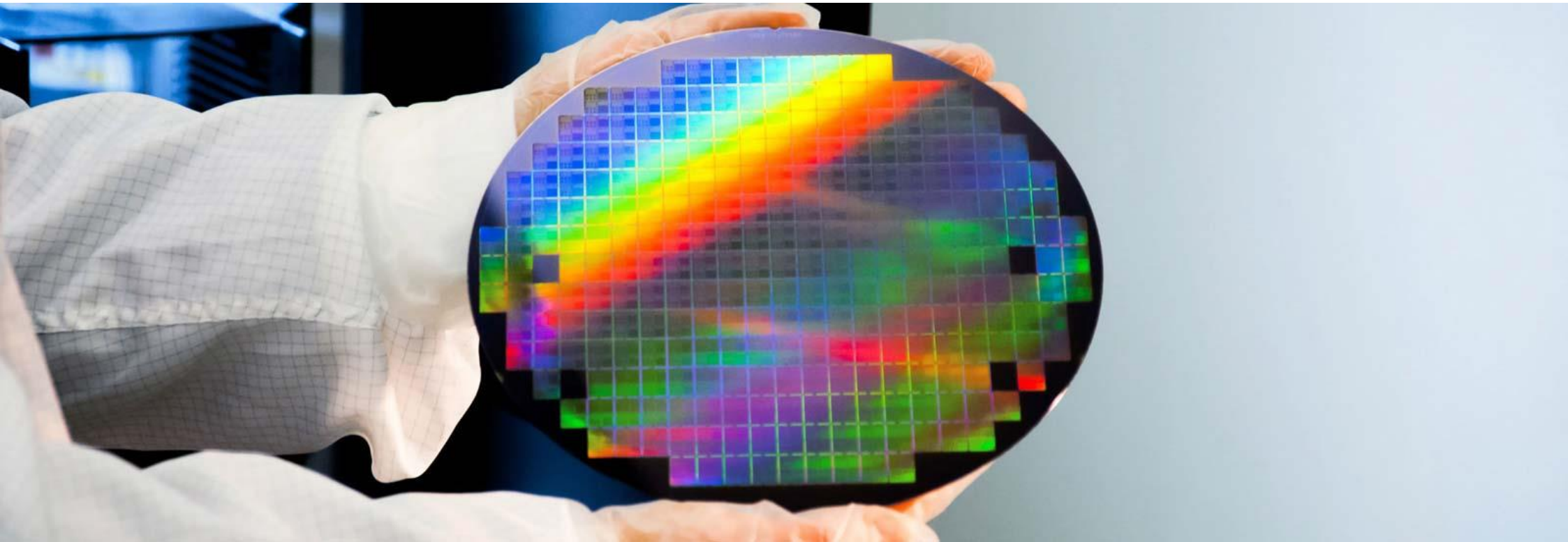




CONFIDENTIAL



# International Cooperation On Semiconductors

Grenoble, 26 – 28 April

# Aledia at a glance

## Private & Public investors



**Market size > \$120 Mds/an**

(51Mds\$ Smart phone / 45Mds\$ TV / 11Mds\$ PC / 6Mds\$ Tablet / 6 Mds\$ ARVR)

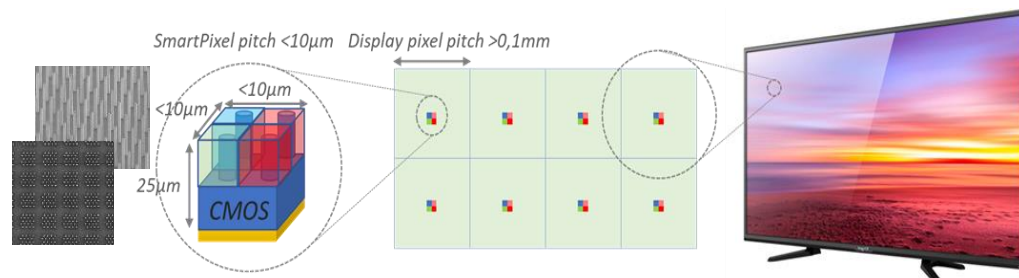
## Aledia focus on display market



**220 p**

Largest team in the world on nanowire)

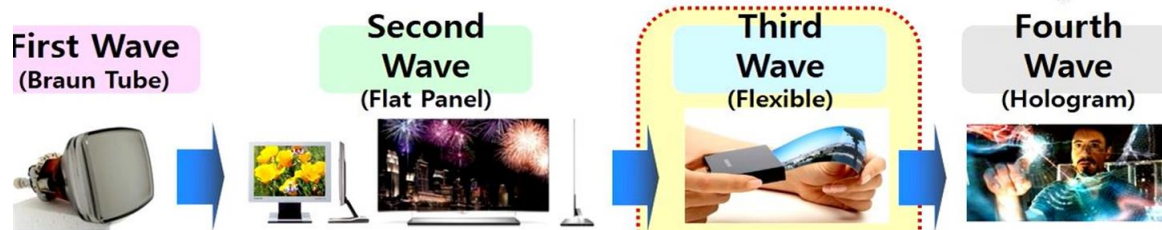
## Breakthrough technology of micro-LED on silicon based on 3D GaN nanowires



**200 patent families & Leti exclusive licence**

(Aledia n°1 in France for filing patent - FORBES study)

## Et de se positionner sur les prochaines vagues de display



**collaborations with major display players**

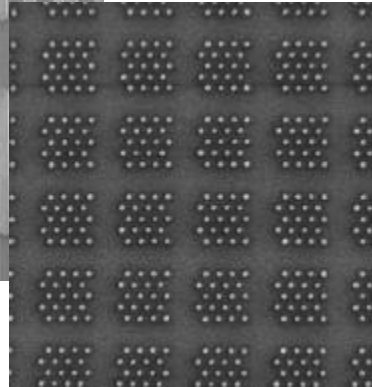
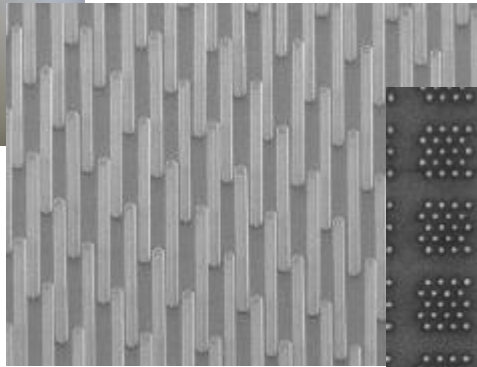
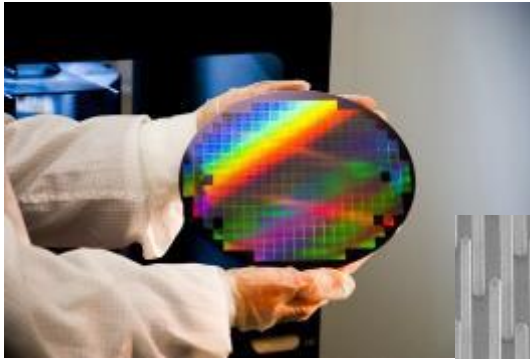


**R&D site of 4000m<sup>2</sup>  
Production site of 50.000m<sup>2</sup>  
Delivered T2-2023**

# Aledia:

## Bringing Advanced GaN-on-Silicon Technologies To The World Of Displays

### Nanowire MicroLEDs on 8-12" Silicon



Battery-life increase

Cost reduction



Brightness increase

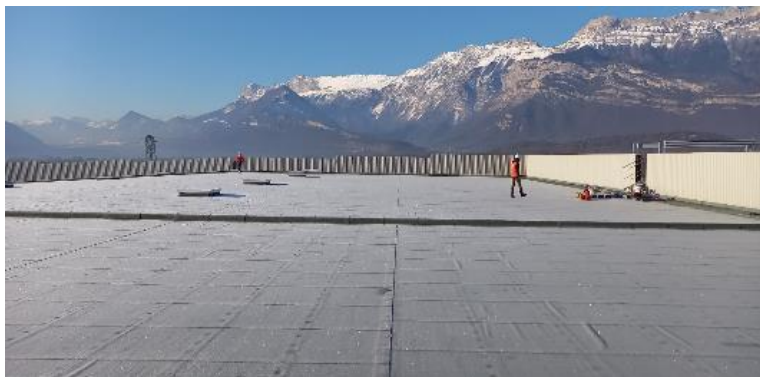


- Brighter, more efficient (longer battery life)
- Electronics integration for totally new display concepts
- Native-RGB monolithic integration on one chip with only GaN



- >200 Patent families filed or exclusively licensed
- ISO 9001 Certified

# The 1st Manufacturing building will be ready mid 2023.



Epitaxy Manufacturing Fab (ALEDIA FA1 – Grenoble – France)



# Why microLed ?

# Emerging Consensus From All Major Display Players That MicroLEDs Are The Next Display Technology...

## • Why Micro LED?

: High Brightness / High efficiency / High color gamut / High CR / Long life time / Fast response



# GAFAM invest heavily in microLED technology

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Google bought raxium for \$1Bn in March 2022 for R,G,B microLED technology



According Yole 2022 report Apple has spent more than \$2Bn to set up a microLED supply chain

facebook has gone meta & focuses on Metaverse



# Why Eic accelerator ?



# Eic single instrument for industrial scale-up

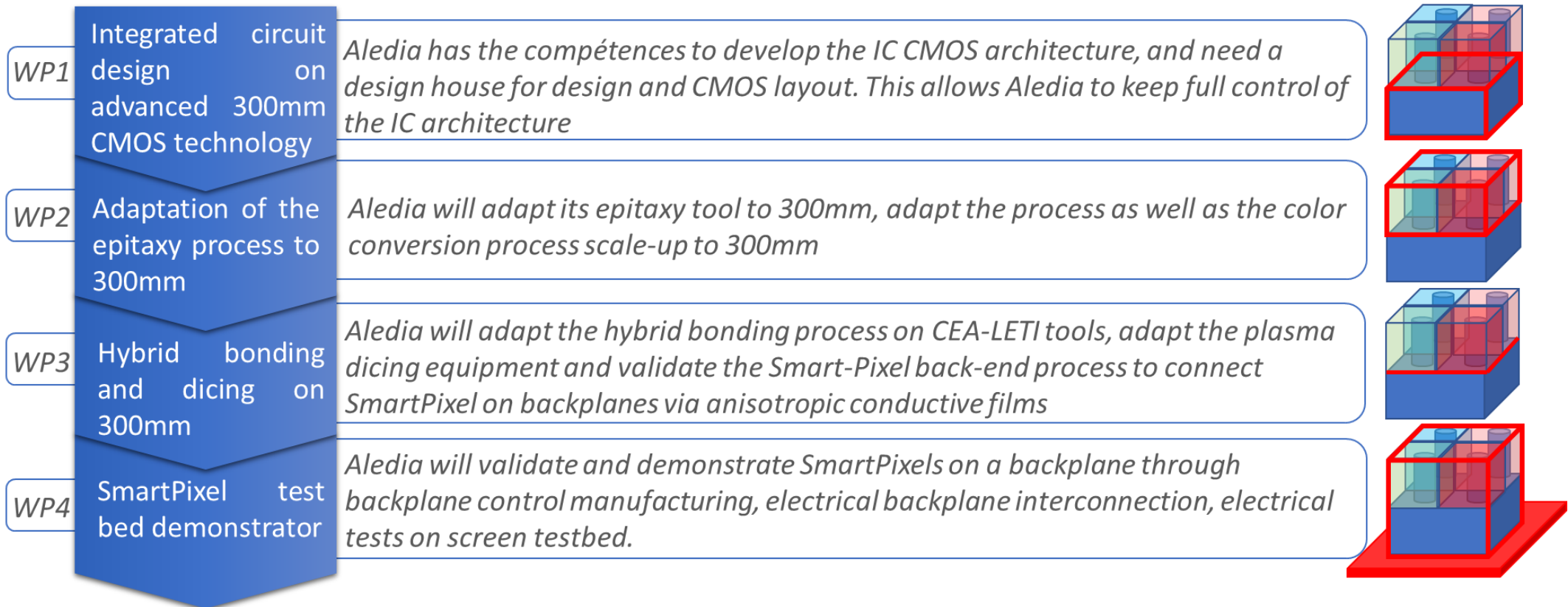
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1. Individual R&D sponsoring for breakthrough innovation
2. Equity for leverage effect on financing rounds



# EIC pilot phase 2019 : Breakthrough innovation SPEED : Smart Pixel (300mm) Emitters for Display

**Duration : 24 months, Grant : 2,5M€, Equity : 15M€**



**Breakthrough epitaxy 300mm GaN/Si  
Project ended february 2023**

# Aledia funding History

## Key milestones and leverage round D



Leti spinoff first financing April 2012  
First nanowire LED

Refocusing on the display market

Investment of 3 majors  
Launch of laptop/phone screen development

Echirolles site launch

Développements avec 4 clients

Industrial site selection



Lighting market focus

Focus on the display market

- SUPER NOVA INVEST
- BRAEMAR ENERGY VENTURES
- SOFINNOVA PARTNERS
- DEAMETER

- Valeo
- IKEA
- bpi france

CEA-Leti partnership



- GAFA
- Major des smartphones

**EIC leverage Effect round D**

### Funding stages

2012-2014  
Series A:  
€12M

2015  
Series B:  
€25M

2018-19  
Series C:  
€52M

Sept 2020-Sept 21  
Series D:  
€140M  
(€80M Sept 2020)



# Eic accelerator Leverage effect

# SPEED : 1<sup>st</sup> gen blue microLed scaleup

## MARKET

Large displays made with TFT backplanes and chip-transfer:

Sell wafers of pixels to largest display companies



TV



Laptop



Tablet



Smartphone



Smartwatch

**eic + IPCEI ME-CT sponsoring**

## 2<sup>nd</sup> gen microLed R,G,B

Sell complete displays to end-users



VR



AR/MR

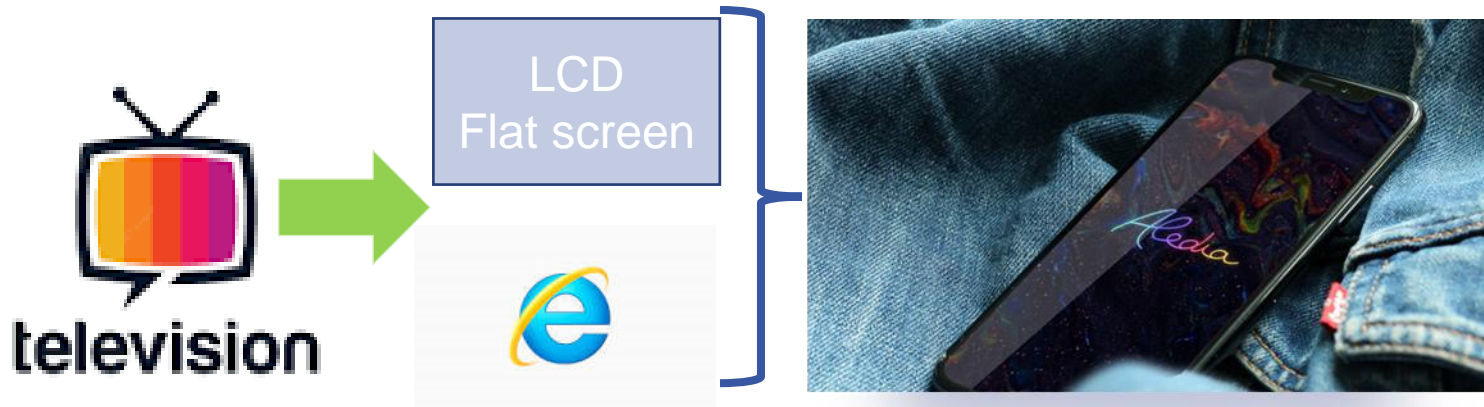
Single-chip integrated microdisplays:

## MANUFACTURING

- Only grow the nanowires at Aledia (Epitaxy: key IP)
- Outsource the rest to silicon foundries
- Control the entire supply chain
- **Quasi-fabless business model compatible with startup economics (foundries do 75% of investment, huge volumes possible)**

↓	BASE WAFER	MICROELECTRONICS FOUNDRY
↓	<b>EPITAXY</b>	<b>ALEDIA</b>
↓	CHIP PROCESSING	MICROELECTRONICS FOUNDRY
↓	CMOS INTEGRATION	MICROELECTRONICS FOUNDRY
↓	BACK-END TESTING	MICROELECTRONICS FOUNDRY OR CONTRACT ASSEMBLY HOUSE
↓	PANEL ASSEMBLY	DISPLAY PARTNER(S) (WHERE NEEDED)

# Next Disruption for citizens



Internet + LCD technology  
= **Smartphone**  
revolution



AI + RGB microLED  
= **Metavers**  
revolution

# Take away for eic submission

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**Fundraising round in progress**



**Breakthrough innovation for wide market**



**Be accompanied by counsel**



**Sponsoring**



**La Région**

Auvergne-Rhône-Alpes

**ENTREPRISES**

**bpi**france