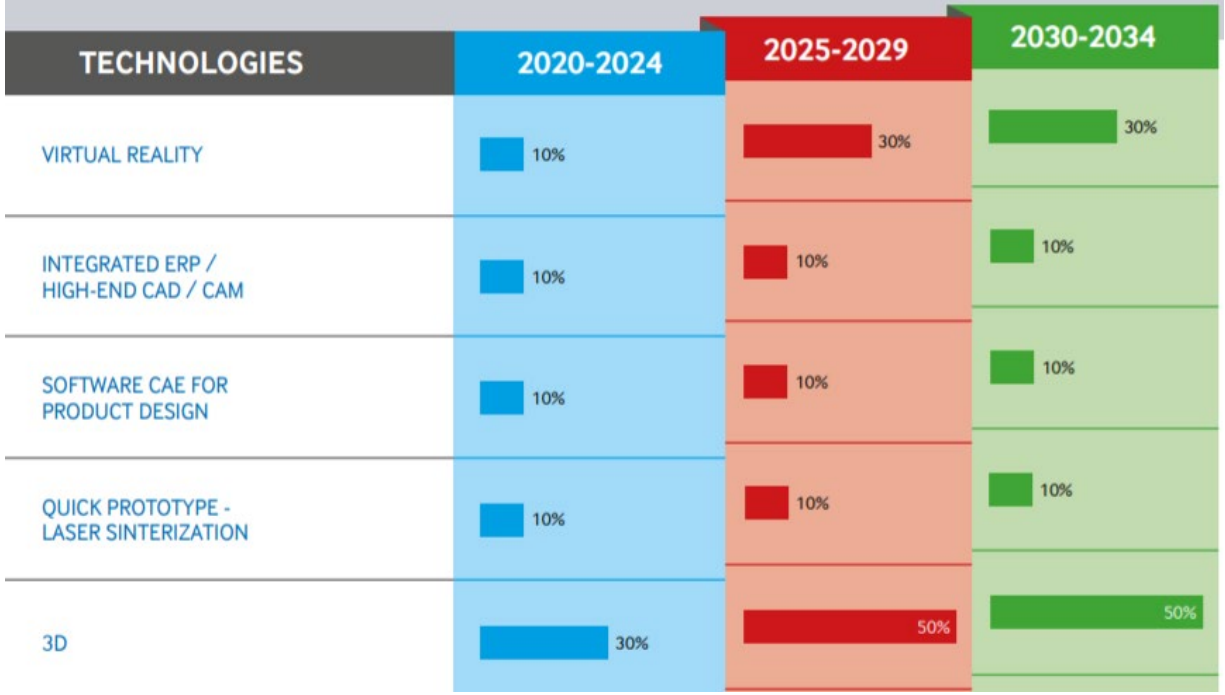
	Ano	Setores Estudados											Total Setor
Modelo SENAI de Prospecção (MSP)	2013	Automação e mecatrônica	Comunicação visual	Energias renováveis	Máquinas Ferramentas (Mecânica de Precisão)	Plásticos (polímeros)	Máquinas Ferramentas (soldagem)	Eletrotécnica	Automotivo	Metalurgia			9
	2014	Alimentos e Bebidas	Automotivo	Química	Refrigeração e climatização	Máquinas Ferramenta	TIC	Telecomunicações	Confecção do Vestuário				8
	2015	Agroindústria	Biocombustíveis	Energia - GTD	Mineração - minerais metálicos	Mineração - minerais não metálicos	Química	Gráfico					7
	2016	Alimentos e Bebidas	Couro e calçados	Construção civil - edificações	Máquinas Ferramenta	Segurança no Trabalho	TI - Software	TI - Hardware					7
	2017	Automação	Automotivo	Construção naval	Madeira e mobiliário	Petróleo e gás	Plásticos (polímeros)						6
	2018	Construção civil - edificações	Construção civil - infraestrutura	Energias renováveis - fotovoltaica	Energias renováveis - eólica	Energias renováveis - termossolar	Gráfico						6
	2019	Têxtil	Metal Mecânica (Usinagem)	Industria 4.0	Telecomunicações		Têxtil (Peru)	Confecção do vestuário (Peru)					6
											Total MSP 2013-2018		**49**
Rotas Tecnológicas (RT)	2015	Adesivos	compósitos	Eslastômeros	Biomateriais	Embalagens ativas - alimentos	Plásticos verdes	Reciclagem	Tintas	Internet das coisas	Robótica	Sistemas integrados	11
	2016	Hot Forming	Baterias estacionárias	Enzimas têxteis	Manufatura Híbrida	Lean Logistic	Steels or Alloys						6
	2017	Ergonomia	Higiene Ocupacional	Logevidade e Produtividade	Prevenção da incapacidade	Economia para SST	Fatores psicossociais						**6**
	2018	Estilo de Vida	TICs para gestão em SST										**2**
											Total RT 2015-2018		**25**
											Total de Estudos Prospectivos		**74**


PROFESIONES
DEL FUTURO
CONVERGENCIA TECNOLÓGICA: LA NUEVA EVOLUCIÓN TECNOLÓGICA
APLICACIÓN DEL MODELO SENAI Y SESI DE PROSPECCIÓN
APLICACIÓN DEL MODELO SENAI Y SESI DE PROSPECCIÓN – RESULTADOS
SENAI
PELO FUTURO DO TRABALHO
Estudos Prospectiva
UNIEPRO


FUTURE
PROFESSIONS
BRAZILIAN
METALMECHANICAL SECTOR
2020
2034


FUTURE
PROFESSIONS
BRAZILIAN
TEXTILE SECTOR
2020
2034

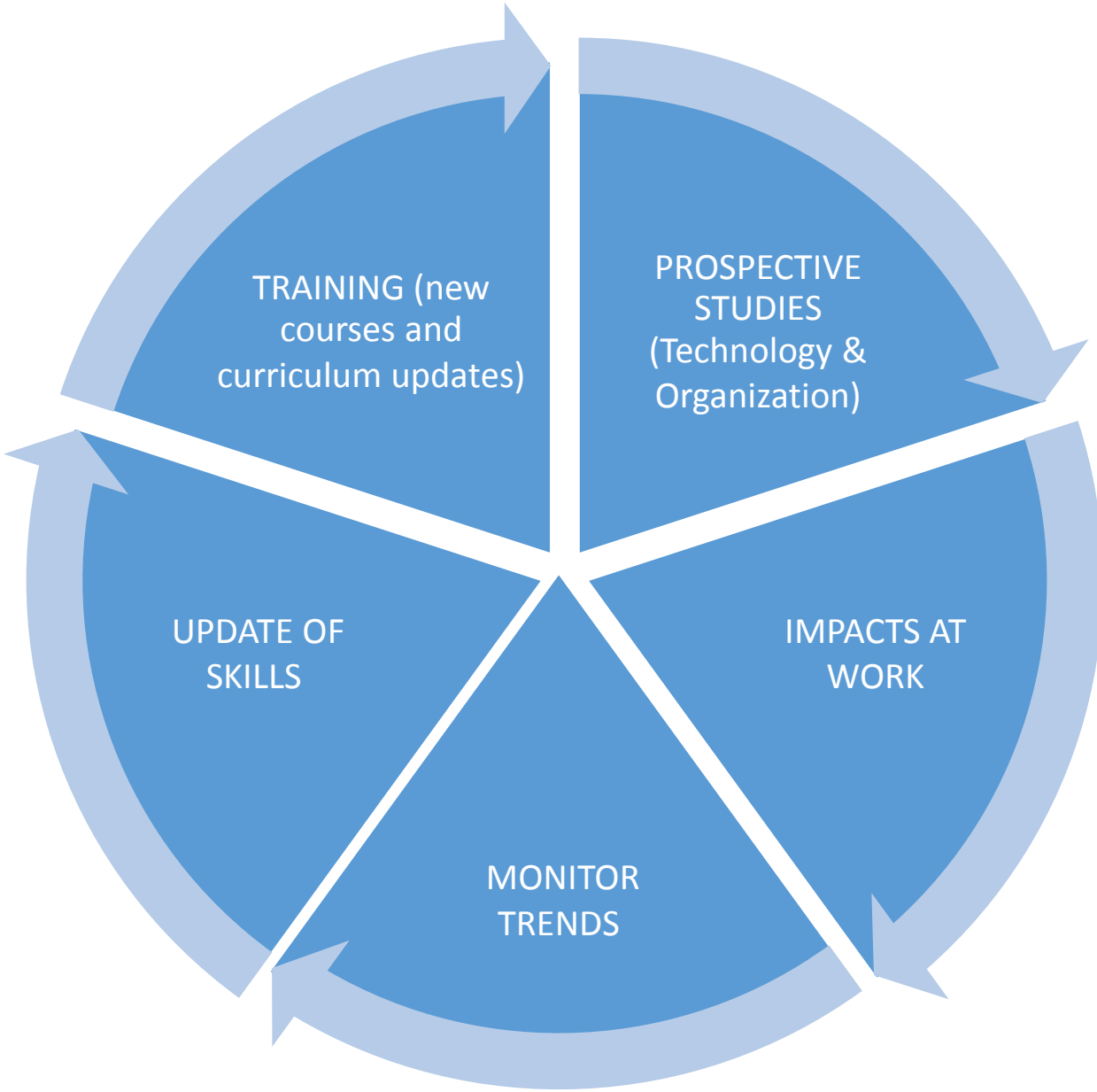
TECHNOLOGICAL DIFFUSION ESTIMATION IN THE METALMECHANIC BRAZILIAN SECTOR



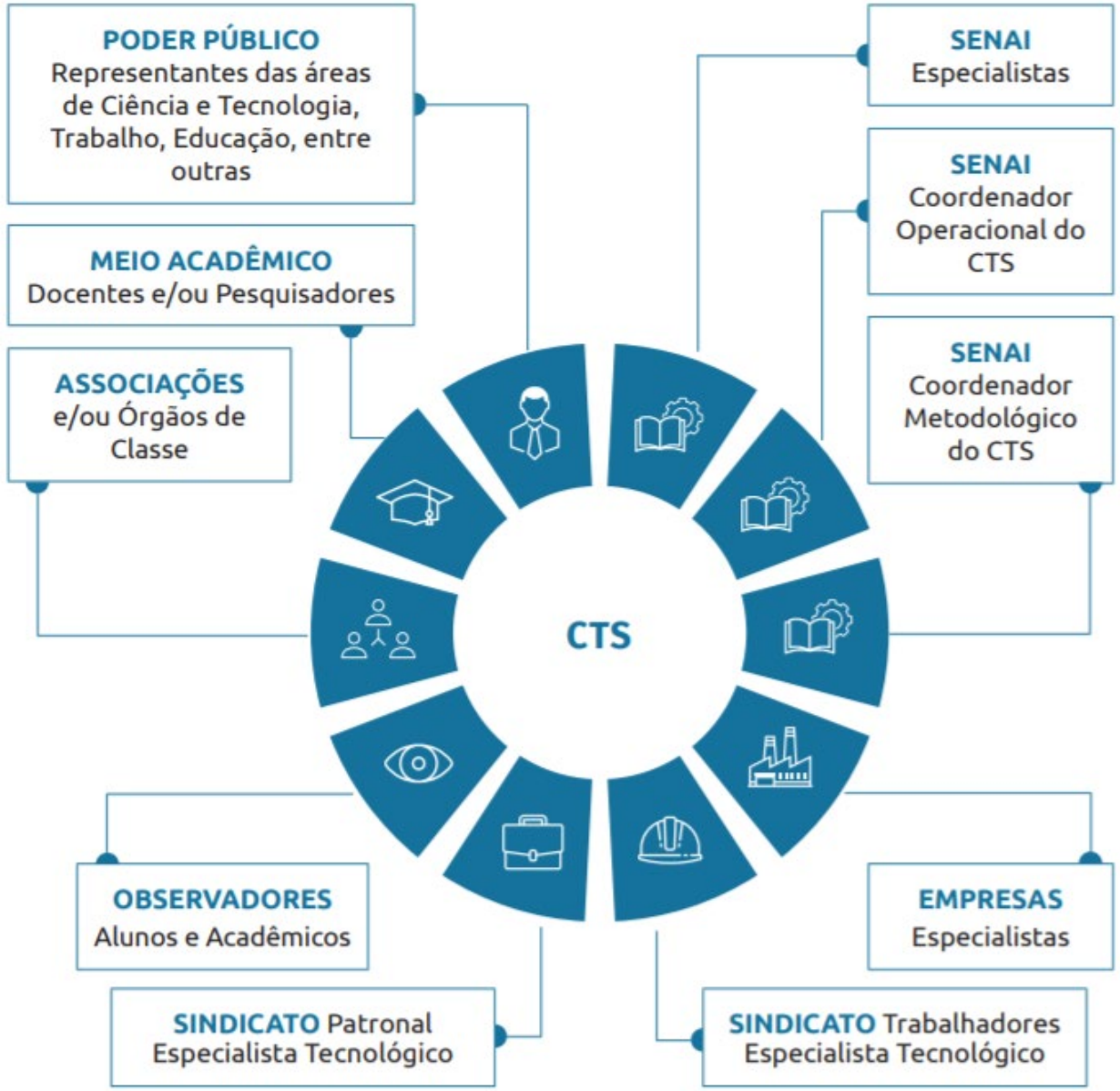
FUTURE PROFESSIONS 2020-2034 BRAZILIAN METALMECHANICAL SECTOR

NEW PROFESSIONALS	BRIEF DESCRIPTION OF THE PROFESSIONAL'S ACTIVITIES	MAIN KNOWLEDGE	PRINCIPAIS HABILIDADES
TOOL MACHINE PROGRAMMER	Will program and execute machining processes for various parts and mechanical drawings, as well as their interpretation.	Mechanical design, CAD and CAM, manufacturing process, technical English.	Deductive reasoning, fluency of ideas, multitasking, perception of problems, creativity.
DESIGNER OF PROJECTS AND PRODUCTS	Will plan and execute parts designs for machines, equipment and tools.	Mechanical design, CAD and CAM, manufacturing process, materials mechanics, drawing techniques, visual communication, technical English.	Deductive reasoning, fluency of ideas, multitasking, perception of problems, creativity.
SPECIALIST IN INFORMATION MANAGEMENT	Will analyze and manage large amounts of data as well as ensure the integrity and security of the data.	Applied computing science; Computers and Electronics.	Digital fluency; Innovat
ADMINISTRATOR OF CONNECTIVITY	Will ensure the speed and integrity of processing, as well as the stability and availability of the network for automated machine connectivity.	Applied computing science; Computers and Electronics; Types of networks; types of data transmission.	Digital fluency; Innova

A CONTINUOUS PATH



SECTORAL TECHNICAL COMMITTEES



A NEW ROLE

SHARE FAST

TVET Forsigth Network for Latin America and the Caribbean

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