



GLOBAL INSTITUTE FOR
DIGITAL COMPETITIVENESS

GLOBAL AI
WEEK



Julien Bertolini

IoT expert at Volvo Group



www.gidcomp.org

V O L V O

INDUSTRY 4.0 - VOLVO SMART FACTORY

Julien Bertolini – IoT expert @ Volvo

Volvo Group

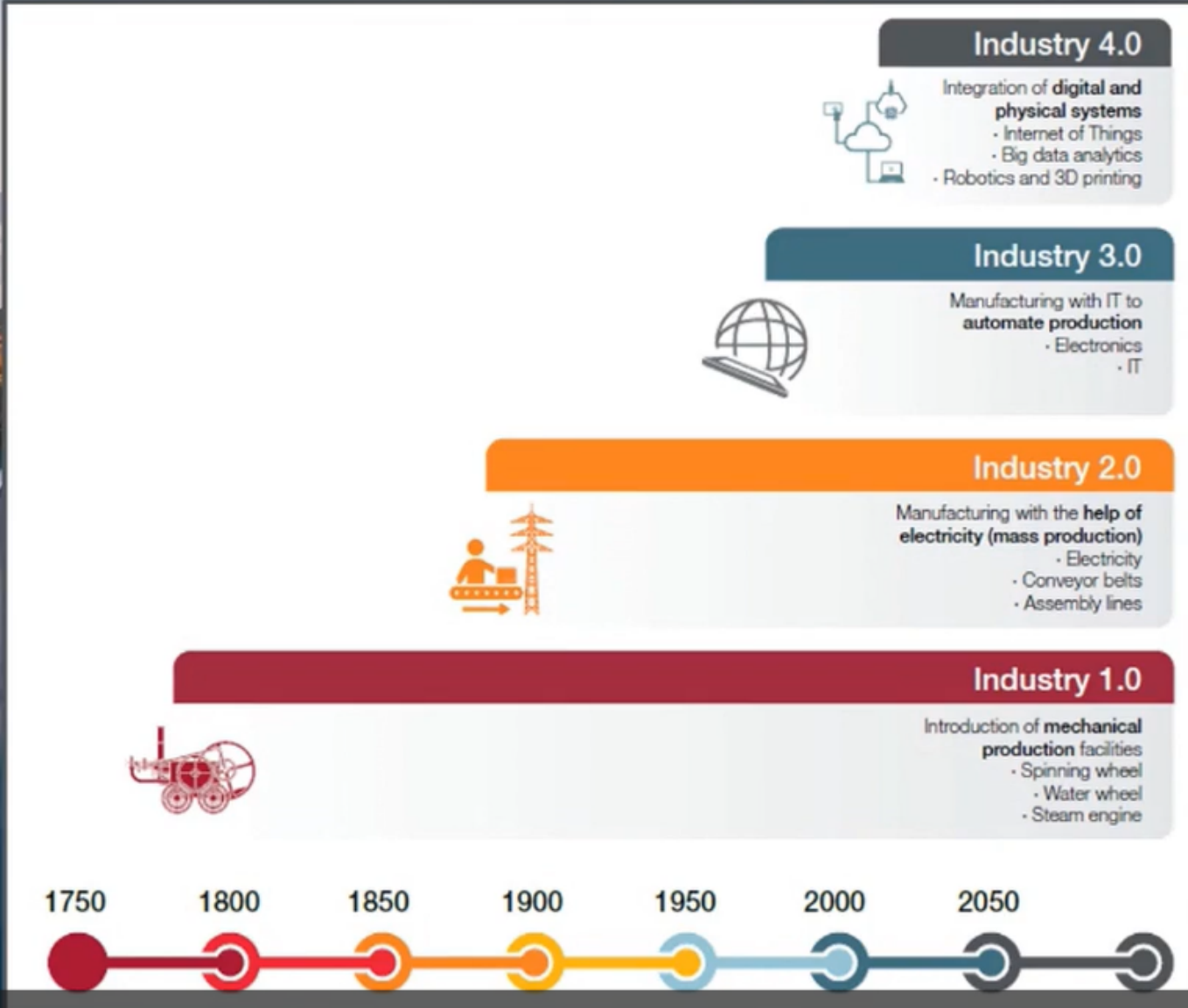
2023-03-10



**WHAT
WE
DO**



INDUSTRY 4.0 - VOLVO SMART FACTORY - I 4.0 CONTEXT

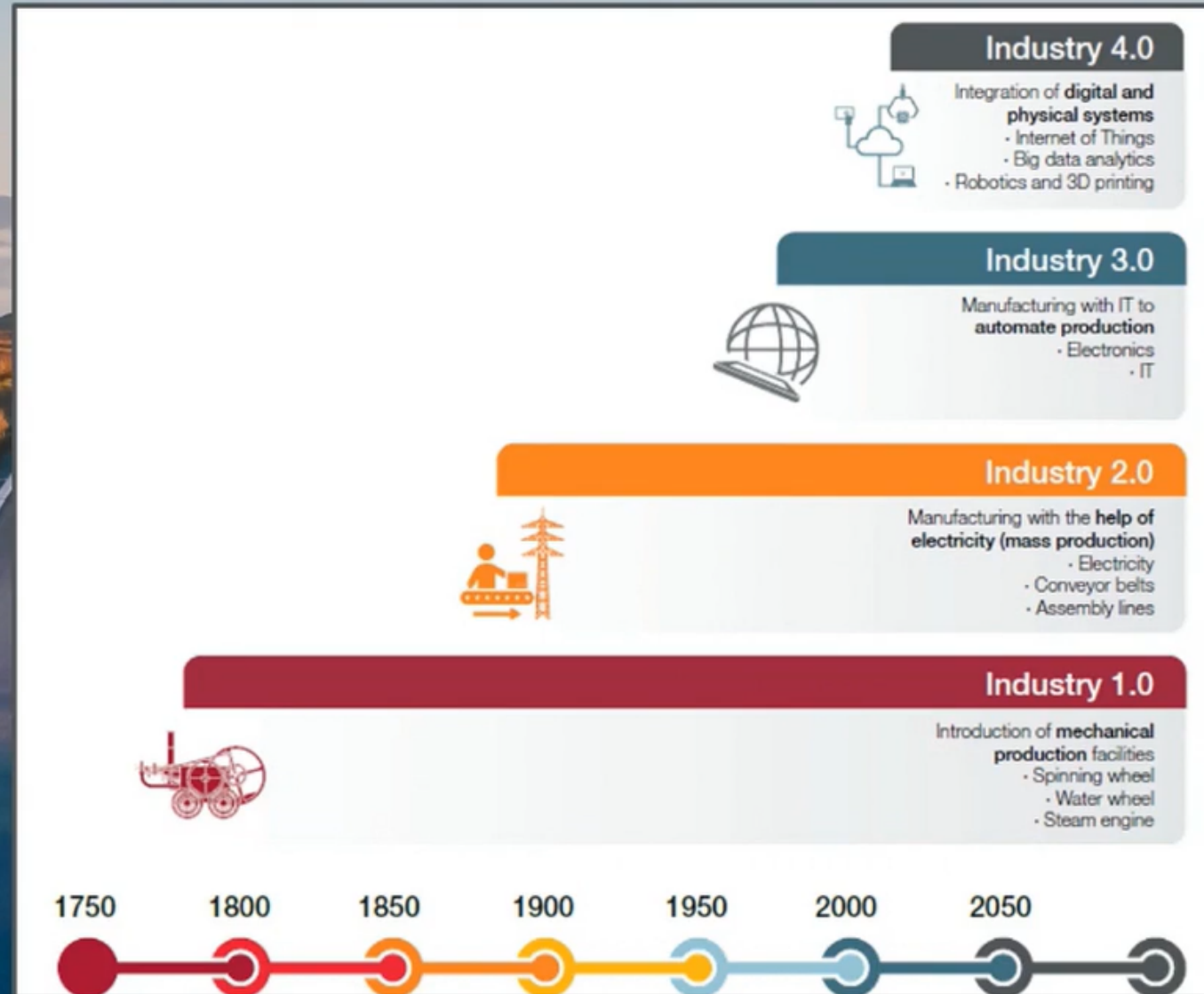


INDUSTRY 4.0 - VOLVO SMART FACTORY - I 4.0 CONTEXT

4th Industry Revolution

driven by :

- New technologies
- New customer need



INDUSTRY 4.0 - VOLVO SMART FACTORY - I 4.0 CONTEXT

Vision of Industry 4.0



- Flexibility (asynchronous/agile manufacturing)



- Reliability (equipment availability)



- Performance (OLE : Overall Labor Effectiveness)

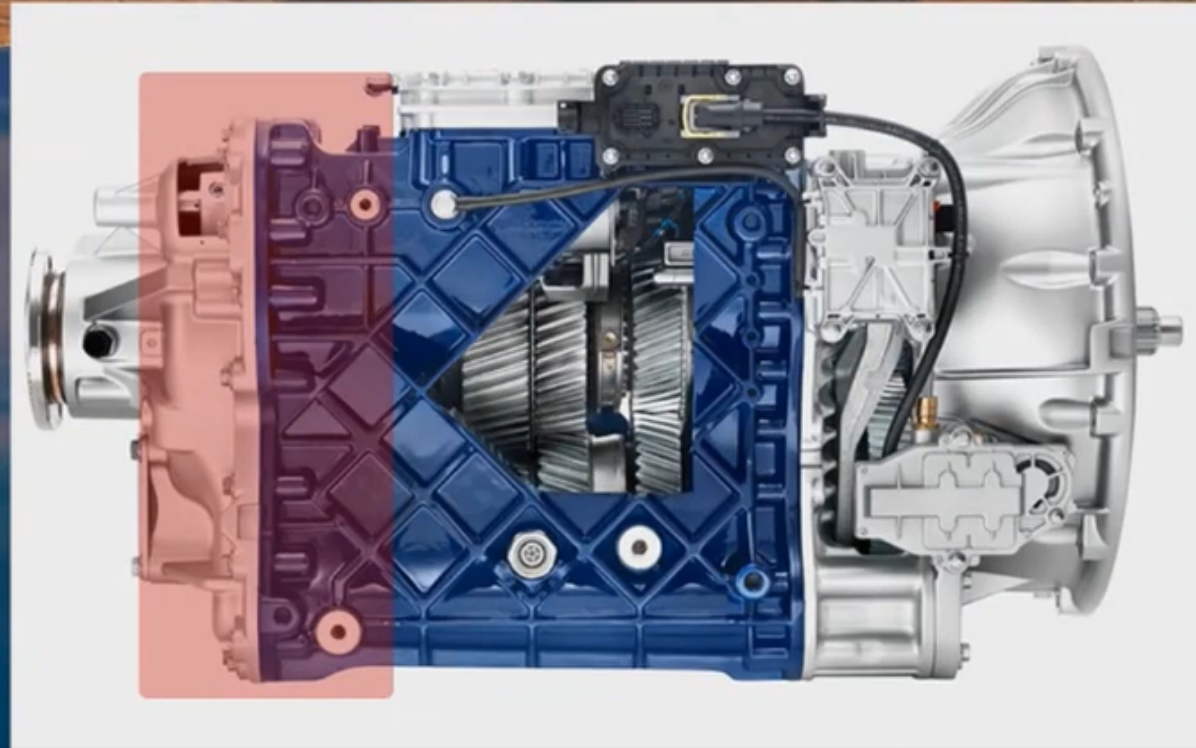


- Monitoring & Traceability (cyber-physical networks)

VOLVO

INDUSTRY 4.0 - VOLVO SMART FACTORY - VSF CONTEXT

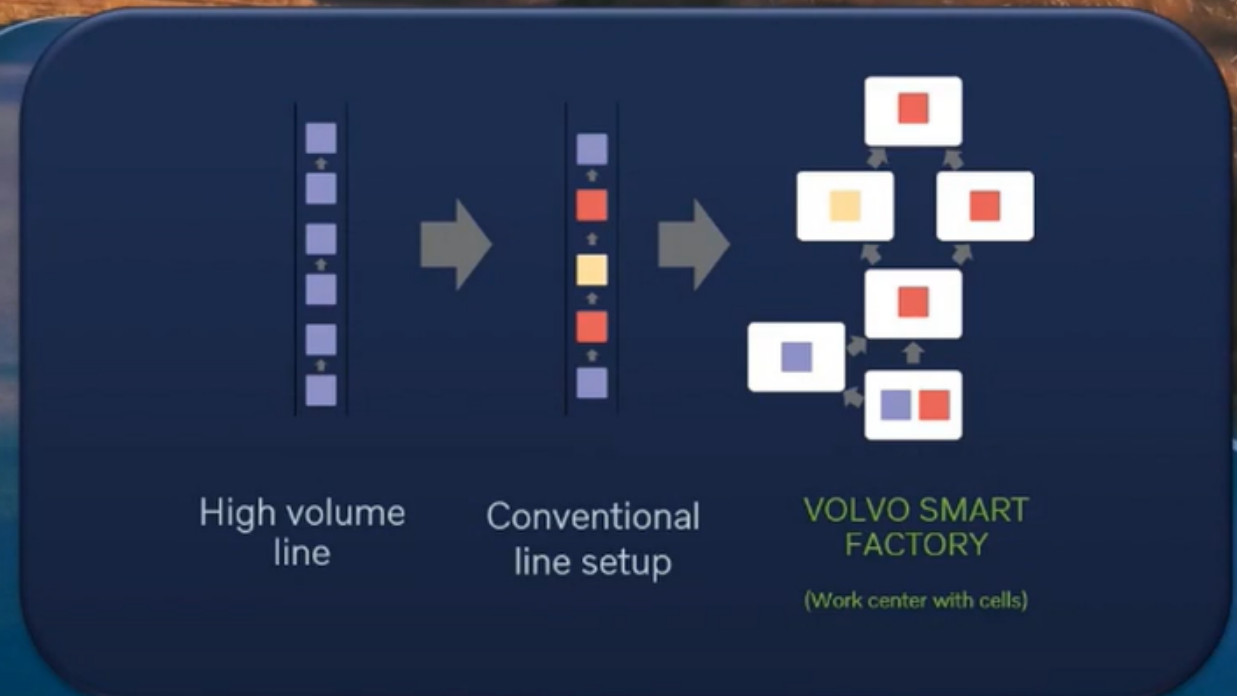
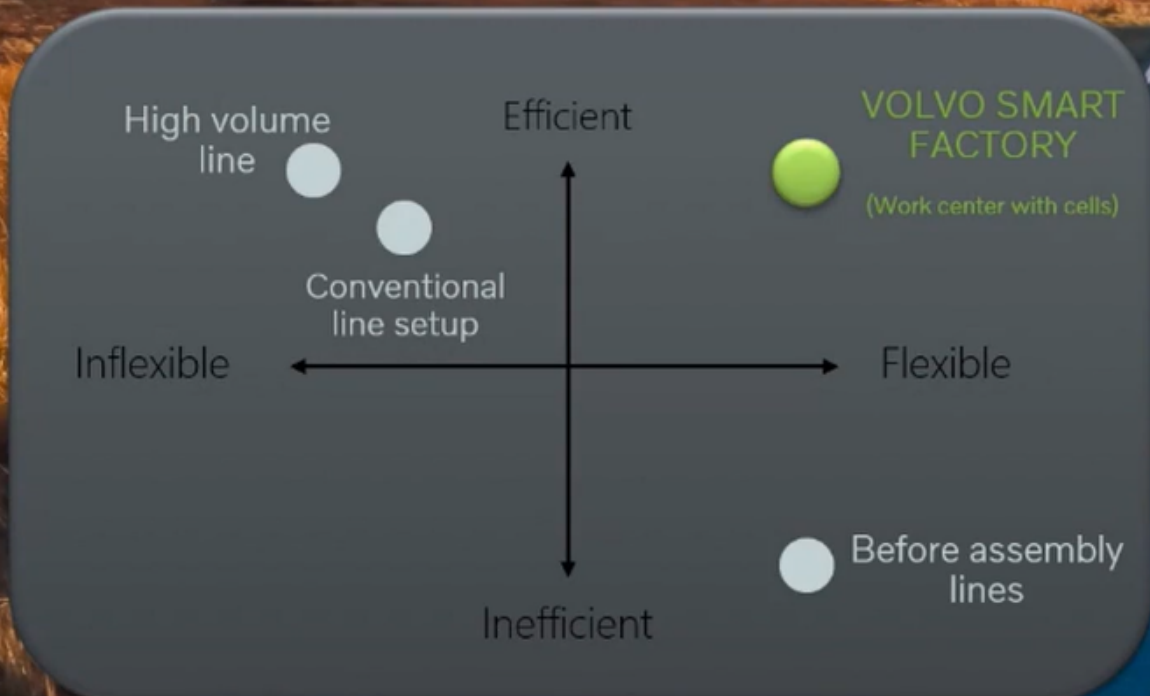
TARGET :
215 000 units/year



INDUSTRY 4.0 - VOLVO SMART FACTORY - VSF CONCEPT



Flexibility (asynchronous/agile manufacturing)



INDUSTRY 4.0 - VOLVO SMART FACTORY - VSF CONCEPT



Reliability (equipment availability)

- Redundance of critical equipment
- Predictive Maintenance



Performance (OLE : Overall Labor Effectiveness)

- Autonomous production for : transport (AGV), quality inspection, tools management



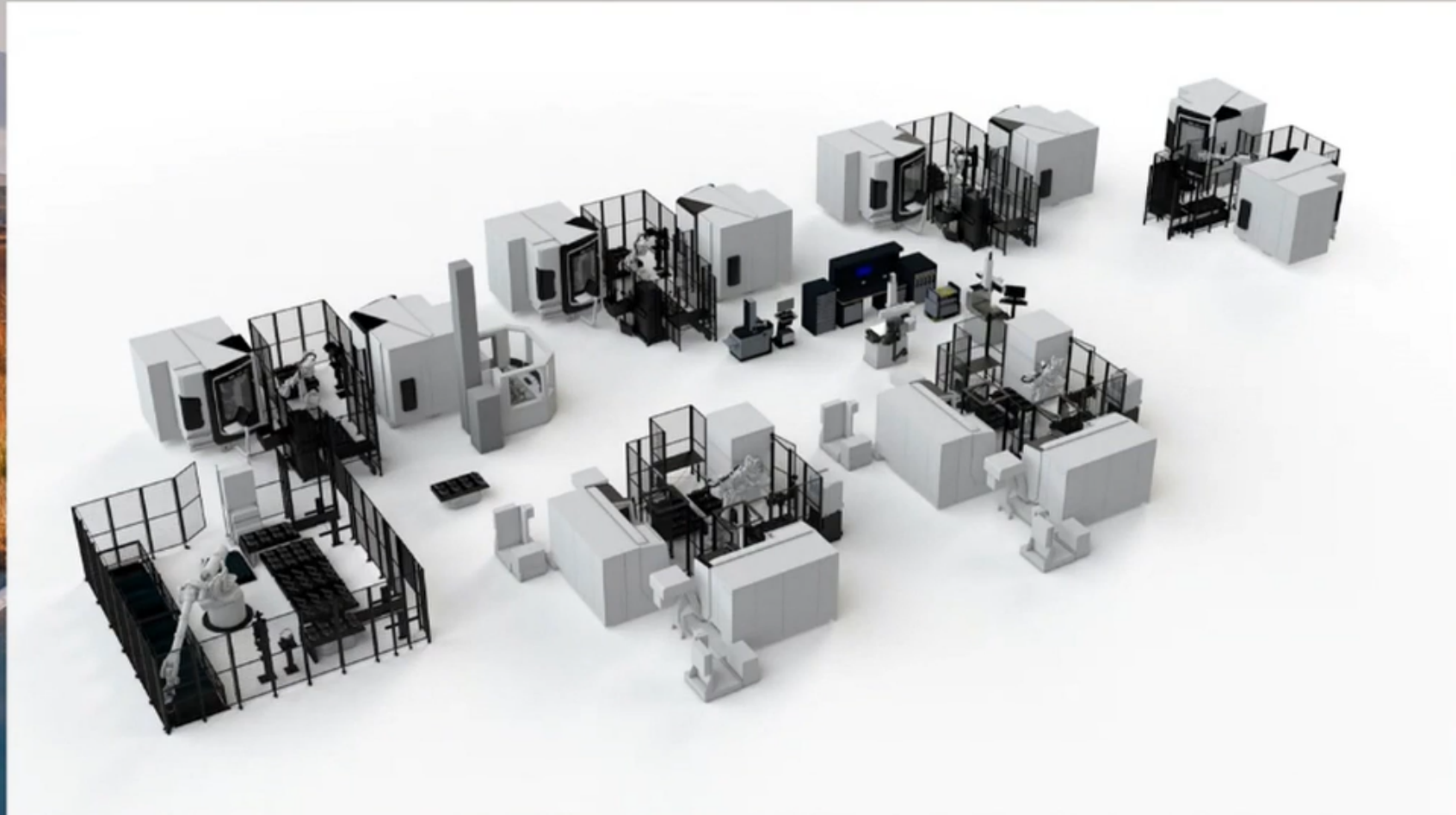
Monitoring & Traceability (cyber-physical networks)

- Interconnection of all equipment (Edge computers and an IoT platform)

INDUSTRY 4.0 - VOLVO SMART FACTORY - VSF IMPLEMENTATION

A work center
with 8 cells :

- 1 repacking cell
- 2 turning cells
- 4 skiving cells
- 1 measurement cell



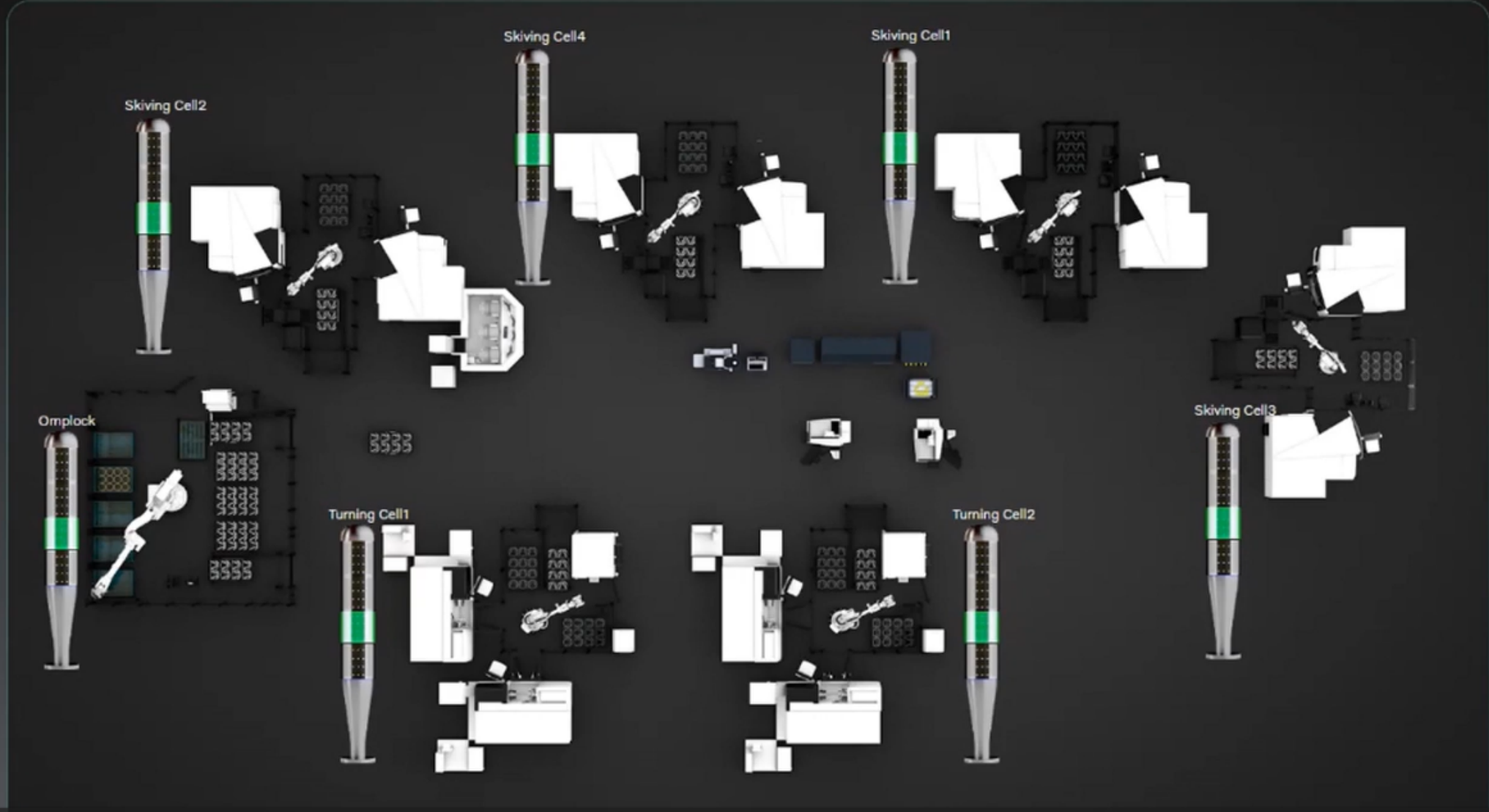
INDUSTRY 4.0 - VOLVO SMART FACTORY - VSF IMPLEMENTATION

7 autonomous vehicles :

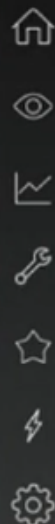
- 4 AMR
- 1 AMR for Measuring
- 2 AGT



Total Traceability Repack Turning Cell1 Turning Cell2 Skiving Cell1 Skiving Cell2 Skiving Cell3 Skiving Cell4



Total Traceability **Repack** Turning Cell1 Turning Cell2 Skiving Cell1 Skiving Cell2 Skiving Cell3 Skiving Cell4



SR03_1

23853922-79-SR03
LotID:
ChargeCode:
PartNo: **23853922**
Items in Lot: 83

SR03_2

23853922-79-SR03
LotID: **0**
ChargeCode: **M-202304**
PartNo: **1048030**
Items in Lot: **88**

SR03_3

23853922-79-SR03
LotID: **0**
ChargeCode: **M-202304**
PartNo: **1048030**
Items in Lot: **31**

SR03_4

LotID:
ChargeCode:
PartNo:

SR03_5

LotID:
ChargeCode:
PartNo:

SR03_6

LotID:
ChargeCode:
PartNo:



Last batch

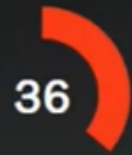
Last hour

Last 8 hours

Last day

Last week

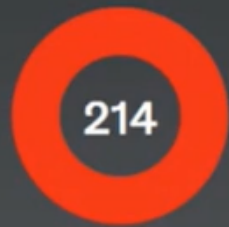
OLE (%)



Number of parts produced
4511

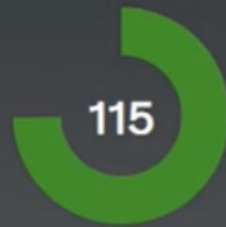
CT (in seconds)

23574694



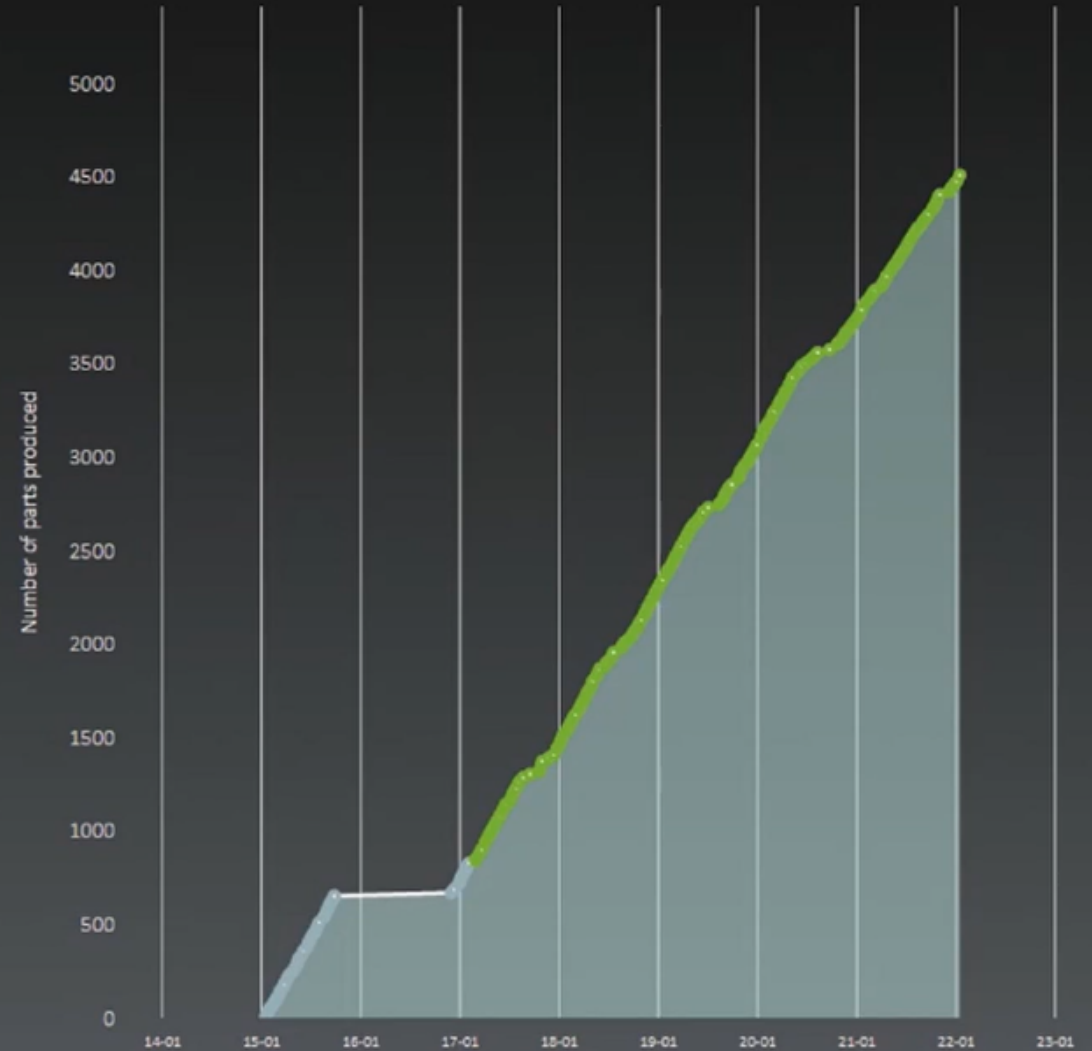
Theoretical CT : 77

23853922



Theoretical CT : 77

Last day



INDUSTRY 4.0 - VOLVO SMART FACTORY - VSF RESULTS & NEXT STEPS

- RESULTS -



- ✓ High performances → Target of 215k parts/year
- ✓ Flexible → Able to produce different types of Sync rings
- ✓ Reliable → “Robust and simple to maintain and upgrade”
- ✓ Data-driven → Real-time monitored and data centrally stored

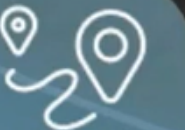
INDUSTRY 4.0 - VOLVO SMART FACTORY - VSF RESULTS & NEXT STEPS

- RESULTS -



- ✓ High performances → Target of 215k parts/year
- ✓ Flexible → Able to produce different types of Sync rings
- ✓ Reliable → “Robust and simple to maintain and upgrade”
- ✓ Data-driven → Real-time monitored and data centrally stored

- NEXT STEPS -



- ✓ Enhancements of the existing line (AMR tracks optimization, etc.)
- ✓ Build new assembly lines (little by little)

The long-term target is to have all Volvo factories (144)
in “Industry 4.0 mode”

INDUSTRY 4.0 – VOLVO SMART FACTORY – KEY TAKEAWAYS



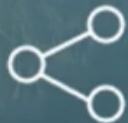
- **AGILITY** / More flexible to accelerate response to customer needs



- Increased **EFFICIENCY** in Production



- Better **QUALITY** Assurance



- More potential for **INNOVATION**



GLOBAL INSTITUTE FOR
DIGITAL COMPETITIVENESS

TECHNOLOGY FOR INCREASE EFFICENCY



Just one goal, Create value with technology.

Through 5 different specific strategies:

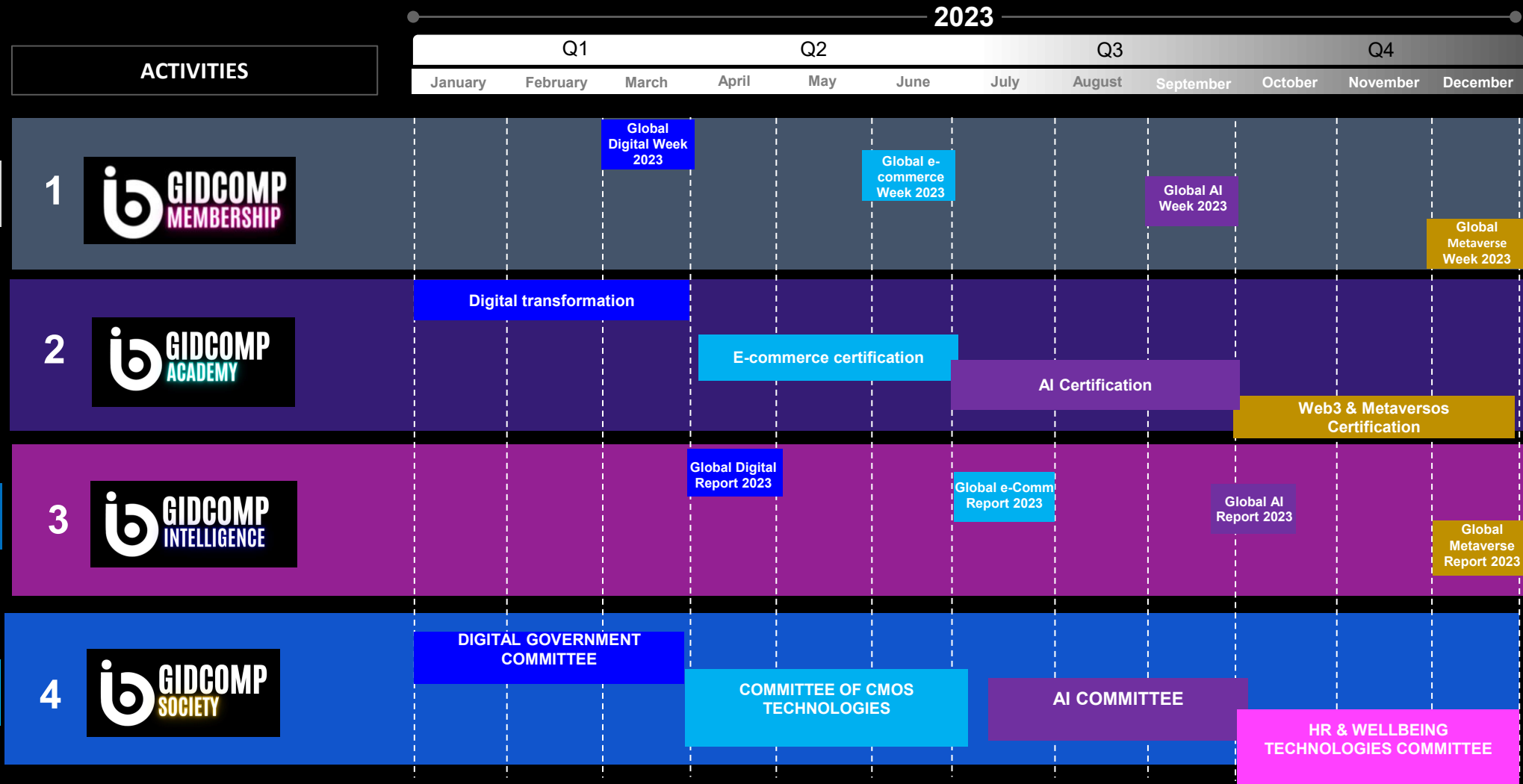
- 1** Spreading and encouraging the use of technologies to increase the efficiency of organizations from all over the world
- 2** Connecting organizations and executives to create more value, sell more in an omnichannel, and geopolitically fragmented world.
- 3** Work together with authorities and institutions 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



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

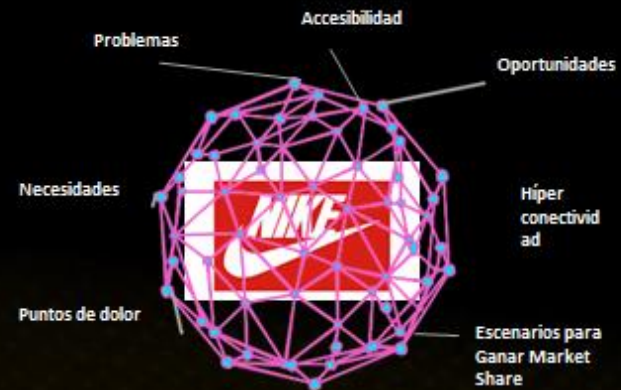
1 VIRTUAL STORES – JONATHAN MÁSMELA, CEO DE LA COLONIA

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

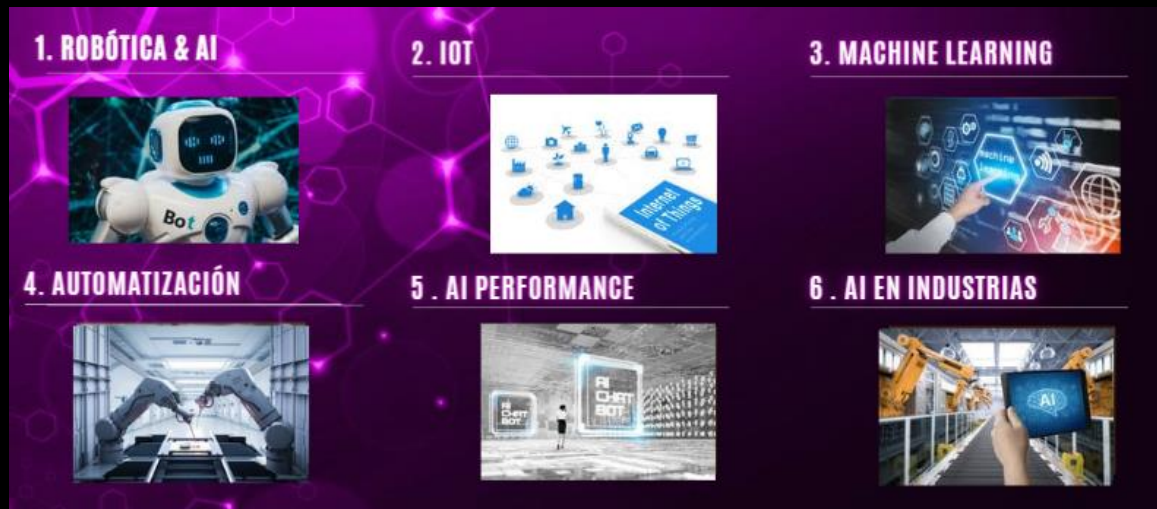
ARTIFICIAL INTELLIGENCE & DISRUPTIVE TECHNOLOGIES

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:

The infographic features a central logo for 'Comité de ONGs & RSC' with the 'GLOBAL INSTITUTE FOR DIGITAL COMPETITIVENESS' logo below it. To the right, four numbered themes are presented in a grid:

- 1. FORTALECIMIENTO DE ONGS: Accompanied by an image of a person in a suit with a lightbulb containing the letters 'ONG'.
- 2. LUCHA CONTRA EL CAMBIO CLIMATICO: Accompanied by an image of a tree in a landscape with a cloudy sky.
- 3. ACCESO A LA EDUCACIÓN DIGITAL: Accompanied by an image of a hand holding a smartphone with a VPN icon.
- 4. ADICIÓN A LA TECNOLOGÍA: Accompanied by an image of a hand holding a smartphone.



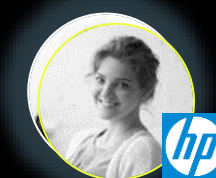
KELLY DUQUE
DIRECTOR OF PROJECTS AND PUBLIC RELATIONS
ONGs & CSR GIDCOMP VP



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

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



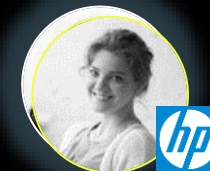
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JOSÉ QUESADA
FOUNDER WORLD COMPLIANCE FORUM
TECH & COMPLIANCE GIDCOMP VP



MONICA LÓPEZ
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
TECHNOLOGY TRENDS		
Newsletter technology cases	x	x
Free transmission of our festivals	x	X
Short version of the studies	x	x
NETWORKING, ALLIANCES AND BRAND EXPOSURE		
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
PRICE	FREE	500 – 4,000 USD
		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 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
be.competitive@gidcomp.org

