

# OVERVIEW OF THE SIM-MWG-14 M4DT DEVELOPMENTS

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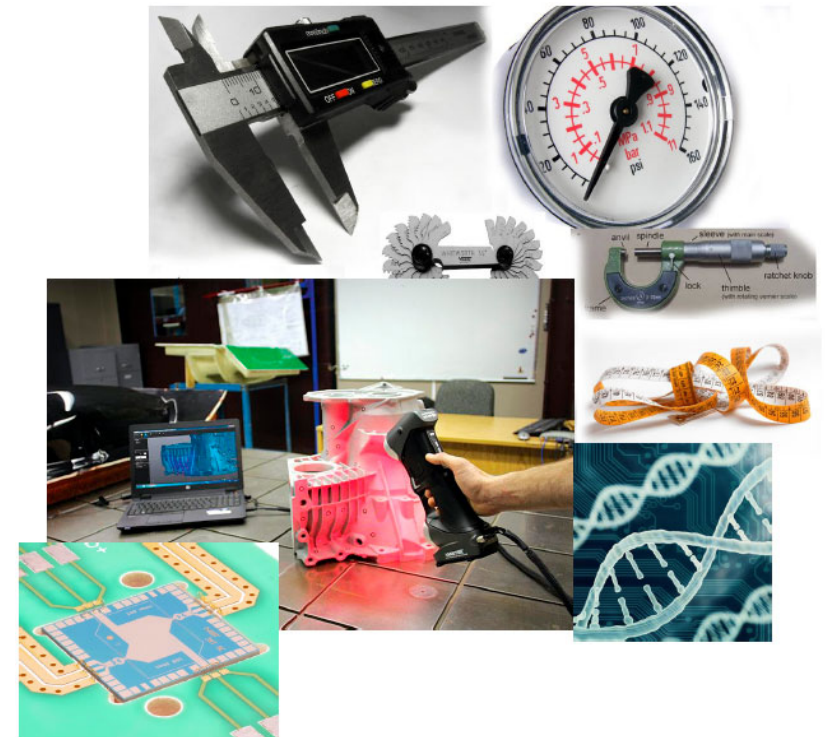
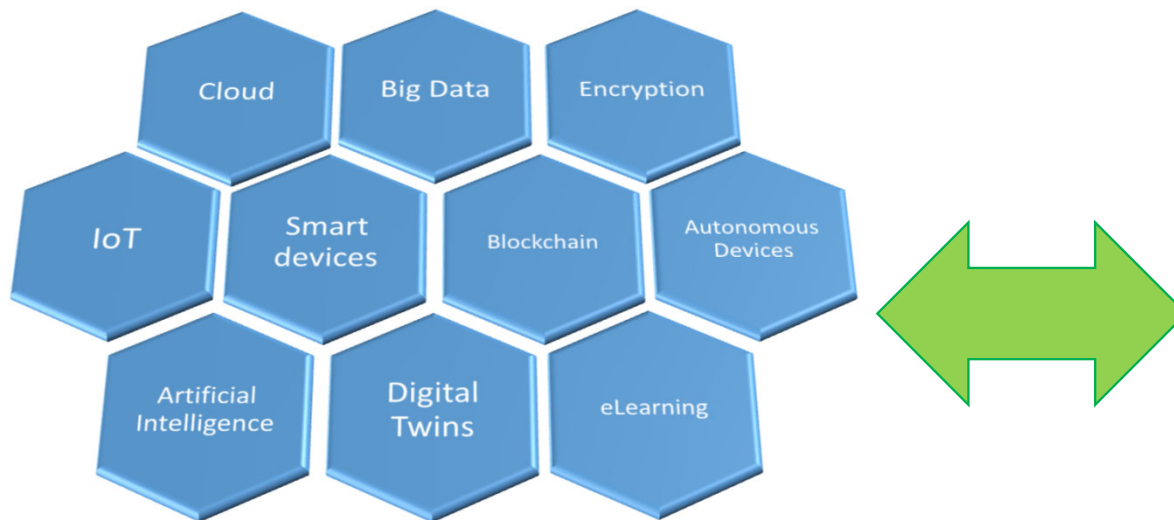


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# M4DT & DT4M



<https://www.metalmecanica.com>

[www.nist.gov](http://www.nist.gov)

<https://www.bestreviewguide.in/metrology>

# BUILDING A CONFIDENT FUTURE FOR...

METROLOGICAL TRACEABILITY  
ASSURANCE, COMPARABILITY  
AND TRUST IN MEASUREMENTS

WARRANTY OF REPRODUCIBILITY  
OF DATA PROCESSING

MEASUREMENTS & DATA  
ACTIONABLE BY MACHINES:  
AUTOMATIC + AUTONOMY ->  
METADATA

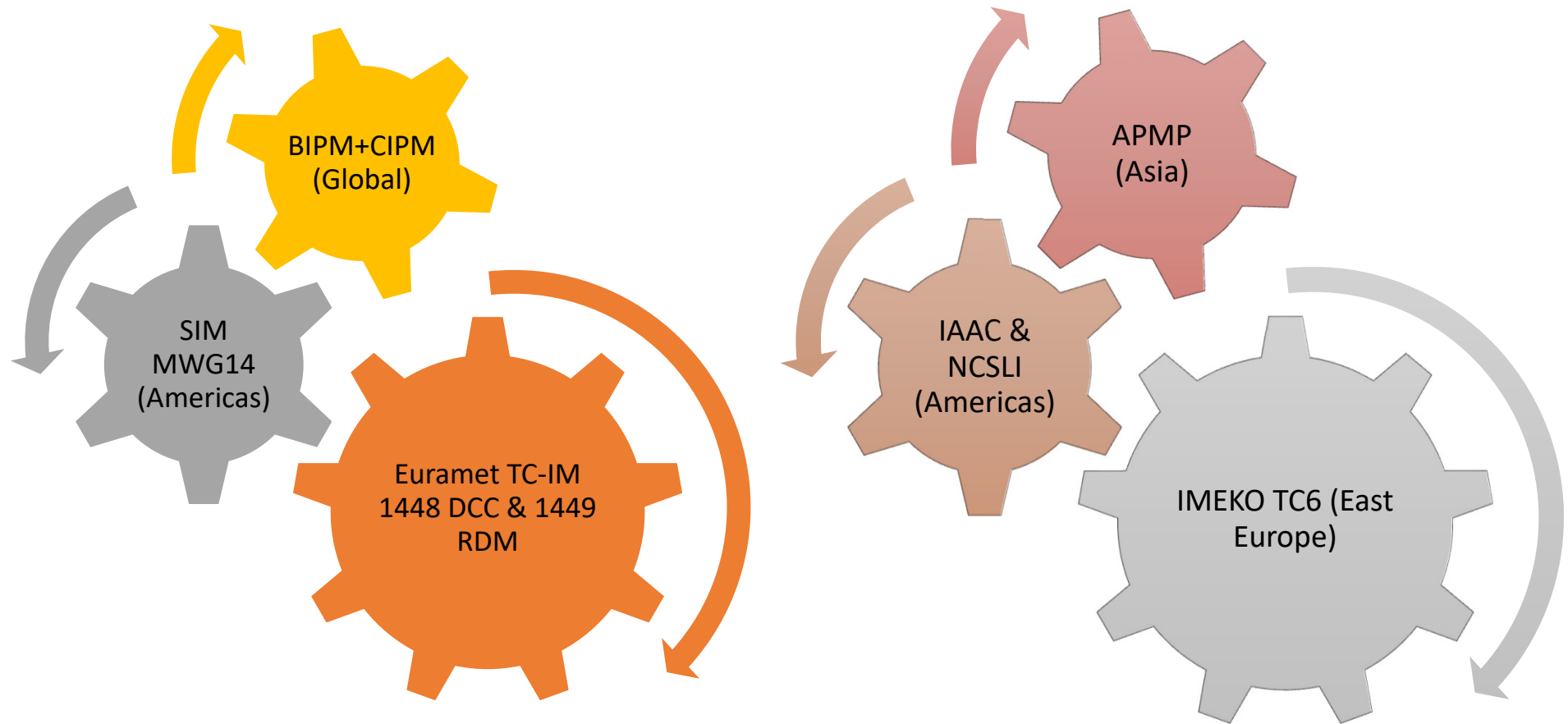
VIRTUAL INSTRUMENTS, DIGITAL TWINS, REMOTE  
PRESENCE & SENSING

DIGITAL UNITS & MEANSURANDS/QUANTITY  
TYPES (ONTOLOGIES)

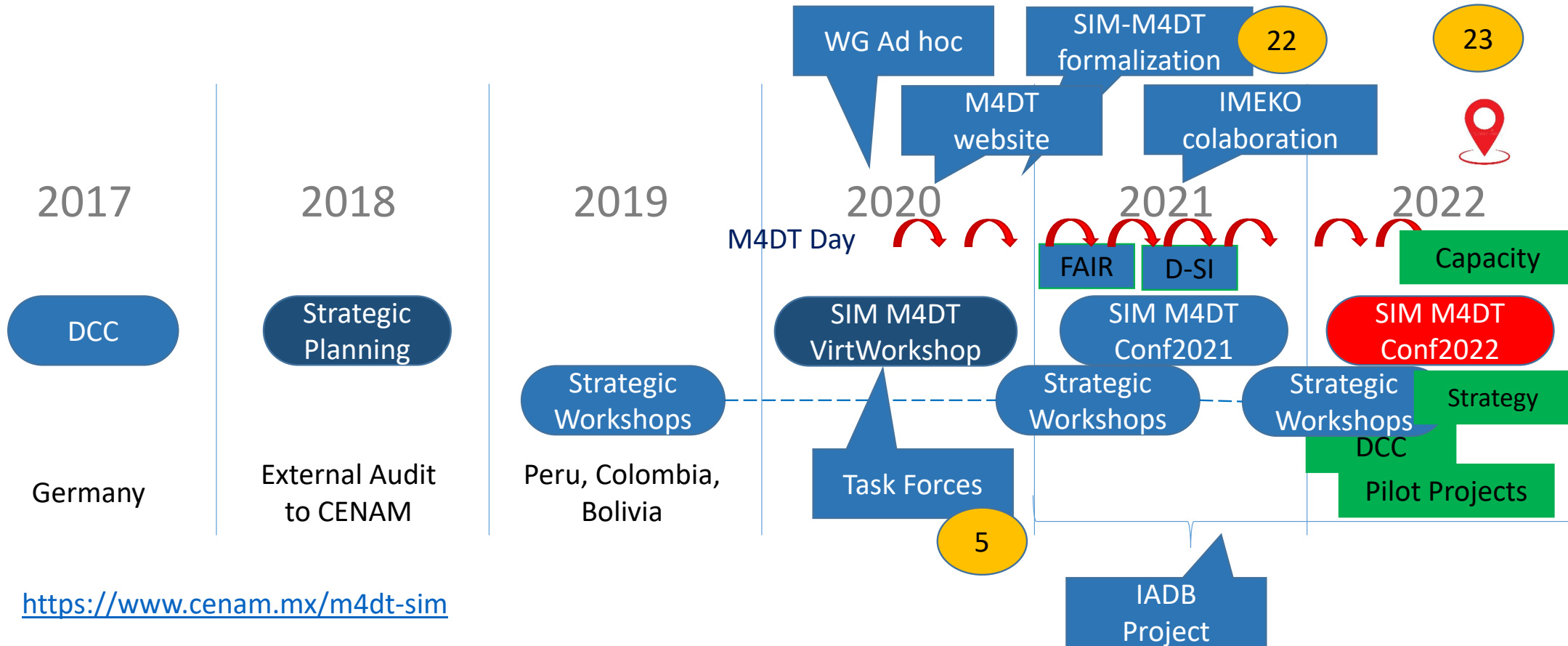
DIGITAL STANDARD STATEMENTS (NORMATIVITY)  
-> VIRTUAL AUDITING AGENTS

DIGITAL CERTIFICATES OF SERVICES  
(CALIBRATION, CRM, ACCREDITATION, CMC,  
TRAINING COMPETENCE, PROFICIENCY TESTING)

# GLOBAL EFFORT



# BACKGROUND



# IDB PROJECT

## 2021-2023

### CAPACITY BUILDING BY EXCHANGE OF EXPERIENCES

- DCC DEVELOPMENT
- LAB AUTOMATION AND REMOTE CALIBRATION

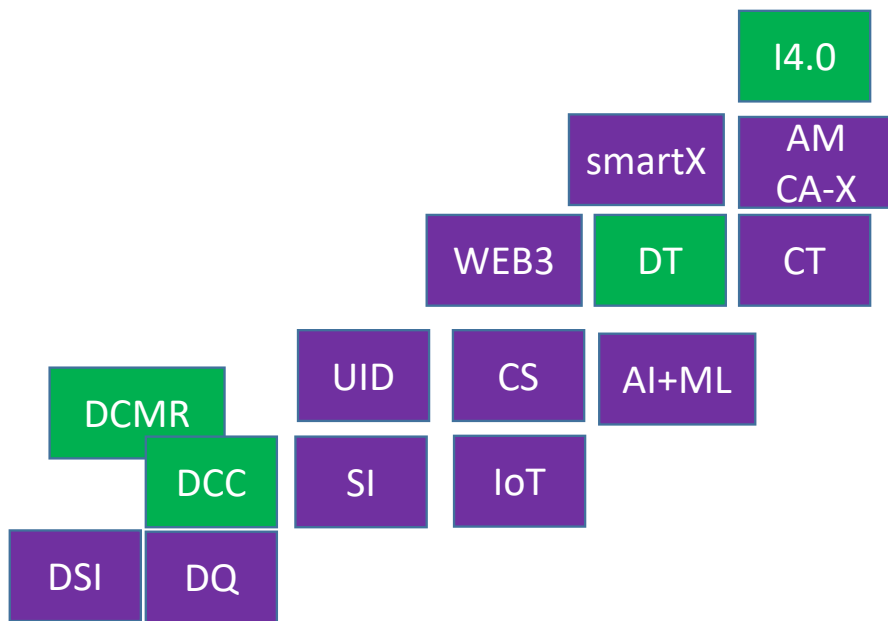
### RESEARCH & DEVELOPMENT PROJECTS

- OPTICAL 3D MEASURING SYSTEMS – DIMENSIONAL TRACEABILITY
- METROLOGICAL EVALUATION OF LUNG ULTRASOUND USING VIRTUAL VSM FOR DIAGNOSIS
- TIME AND FREQUENCY DIGITAL PLATFORM
- DEVELOPMENT OF A THB WITH DIGITALIZATION CRITERIA

### DEVELOPMENT OF A REGIONAL PUBLIC GOOD

- PROPOSAL FOR PROFICIENCY TESTING MANAGEMENT SYSTEM ON BLOCKCHAIN TECHNOLOGY

# ROUTE MAP 2030



2022-2023 DCC FIRST DELIVERED SERVICES

2024 INTEGRATED PORTAL SYSTEM FOR METROLOGICAL SERVICES

2025? UNIVERSAL DIGITAL IDENTIFICATIONS

2026 STANDARDIZED SEMANTIC ECOSYSTEM

2026 DIGITAL TWINS IN PRODUCTIVE VALUE CHAINS + CLOUD TECHNOLOGIES + NEW SERVICES

2028 SMART SERVICES + PROGNOSTICS

2030 INDUSTRY 4.0, SMART VEHICLES, SMART HOMES, SMART CITIES

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