



GLOBAL INSTITUTE FOR  
DIGITAL COMPETITIVENESS

GLOBAL AI  
WEEK



**Paloma Reinoso Otero**

Product Manager at Altair



[www.gidcomp.org](http://www.gidcomp.org)

**Paloma Reinoso Otero**

# **Cómo impulsar la transformación digital con Altair IoT**



# About me

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- Senior Product Specialist en Altair España (mayo 2022 – Actualidad)
- Product Specialist en Altair España ( julio 2021 – mayo 2022)
- Becaria de IoT en Altair España (septiembre 2020 – julio 2021)
- Máster en Ingeniería Industrial por la Universidad Pontificia Comillas Madrid, España.
- Ingeniera Industrial por la Universidad Pontificia Comillas Madrid, España.



# About Altair

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**1985**

Founded & Headquartered  
in Troy, MI U.S.

**13,000+**

Customers  
Globally

**\$532M**

FY21  
Revenue

**86**

Offices in  
25 Countries

**3,000+**

Engineers, Scientists,  
and Creative Thinkers

**150+**

Altair and Partner  
Software Products



Leverage computational science to drive intelligent decisions for a more connected, safe, and sustainable future.



# Deep modeling, visualization, and simulation solvers portfolio

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Studio



Structures



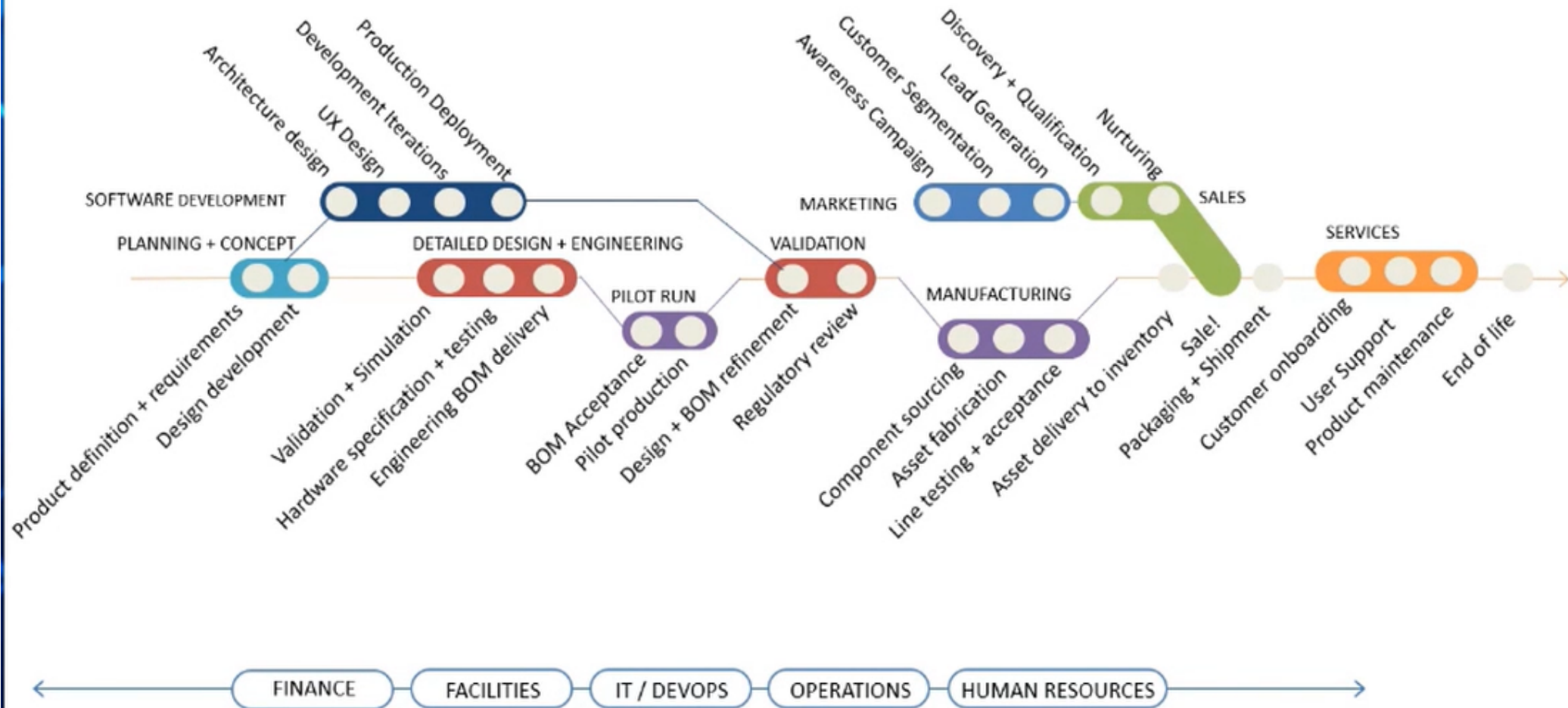
Motion



Manufacturing Processes

The industry's most powerful and intuitive solution for design engineers to create high performing and manufacturing products.

# Accelerating the Digital Thread



# A GLOBAL EVOLUTION TOWARDS A SMART, CONNECTED EVERYTHING



+ 21 billion  
sensors  
connected



Economic value  
\$1.6 trillion  
\$10 - 15 trillion  
by 2025



79% of  
organizations  
are planning to  
invest in IoT



75 % of  
projects FAIL



# Convergence of OEM and IoT software provider

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# Altair Digital Twin

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An industry-defining, all-in-one, end-to-end digital twin solution that features unmatched simulation compute power, Internet Of Things (IoT) capabilities, and world-class data intelligence tools all under one roof

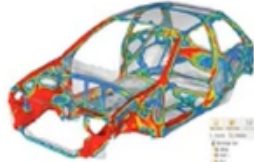
**ONE TOTAL**  
**TWIN**<sup>TM</sup> DIGITAL TWIN  
BY ALTAIR



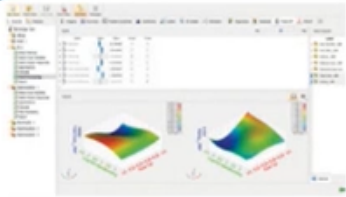
# Technology stack for Digital Transformation

## Simulation

Physical Based Simulation



Optimization & DOE



Multi-disciplinary Systems Simulation



Math-scripting, Data Analysis & Visualization



## Data Analytics

Data Automation & Collaboration



Self Service Data Preparation



Data Mining & Predictive Analytics

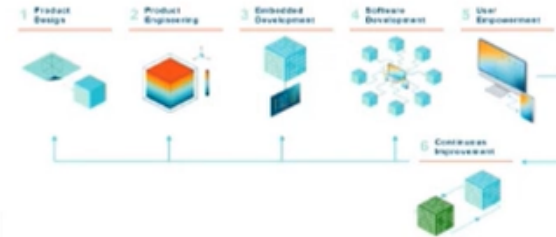


Real time Data Visualization



## IoT

Smart Product development



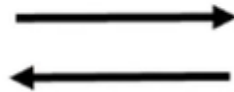
Leveraging smart connected ecosystems



# Dashboard Creator for Asset Monitoring

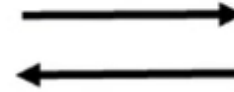


**Devices**



**SmartWorks IoT  
Cloud Backend**

- Communication between devices and the application
- Store data from the device
- Transform and filter the data
- Set alerts/notifications
- Integrate with ML models
- Develop custom algorithms



**SmartWorks IoT  
Real-time Visualization**

- Real-time Charts, and Graphs
- Dozens of Data Connectors
- Device Control



# Dashboard Creator for Asset Monitoring

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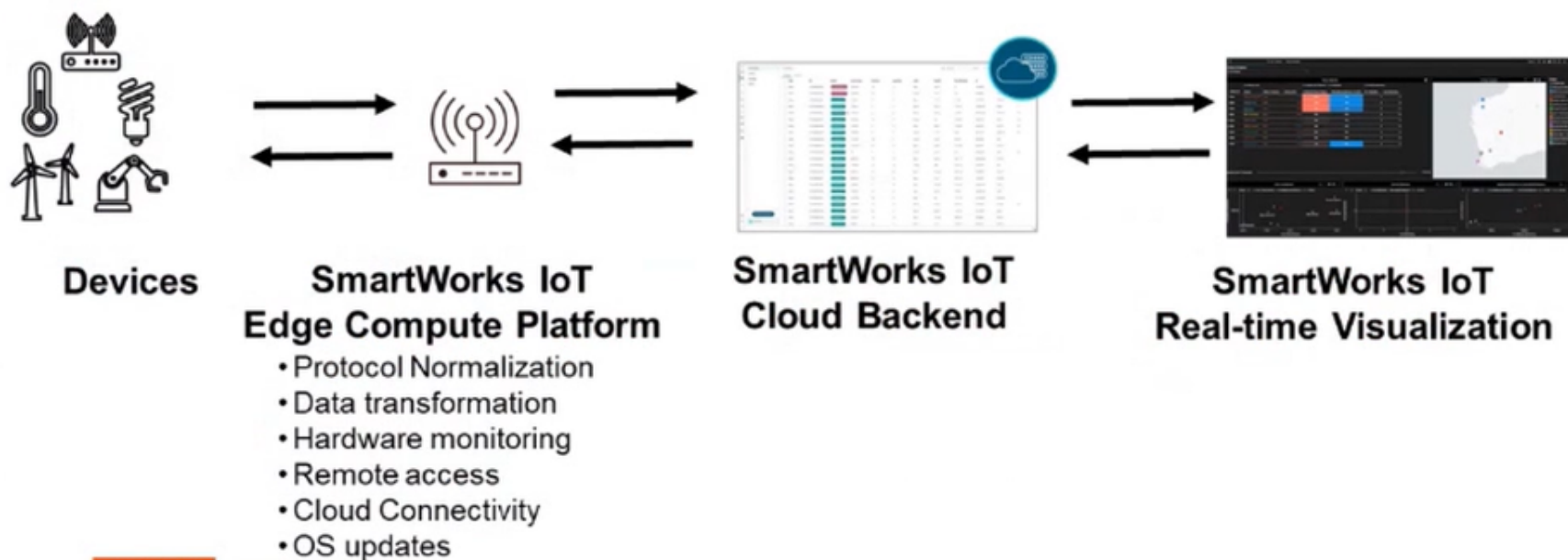


**We could set up the interfaces to connect structural integrity models with SmartWorks IoT, right out of the box.**

This empowers operators to leverage the powerful models originally used to design their plant, feeding into them the live operational data from the plant throughout its life to gather critical insights and make decisions.

Dr. Adam Towse, Head of Discipline (Simulation and Assessments), Assystem

# Orchestration platform for Edge AI and Automation



# Orchestration platform for Edge AI and Automation



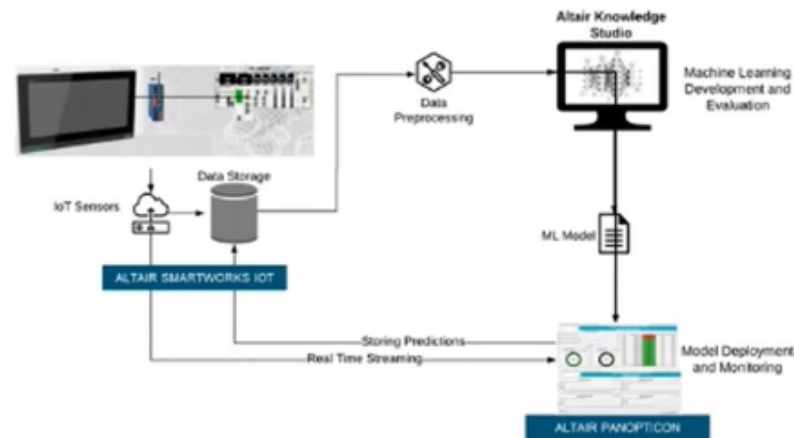
## Meeting industry 4.0 goals

### Challenge

Implement a workflow that allows the collection of data from different machines to monitor on real-time the operational progress at the factory

### Solution

Use Altair SmartWorks IoT and Altair Analytics tools to implement data acquisition, database feeding and advanced dashboarding



# Orchestration platform for Edge AI and Automation

**VORTEX**  
Bladeless



## Reinventing Wind Power Generation

### Challenge

Find a solution that avoids the current problems of wind turbines and achieves all the advantages of solar energy. By developing a new line of investigation for innovative wind technology, design a prototype that brings the best of both technologies.

### Solution

The collaboration between Vortex Bladeless and Altair started with a technical project to simulate the device's aerodynamic behavior.

- Performed a fluid-structure interaction study with Altair® CFD™
- Used Altair® OptiStruct® to build models that let engineers predict the movement of Vortex Bladeless at different wind intensities.
- Using Altair® Flux®, the teams ran simulations studying the amount of electromagnetic flux traveling through the alternator's center coil.
- Altair® SimSolid® to study the fatigue
- Altair® SmartWorks™ IoT provided the tools to enable the communication between the device and the cloud via MQTT to be able to develop the Digital Twin of the Vortex.



# Orchestration platform for Edge AI and Automation



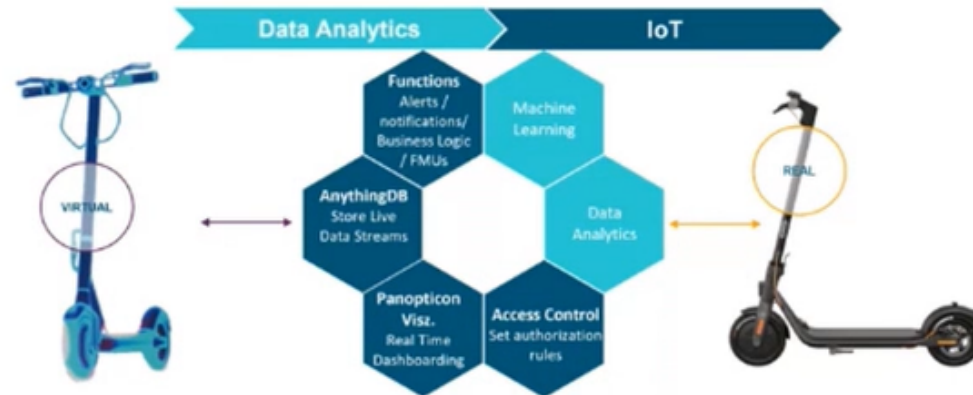
## Augmenting Reality with Virtual Sensors

### Challenge

Create a reliable data source for digital twins when no actual data is available from sensors in the field or historical data sets.

### Solution

- Enable virtual sensors (data feeds) with simulation
- Generate datasets from simulation to train data models
- Physics based model to enhance sensor data (placement, accuracy, tuning)





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**TECHNOLOGY FOR INCREASE EFFICENCY**



# Just one goal, Create value with technology.

Through 5 different specific strategies:

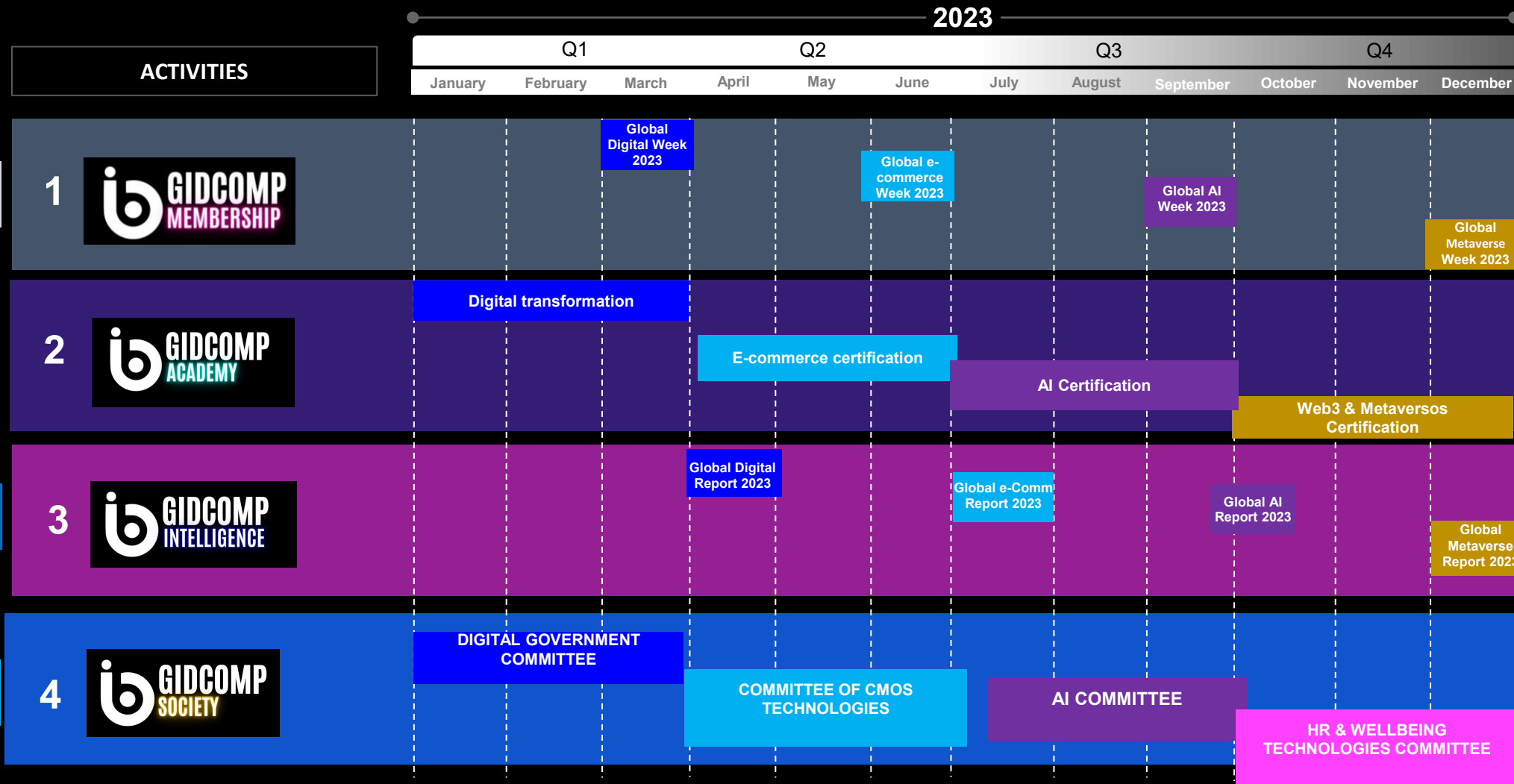
- 1** Spreading and encouraging the use of technologies to increase the efficiency of organizations from all over the world
- 2** Connecting organizations and executives to create more value, sell more in an omnichannel, and geopolitically fragmented world.
- 3** Work together with authorities and institutions to remove barriers to technologies and trade
- 4** Bring experts, knowledge and cases to communities or regions with little access to technological knowledge and digitalization to make opportunities inclusive.
- 5** Establish Committees by type of technology to share uses, applications, as well as groups that want to interact, collaborate and test new applications in the practical field.



# Some brands that are part of our international ecosystem



# Calendar GIDCOMP 2023



The GIDCOMP with its purpose of contributing to reduce the global digital divide holds several international festivals inviting senior leaders to share and inspire people to create value and generate experiences in Web 3.0 with new technologies

1

# GIDCOMP Immersive Festivals

# Free immersive festivals by streaming in english and spanish

## GLOBAL DIGITAL WEEK 2023

### International experts

- Día 1. Smart Cities
- Día 2. Public Policies
- Día 3. e- Commerce
- Día 4. Disruptive Business
- Día 5. Wellness Technologies

Marzo 27 al 31

## GLOBAL E-COMMERCE WEEK 2023

### Internanional experts

- Día 1. Marketplaces
- Día 2. Digital Commerce
- Día 3. Omnichannel
- Día 4. Metacommerce
- Día 5. Customer Experience

Jun 26 al 30

## GLOBAL AI WEEK 2023

### International experts

- Día 1. Robotics & AI
- Día 2. IOT
- Día 3. Automation
- Día 4. AI Performance
- Día 5. Machine Learning

Sept 11 al 15

## GLOBAL METAVERSE WEEK 2023

### International experts

- Día 1. Immersive Technologies
- Día 2. Omnichannel
- Día 3. NFTs & Blockchain
- Día 4. 3D & Web 3.0
- Día 5. Artificial Intelligence

Diciembre 4 al 8



The Academy Division seeks to bring international experts in practice together to share their pragmatic and tactical execution lenses in leading global companies.

The main mission is for executives to develop the skills in practice in order to increase the efficiency and sales of brands.

2

# **ib** GIDCOMP ACADEMY



# GIDCOMP ACADEMY HELPS PROFESSIONALS BECOME MORE COMPETITIVE

## CERTIFICATION IN: DIGITAL TRANSFORMATION

The digital transformation certification seeks to help decision makers to digitize business. In order to develop skills to add value and differentiation through innovation in brands.

[See agenda](#)

### UPCOMING START DATES:

**Beginning**

JANUARY 14, 2024

**Closing of admissions**

DECEMBER 15, 2023

## CERTIFICATION IN: E-COMMERCE AND OMNICHANNEL

The *certification in e-commerce & Omnichannelity* seeks to help decision makers to digitize businesses. In order to develop skills to add value and differentiation through innovation in brands.

[See agenda](#)

### UPCOMING START DATES:

**Beginning**

APRIL 16

**Closing of admissions**

MARCH 20

## AI CERTIFICATION APPLIED TO MARKETING AND BUSINESS

The certification in AI for marketing and sales areas seeks to help decision makers maximize results, optimize budgets, predict customer behavior, study, define and segment users, predict audiences and improve operational efficiency.

[See agenda](#)

### UPCOMING START DATES:

**Beginning**

AUGUST 15

**Closing of admissions**

JULY 30

## CERTIFICATION IN: WEB 3 AND METAVERSES

This certification seeks to provide the tools for executives to take their organizations to web3 and metaverses. Immersive technologies will allow superior experiences both at the retail level with augmented and mixed reality and on the web3 with virtual stores and specialized metaverses.

[See agenda](#)

### UPCOMING START DATES:

**Beginning**

OCTOBER 01

**Closing of admissions**

SEPTEMBER 3RD

3



Research, prototypes, tests, reports  
and Digital Laboratory

Global Metaverse  
Report 2022  
Release for November  
2022

Global Digital  
Report 2023  
Release for February 2023

Meta  
Commerce 2023  
Release for June 2023

Digital poles  
2023  
Release for November 2023

**POSITIONING AND BRAND PRESENCE IN METAVERSES**

1 CONNECTING WITH CONSUMERS - ESTEFANÍA YAGÜEZ, HEAD OF CONSUMER INTELLIGENCE AT L'ORÉAL

2 MARKETING AND BRANDING – FERNANDO CANO, MANAGING DIRECTOR OF HAVAS METAVERSE

**OMNICHANNEL COMMERCE**

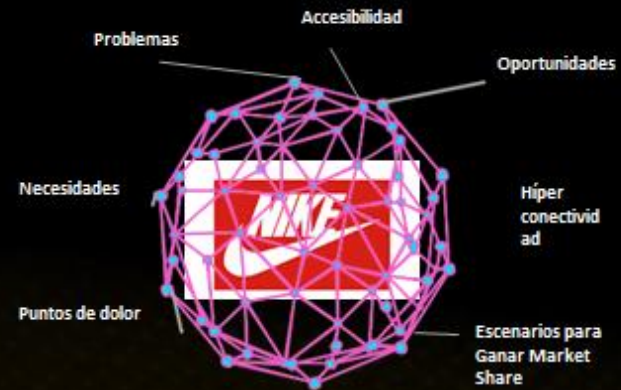
1 VIRTUAL STORES – JONATHAN MÁSMELA, CEO DE LA COLONIA

2 SALES IN METAVERSES – THORSTEN WALTHER, CEO DE INSPIFY

**MASSIVE METAVERSES**

1 MANAGEMENT OF VIRTUAL COMMUNITIES, DANIELLE MCCONNELL, CMO DE VIRTWAY

2 SPECIALIZED METAVERSES, SORAYA CADALSO, CEO DE UTTOPION



**Market fit. Short term**

- Incorporate technological applications
- Prioritization in terms of sales impact

**Market fit. Medium term**

- Be the first to incorporate technologies
- Prioritization in terms of sales impact

**Current Portfolio**

1. Tenis
2. Ropa
3. Accesorios

**Tailored Portfolio (medium term)**

1. NIKELAND
2. Clothing with technological applications.
3. Monitoring Accessories

Example: Non-exhaustive Business Unit NIKE.

# Technology adoption diagnostics

## Reasons to join **GIDCOMP**:

4



- 1 To receive **information on Business Intelligence and Technology trends**
- 2 To **leverage existing technology** (leap Frog)
- 3 To generate **networking / community**
- 4 To have **visibility** of applications in the use of **technologies**
- 5 To inform me and keep abreast of the **latest news**
- 6 To receive **support or consultancy**
- 7 To **train** my team in the face of new market challenges
- 8 To generate **relationship with Authorities**
- 9 Access to **+300 Experts from more than 52 countries** and presentations of their models at our festivals



# Accompanied by senior international leaders who lead the committees

Smart Cities,  
Sustentabilidad & Industria  
4.0, Public Policy, e-  
government  
&Ciberseguridad

Blockchain and NFT.  
Digital Economy,  
Artificial Intelligence

Data Science & Big  
data, RH & Well-being  
Technologies,  
Education Technology

Metaverses, immersives  
Technologies (RA, 3D, RM,  
RV), Experiences  
Omnicanal & Digital  
Commerce

Social enterprises,  
Sustainability, Social  
Digital Business, Social  
responsibility

Governments, Int. Agencies

CTOs, CDOs, CIOs

CRHOs, COOs, CHOs.

CEOs, CMOs. CSOs.

CSR, ONGs,

Macro

Application of technologies

Micro

## Affiliates will live an international Figital experience

Meetings are held weekly as follows: E.g. Metaverse Committee

Canal	Hours	Assistants	City	Physical host
Metaverse	1.5 hours	10		
physical	30 min	4	CDMX	Sura
		2	Bogotá	Coats
		4	Madrid	Let me Park

- ❖ **ANNUAL OBJECTIVES OF THE COMMITTEES:**
- ❖ Publish trends by technology.
- ❖ Collaborations with media.
- ❖ Working papers.
- ❖ Video Cases and documentaries.
- ❖ International networking.
- ❖ Coordination of Roadshows.
- ❖ Support to associations, international organizations, governments, chambers, universities with the digital knowledge bank and global network of experts
- ❖ Recognition of executives and exposure of brands that collaborate in the integration of knowledge.
- ❖

■ Social responsibility activities of access to the public, via streaming and technological platforms with co-organizing brands.

# VICE PRESIDENTES DIGITAL GOVERNMENT

## Committee 1

### Objective:

The Digital Government committee of GIDCOMP aims to share best practices, analyze trends, create articles and reports to different stakeholders.

### Technological themes:



**1. SOSTENIBILIDAD**

**2. SMART CITIES**

**3. FINTECH**

**4. CIBERSEGURIDAD**



**ROBERTO HERNÁNDEZ**  
FORMER CEO LATAM OCDE  
PUBLIC POLICY GIDCOMP VP



**HÉCTOR CARDENAS**  
CEO THE ERGO GROUP  
E-GOVERNMENT COMMITTEE VP



**JUAN CARLOS REYES**  
CEO ANTI FRAUDE  
CIBERSECURITY GIDCOMP VP



**LUIS GODOY**  
FORMER CEO DE INTELIGENCIA  
ECO GLOBAL  
PUBLIC POLICY GIDCOMP VP

# VICE PRESIDENTS

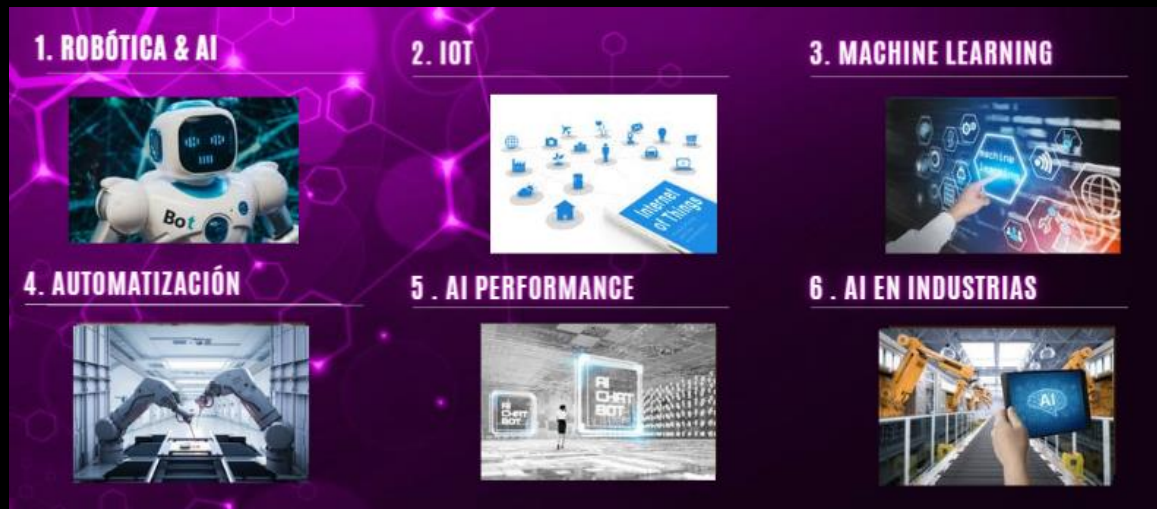
## ARTIFICIAL INTELLIGENCE & DISRUPTIVE TECHNOLOGIES

### Committee 2

#### Objective:

The Artificial Intelligence & Disruptive Technologies committee of GIDCOMP aims to share best practices, analyze trends, create articles and reports to different stakeholders.

#### Technological themes:



FERNANDO CARRIO  
O2O MARKETING EXECUTIVE  
AI GIDCOMP VP



MIRIAM ESPICHÁN  
ANALISTA DE MARKETING & CONTENIDOS  
DISRUPTIVE TECHNOLOGIES GIDCOMP VP



MARISOL CAPETILLO  
CEO OF VERSE TECHNOLOGY  
INDUSTRY 4.0 GIDCOMP VP



RAMÓN MARTÍNEZ  
CEO DE HIRXLAB  
TECNOLOGÍAS DISRUPTIVAS GIDCOMP VP

# VICE PRESIDENTES HR & WELLBEING TECHNOLOGIES

## Committee 3

### Objective:

The HR & Wellbeing Technologies committee of GIDCOMP aims to share best practices, analyze trends, create articles and reports to different stakeholders.

### Technological themes:.

**1. HR AGILE**  
**2. PEOPLE ANALYTICS**  
**3. WELLBEING TECHNOLOGIES**  
**4. FOW 2050**  
**5. TECH TRAINING**  
**6. EMPLOYEE CX**



**MONTSERRAT CAZORLA**  
GLOBAL LEAD ATTRACTION & RETENTION  
CHG-MERIDIAN  
HR TECHNOLOGY GIDCOMP VP



**SUSANA NILA**  
FUTURE EMPLOYABILITY EXPERT  
FOW 2050 GIDCOMP VP



**JULIÁN VARAS**  
CEO OF C1DO1  
ED TECH GIDCOMP VP



**EMILIO SERRA**  
DATA & ANALYTICS ONE SR. MANAGER  
DANONE  
BIG DATA & DATA SCIENCE GIDCOMP VP



# VICE PRESIDENTES DIGITAL COMMERCE

## Committee 4

### Objective:

The Digital Commerce committee of GIDCOMP aims to share best practices, analyze technological trends, create articles and reports to different stakeholders.

### Technological themes:



**FERNANDO CANO**  
METAVERSE GENERAL DIRECTOR  
GRUPO HAVAS MEDIA  
BRAND & METAVERSE GIDCOMP VP



**JENIFER SAMANIEGO**  
VIRTUAL REALITY HEAD CLUB  
CATHOLIC UNIVERSITY OF LOJA  
REALIDAD VIRTUAL GIDCOMP VP



**RANDY CRUZ**  
CITI MANAGER RAPPI  
DIGITAL COMMERCE GIDCOMP VP



**ELADIO GONZÁLEZ**  
EDITORIAL DIRECTOR AT FORBES  
CENTRAL AMERICA  
DIGITAL MEDIA GIDCOMP VP

# VICE PRESIDENTES ONGs & RSC

## Committee 5

### Objective:

The NGO & CSR committee of GIDCOMP aims to share best technological practices, analyze trends, create articles and reports to different stakeholders.

### Technological themes:

**Comité de ONGs & RSC**  
GLOBAL INSTITUTE FOR DIGITAL COMPETITIVENESS

- 1. FORTALECIMIENTO DE ONGS
- 2. LUCHA CONTRA EL CAMBIO CLIMÁTICO
- 3. ACCESO A LA EDUCACIÓN DIGITAL
- 4. ADICCIÓN A LA TECNOLOGÍA



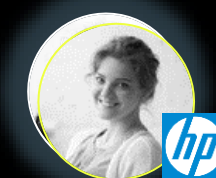
**KELLY DUQUE**  
**DIRECTOR OF PROJECTS AND PUBLIC RELATIONS**  
ONGs & CSR GIDCOMP VP



**JULISSA JIMENEZ**  
**DIRECTORA DE LMD**  
POLITICAS SOCIALES GIDCOMP VP



**JOSÉ QUESADA**  
**FOUNDER WORLD COMPLIANCE FORUM**  
TECH & COMPLIANCE GIDCOMP VP



**MONICA LÓPEZ**  
**CO-MARKETING MANAGER IN HP**  
MEJORES PRÁCTICAS DE RSC  
GIDCOMP VP

# VICE PRESIDENTES ONGs & RSC

## Committee 5

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### Technological themes:

**Comité de ONGs & RSC**  
GLOBAL INSTITUTE FOR DIGITAL COMPETITIVENESS

- 1. FORTALECIMIENTO DE ONGS
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TECH & COMPLIANCE GIDCOMP VP



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**CO-MARKETING MANAGER IN HP**  
MEJORES PRÁCTICAS DE RSC  
GIDCOMP VP

# Reasons to become a member of **GIDCOMP:**

- 1** To receive information on Business Intelligence and Technology trends
- 2** To leverage existing technology (leap Frog)
- 3** To generate networking / community
- 4** To have visibility of applications in the use of technologies
- 5** To inform me and keep abreast of the latest news
- 6** To receive support or consultancy
- 7** To train my team in the face of new market challenges
- 8** To generate relationship with Authorities
- 9** Access to +300 Mentors from 52 countries and presentations of their models at the Global Digital Week & Global Metaverse Forum.



	GIDCOMP FREE	GIDCOMP SOCIETY
<b>TECHNOLOGY TRENDS</b>		
Newsletter technology cases	x	x
Free transmission of our festivals	x	X
Short version of the studies	x	x
<b>NETWORKING, ALLIANCES AND BRAND EXPOSURE</b>		
Participation and collaboration in Disruptive Technologies Committees		x
Provide Master Classes, success stories and initiatives of your brand.		x
Participate in international studies and reports.		x
30% discount on Certifications		x
Approach to Investors to fund technological projects and Startups		x
Unlimited introductions to over 1,000 brands part of the GIDCOMP ecosystem		x
Space for a commercial presentation at our festivals		x
2-minute video space within the agenda of our festivals		x
List of speakers, people part of the GIDCOMP ecosystem		x
Put your brand on technology providers		x
<b>PRICE</b>	<b>FREE</b>	<b>500 – 4,000 USD</b>
		Annual by size*

**\*GIDCOMP SOCIETY ANNUAL INVESTMENT**

Organization size	Number of collaborators	Investment in USD	Executives
Very large	More than a thousand	5,000	5
Big	501 -1,000	4,000	4
Median	251 a 500	3,000	3
Small	6- 250	2,000	2
Micro	1 -5	1,000	1

does not cause VAT / tax deductible

Important:

All values are expressed in U.S. Dollars (USD)

Company name: Fundación Consultores Sin Fronteras A.C.  
 RFC: FCS190805FH9  
 Bank: BBVA  
 Account Number: 0113640205  
 Clabe Account Number: 012180001136402052  
 Swift code for international payments: BCMRMXMPYM  
 Mail: be.digital@gidcomp.org



## How to become a member?

Send us an email to [be.competitive@gidcomp.org](mailto:be.competitive@gidcomp.org) or a WhatsApp at: +52 56 1463 3902  
GIDCOMP seeks to bring together and relate organizations linked to the international technological ecosystem to promote and develop digital capabilities in any location in the world.  
Membership begins with the date of crediting payment to the bank account.  
Valid 12 months from the date of payment.  
Renewals begin to run from the expiration date of the current membership.

[www.gidcomp.org](http://www.gidcomp.org)  
[be.competitive@gidcomp.org](mailto:be.competitive@gidcomp.org)

