Soitec Capital Market Day

Capturing Growth

Paris, France
December 4, 2017

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Agenda

1. **CEO Introduction**
2. Communication & Power
3. Digital Electronics

Q&A session

4. Industrial Operations
5. Financials
6. CEO Closing Remarks

Q&A session

Paul Boudre

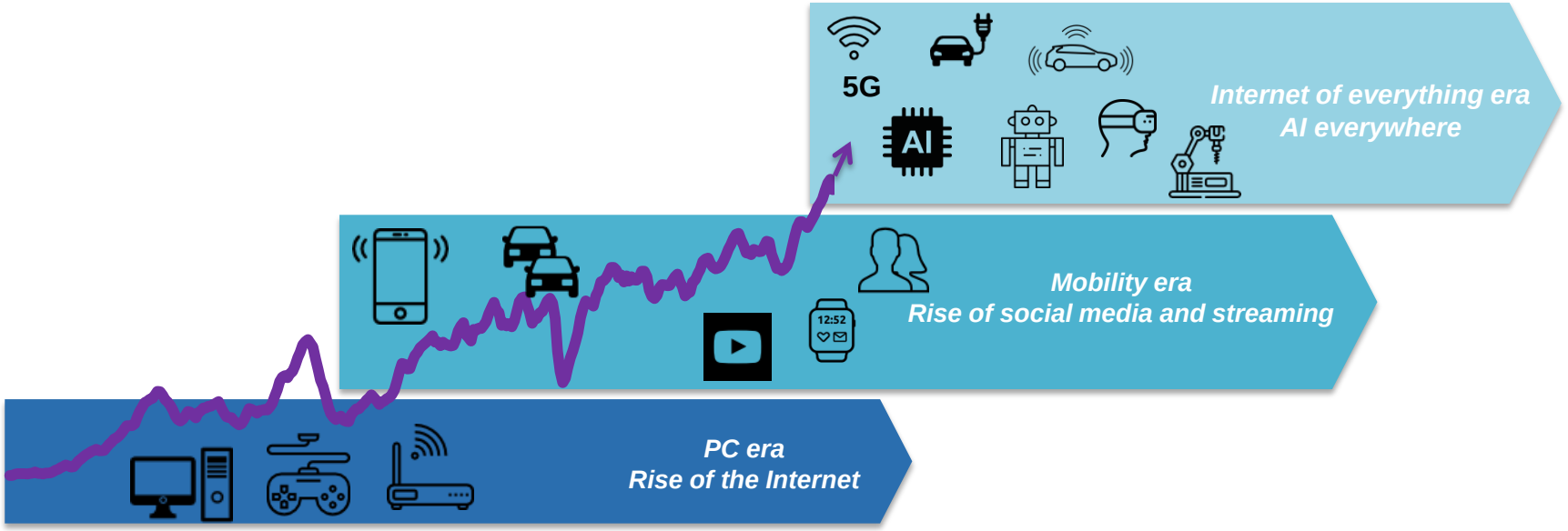
Chief Executive Officer

Executive Summary

1. Significant growth ahead for the semiconductors industry driven by multiple applications
2. Soitec uniquely positioned to capture the various components of this growth
3. Soitec footprint to rise significantly in fast growing high-value markets
4. Outlook for 2022

Semiconductors sales now driven by multiple markets

1990	2000	2010	2020	2030	
~50 B$	~200 B$	~300 B$	~500 B$	~1 T$?	*Global semiconductors sales*



Sources: SIA/WSTS Monthly Sales, Sept. 2017. Soitec.

Semiconductor-driven innovation across all industries

Mobility enhanced with new device features and 5G


Autonomous and e-vehicles to set new standards



Artificial intelligence already in our everyday life



Augmented & Virtual reality, more than a gadget



Soitec strategic position in the electronic value chain

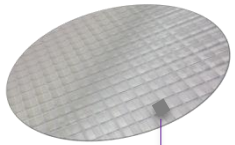
BULK WAFERS

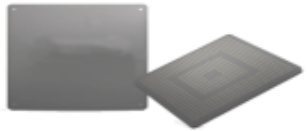
ENGINEERED SUBSTRATES

FOUNDRIES

CHIP MAKERS & FABLESS

ELECTRONIC GOODS





Integrated Circuit

Innovation – Towards system platforms collaborations

Today – A global R&D network

Tomorrow – More partnerships with OEMs

Solving complex problems for the industry

2 Business Units

Digital Electronics
- FD-SOI
- Imager-SOI
- Photonics-SOI

Communication & Power
- RF-SOI
- Power-SOI
- New engineered substrates

Unique value proposition

- Longer battery life
- High reliability
- Outstanding Performance
- Optimized cost

4 strategic end markets

Smartphones

Automotive

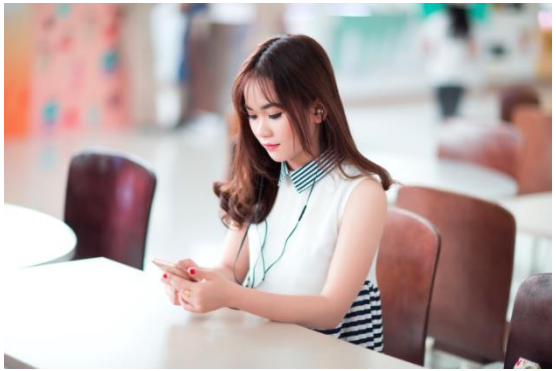
Cloud infrastructure

Internet of Things

Smartphones

Key drivers: 4G/5G, optimized computing, sensors, AI processing

~20mm² SOI footprint in 2017 → >100mm² SOI footprint in 2022



Soitec #1 market

- **More RF-SOI content**
  - 4G/LTE-advanced expansion
  - 5G introduction
- **Penetration of FD-SOI**
  - Application processors
  - Image signal processors
  - 5G transceivers
  - AI processors
- **3D sensors**
  - Near infra-red sensors
- **Opportunities to penetrate other sensors verticals**

Automotive

Key drivers: autonomous driving, electric vehicles, infotainment, connectivity

~100mm² SOI footprint in 2017 → >200mm² SOI footprint in 2022

- **More Power-SOI**
  - More electronic content per car
- **Penetration of FD-SOI**
  - Application processors
  - Radars
  - Vision processors
- **Opportunities to penetrate other sensors verticals**

Soitec #2 market

Cloud infrastructure

Key drivers: Hyperscale data centers, ethernet switching speed, 5G, autonomous driving

~80mm² SOI footprint in 2017 → >400mm² SOI footprint in 2022

Data centers enable Cloud infrastructure

› **More Silicon photonic**
  › Optical transceivers chip size to rise dramatically

› **Opportunities for FD-SOI for micro-servers**
  › Application processors

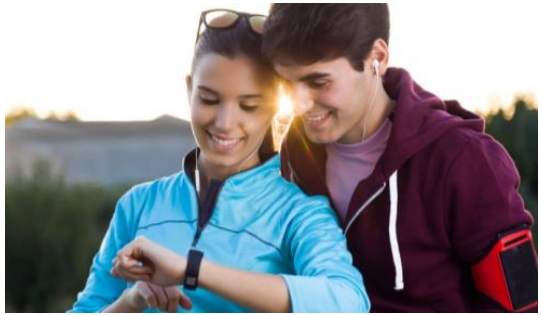
› **Opportunities to penetrate other devices based on compounds semiconductors**

Internet of Things

Key drivers: Ultra-low power, always-on applications, new form factors

<10 mm² footprint in 2017 → ~50 mm² footprint in 2022

- **Adoption of FD-SOI and RF-SOI**
  - Application processors, microcontrollers, GPS, RF front-end module
- **Opportunities for sensors**
  - Imaging, MEMS
- **Business opportunities for compounds**
  - MicroLEDs for displays

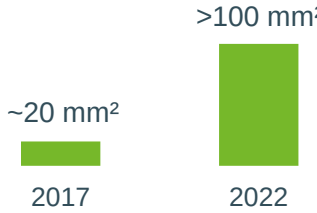


Internet of Things

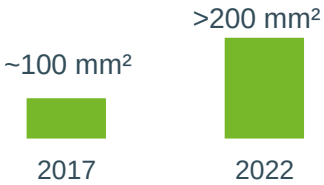
Billions of connected and smart objects

Soitec footprint to expand in every end market

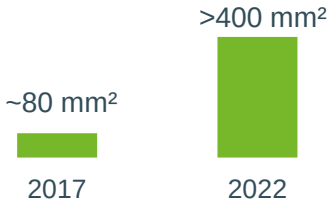
Smartphones



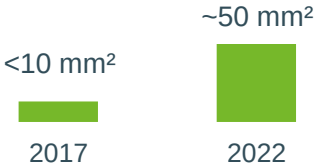
Automotive



Cloud infrastructure



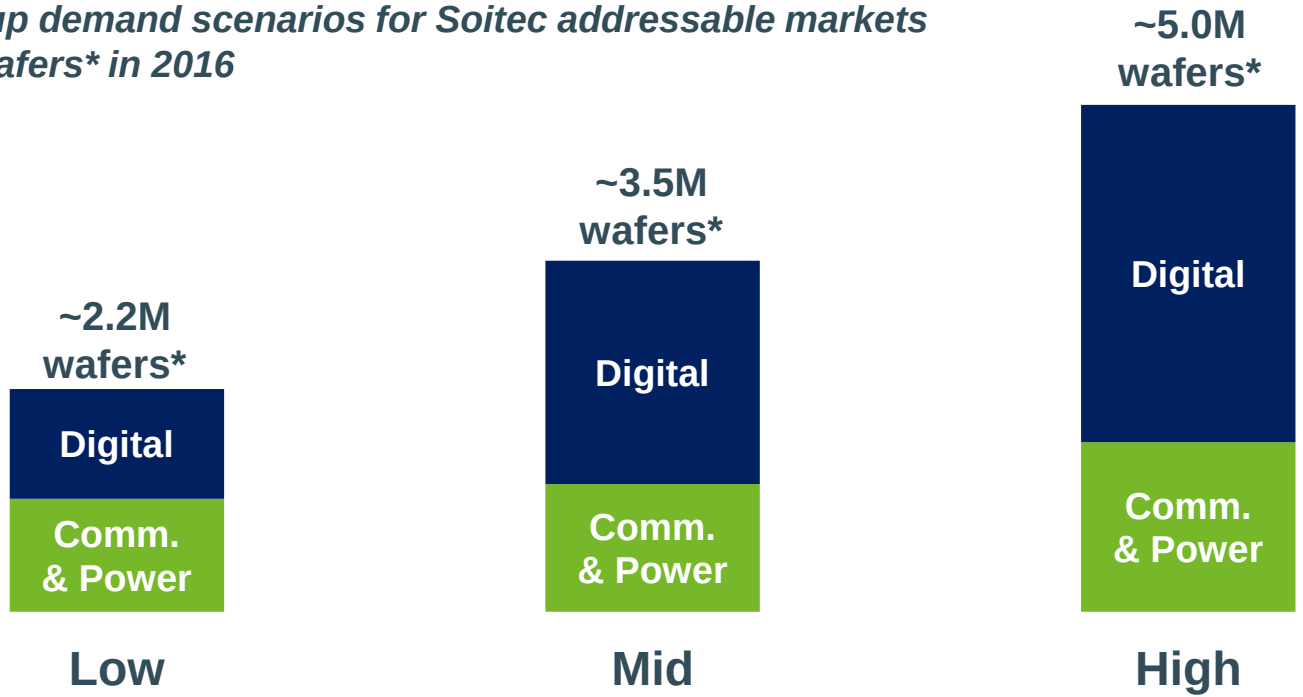
Internet of Things



Source: Soitec estimates, 2017

Outlook for 2022 - TAM to be x3 to x6 compared to 2016

Bottom-up demand scenarios for Soitec addressable markets
~ 800k wafers* in 2016



** 300mm diameter-equivalent*

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1. CEO Introduction
2. **Communication & Power**
3. Digital Electronics

Q&A session

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6. CEO Closing Remarks

Q&A session

Dr. Bernard ASPAR
EVP Communication & Power Business Unit

1. Communication & Power Business Unit at a glance
2. RF-SOI and new engineered substrates for RF
3. Power-SOI
4. Compounds semiconductors
5. 2022 Outlook

Communication & Power Business Unit



Skills

~100 people (PhDs / Engineers / Technicians)
Materials sciences, microelectronic technology, integrated circuits, sensors

Products and Technologies

RF-SOI | Power-SOI | POI | Compounds

Manufacturing

Bernin 1 | Bernin 2 | Simgui | Singapore

Smartphones

Antenna/Switch
Filters
Amplifiers

Automotive

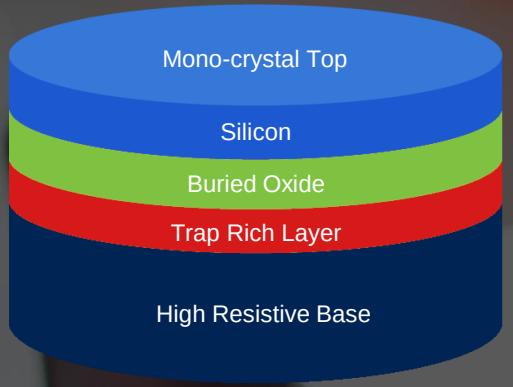
Transceivers
Gate drivers
Audio amplifiers

IoT

RF modules
Displays
Sensors

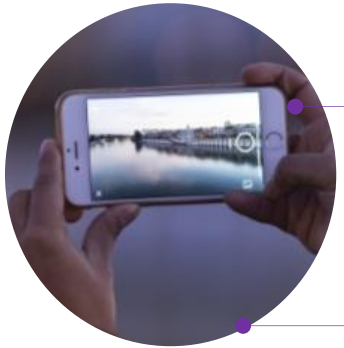
RF-SOI and new engineered substrates for RF

For high efficient mobile communication



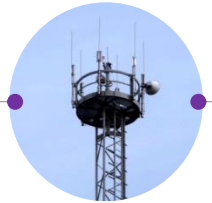
We live in a wireless connected world

Smartphones



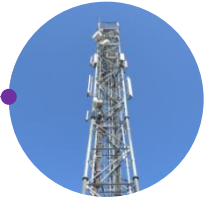
Tablets

Base Stations



Connected Car

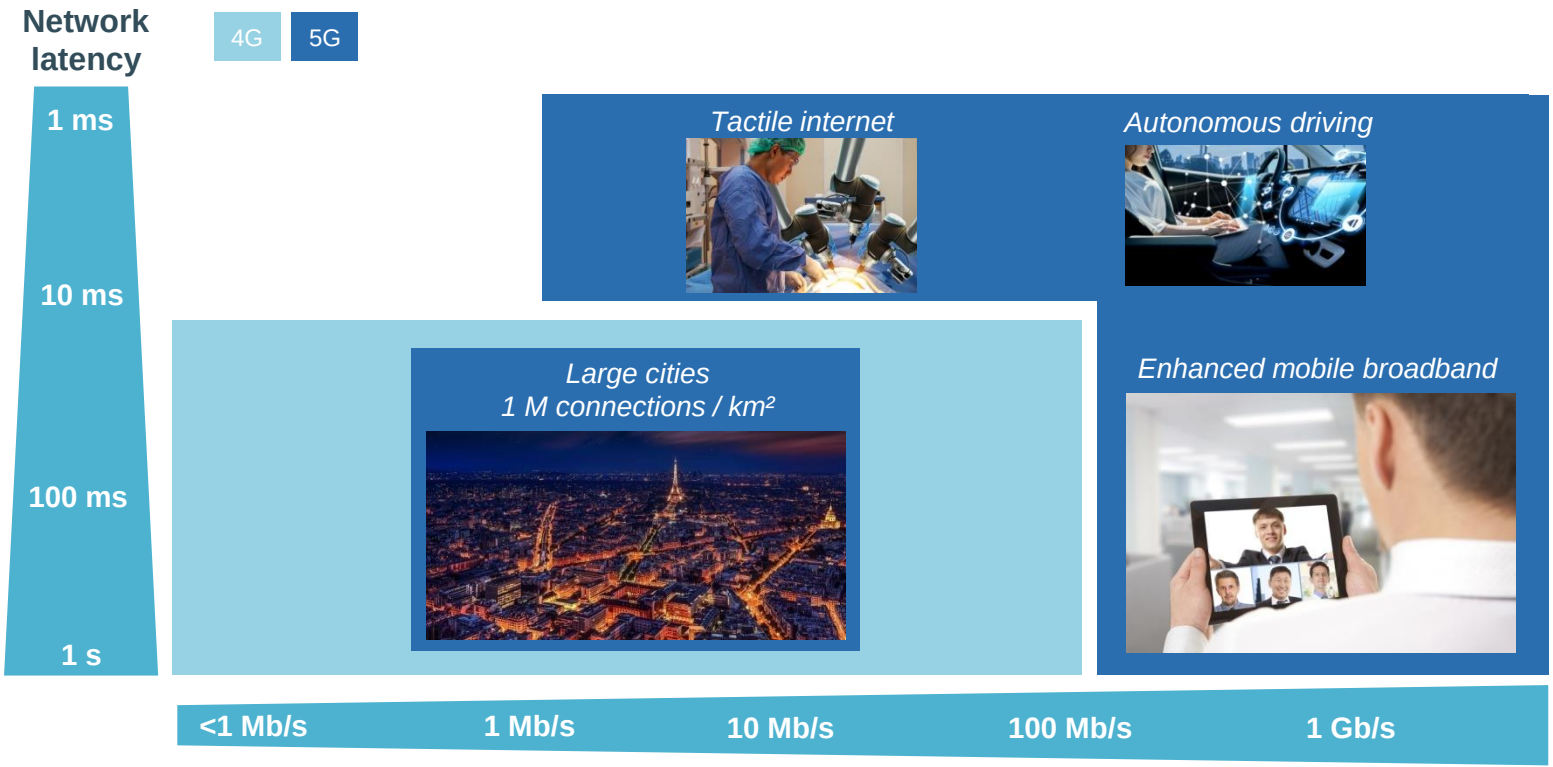
Backhaul



Wi-Fi

Internet of Things

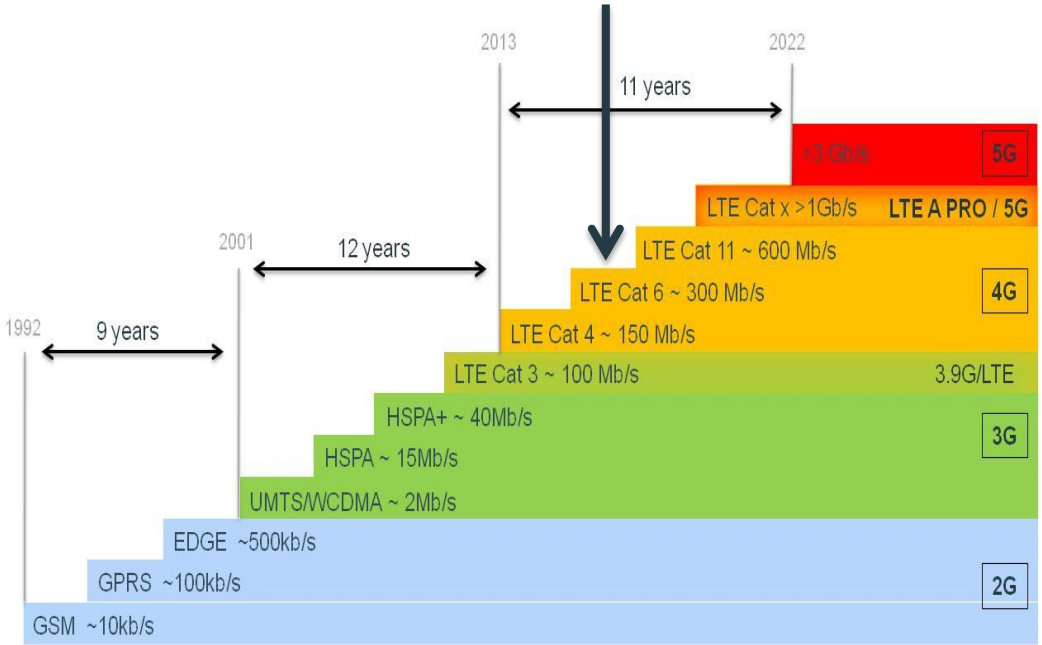
New applications require device and network evolutions

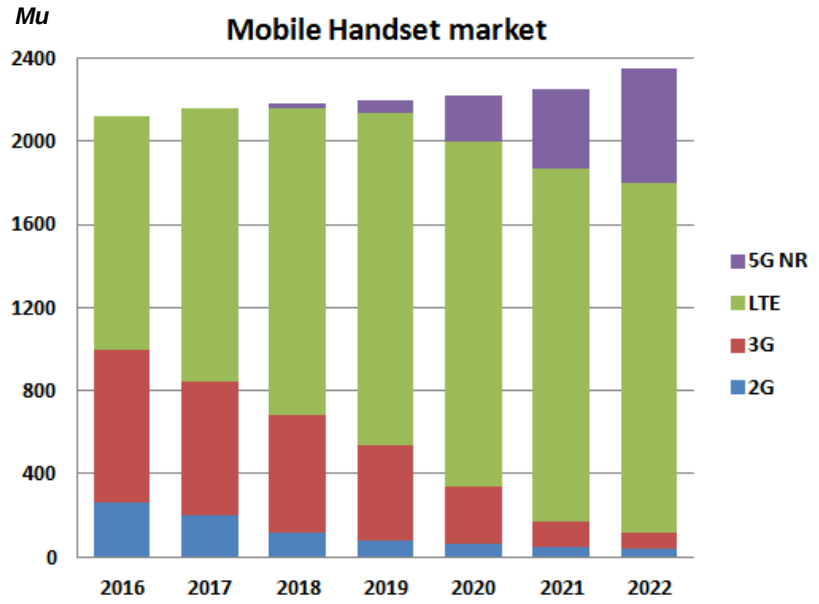


RF technology road map

4G and 5G <6Ghz is the market driver for the next 5 years

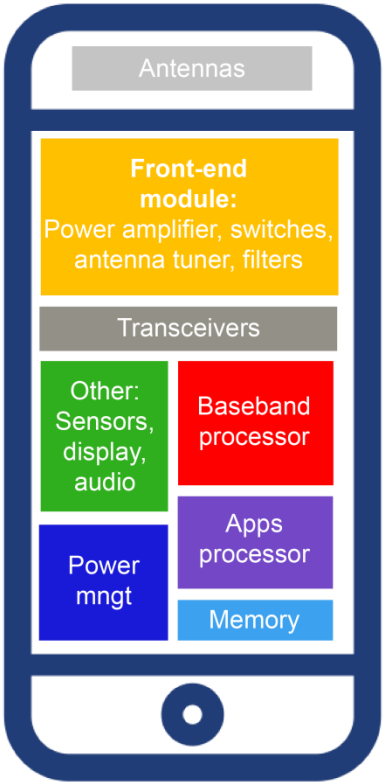
Today Market volume

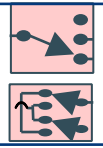
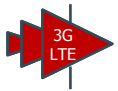




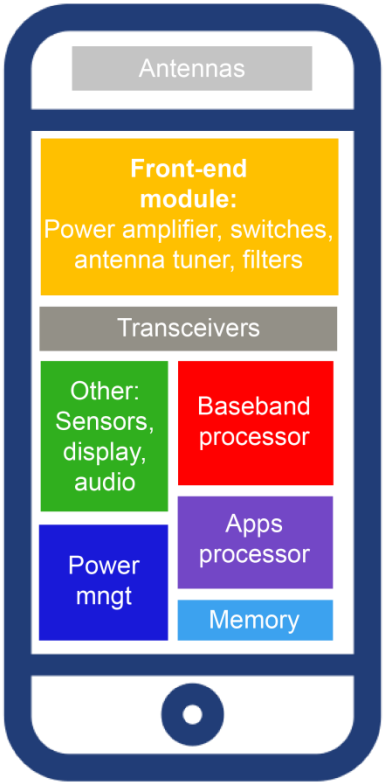
Source: Mobile Experts, July 2017

RF Front- End Module (FEM) for communication



Antenna tuner		Improves antenna performance
Switch		Connects input(s) to output(s)
Diplexer Coupler		Separates low and high frequency bands Senses transmited output power
LNA		Amplifies received signal from antenna
PA		Amplifies transmitted signal to antenna
Filters		Rejects undesired frequencies

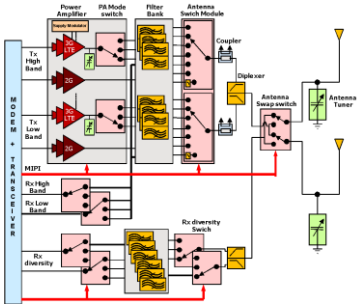
RF-SOI is the standard technology for FEM, switches, antenna tuner, etc.

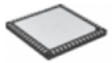


Antenna tuner		RF-SOI ✓
Switch		RF-SOI ✓ Stacking for RF-SOI ✓
Diplexer Coupler		RF-SOI ✓
LNA		RF-SOI ✓
PA	3G LTE	RF-SOI ✓
Filters		POI ✓

FEM complexity increases RF-SOI content

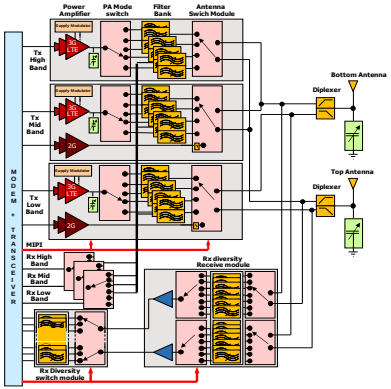
LTE
2012 (**)

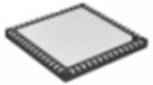




7 mm² (*)

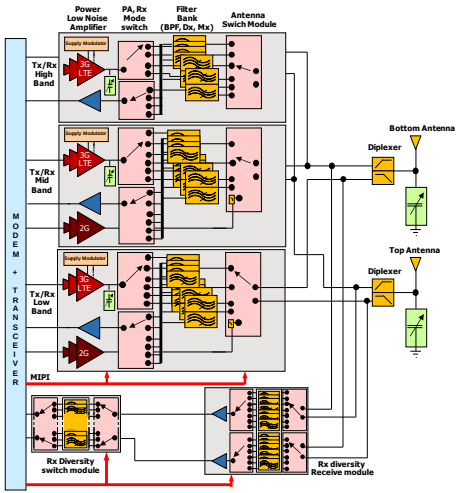
LTE Advanced
2014

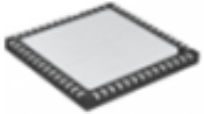




20 mm² (*)

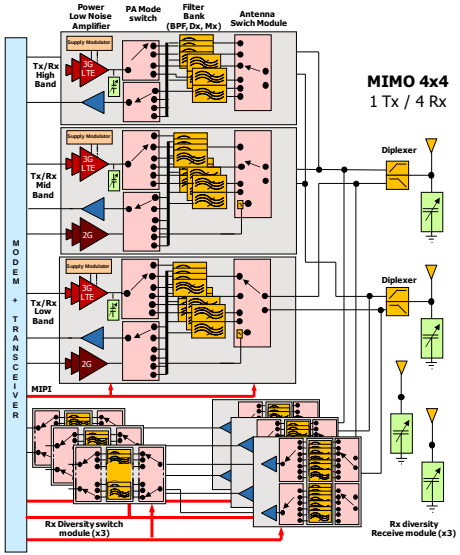
LTE Advanced PRO
2016

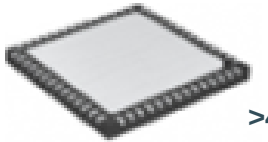




32 mm² (*)

LTE Advanced PRO 2017
5G sub <6Ghz 2019



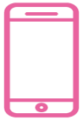


>40 mm² (*)

Source: (*) Soitec estimates (**) First introduction

Final product value is coming from solid ecosystem where substrates are the foundation

Final products



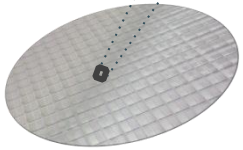
Design
Fabless

Silicon die
with millions of transistors

IC

Process
Foundries

SOI processed wafer
with multiple raw dice per wafer



Substrates

soitec

SOI substrates

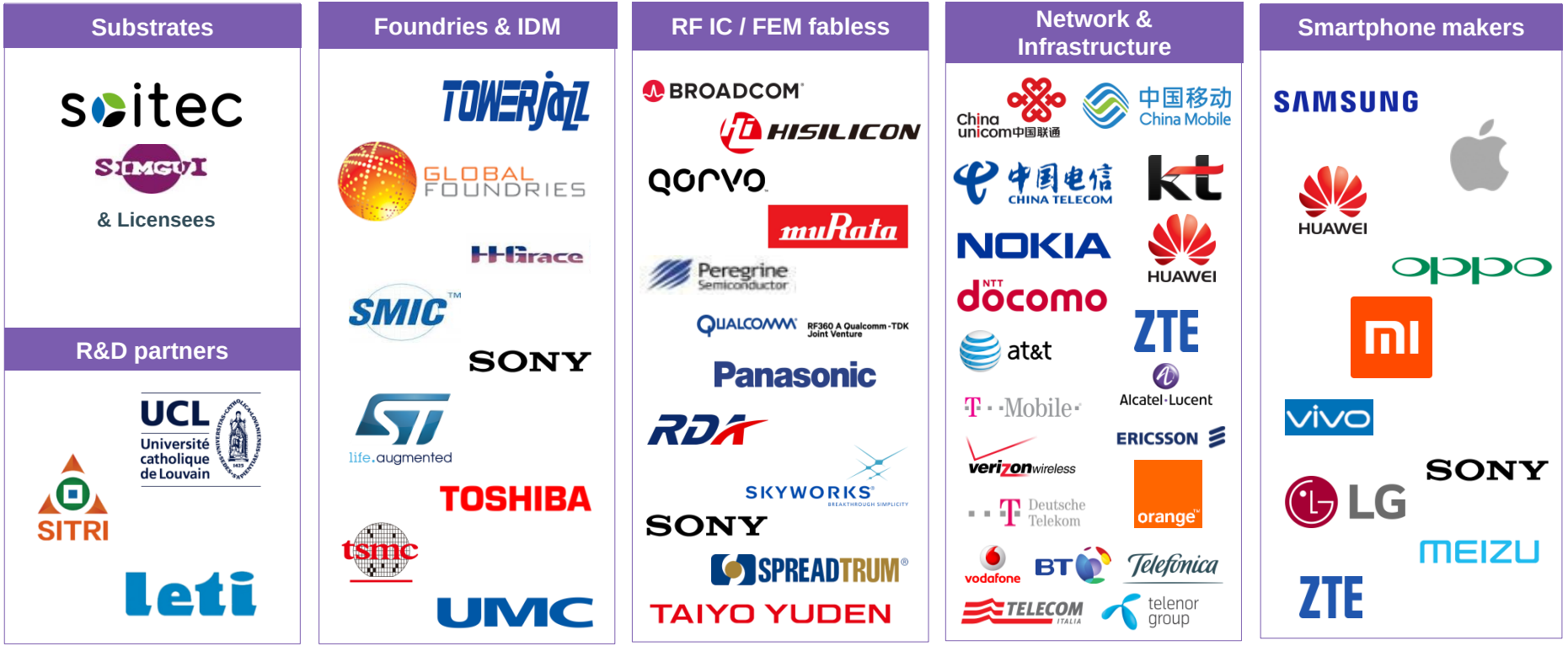
Strong interdependence Between:

Substrates
Process
Design

PERFORMANCE
COST

soitec

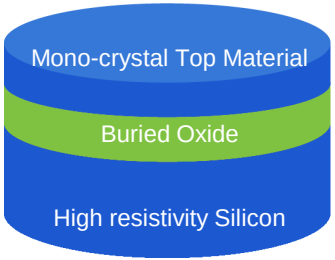
RF-SOI: a standard supported by a complete ecosystem



soitec

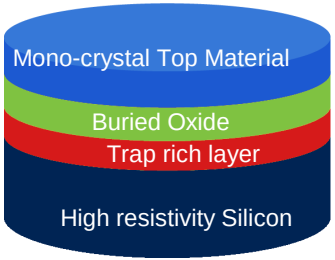
Soitec RF-SOI wafers : HRSOI & RFeSI™

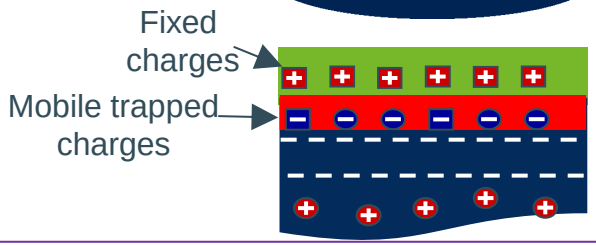
HRSOI



RFeSI
Enhanced Signal Integrity

RFeSI relies on a unique Trap Rich layer that will limit high frequency signal propagation in the substrate boosting device RF performance





Manufacturing in 200mm and 300mm

Bernin 1 | Bernin 2 | Simgui | Singapore

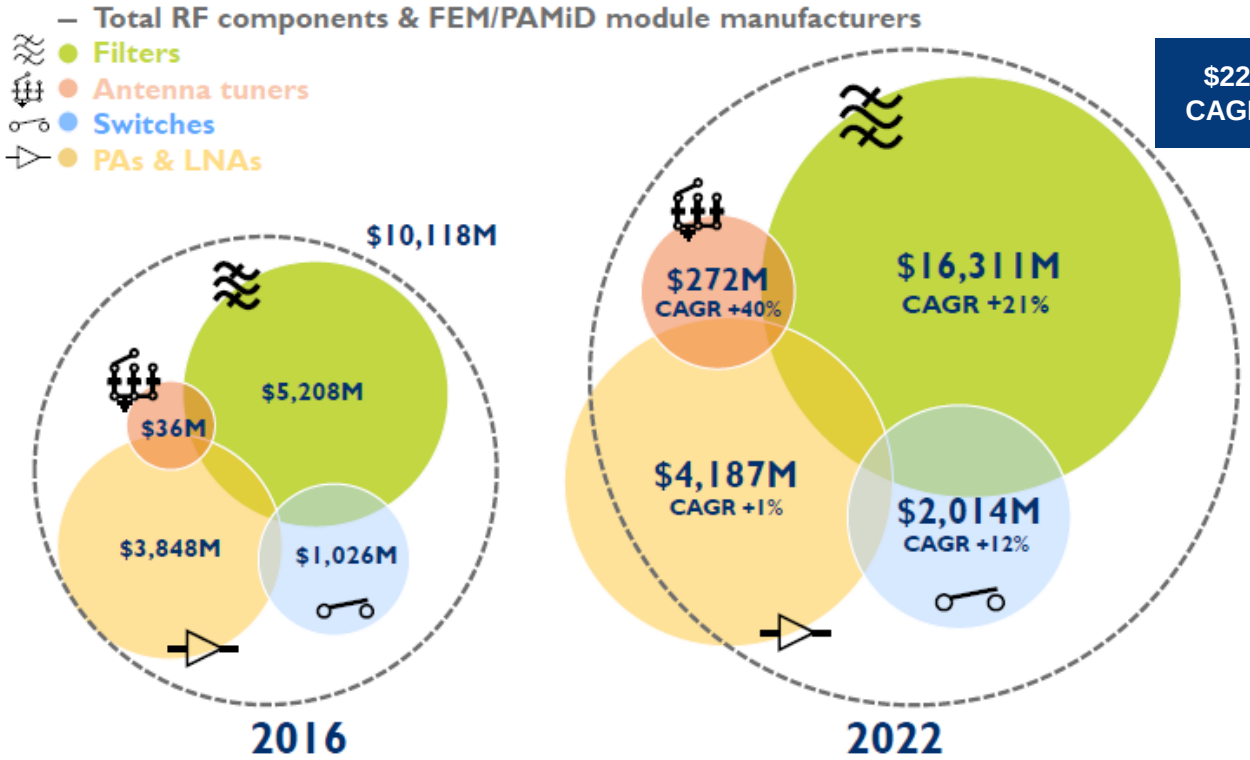
Value proposition

PERFORMANCE
- Higher Linearity
- Lower RF losses
- Lower crosstalk
- High quality passives

COST
- Lower than GaAs and MEMS
- Integration with switch, amplifiers and passives
- Available in 200/300mm

AREA
- Lower die size

RF FEM market continues to grow X2 (2016-2022)



x2 Switches

x 3 Filters

Source: Yole, March 2017

Soitec targets filters market opportunity with a new engineered substrate

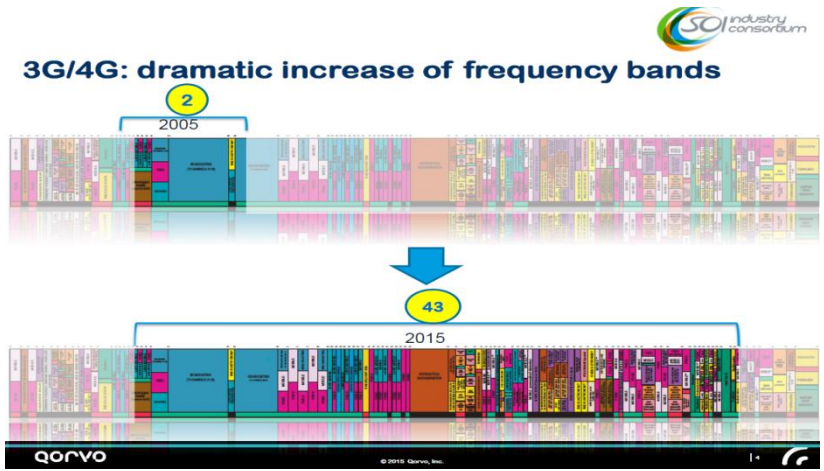
Market opportunity

› **Filters in smartphones account for ~50% of RF content ($)**

› **Stringent technical requirements for 5G**

- › Multiple band support
- › Stability over temperature
- › Higher integration
- › Higher frequencies support
- › Thinner package for more integration in phone

The # of bands challenge

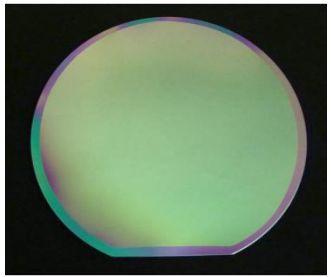


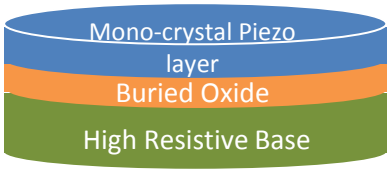
New generation of engineered substrates to address filter challenges : « Piezoelectric On Insulator »

Piezoelectric materials

STATUS

› *Crystal properties demonstrated*
› *Piezo layer demonstrated for multiple thicknesses*
› *Under evaluation by Tier #1 customers*





LTO/Si Smart Cut™ Substrate

Value proposition

PERFORMANCE
› Temperature stability
› Multi-frequency support
› Wide band support for 5G

COST
› Competitive with existing technologies for filters

AREA
› Single die integration of multiple filters

frec|n|sys acquisition : an acceleration to penetrate filter market

Company profile

COMPANY BASED IN BESANCON (France)

› *Expertise in Piezo based sensors and resonators*

› An access to a 4”/6” manufacturing line that can run Piezo materials and build **SAW sensors and resonators** prototypes and small series

› A characterization lab to evaluate substrate impact on device performance

frec|n|sys

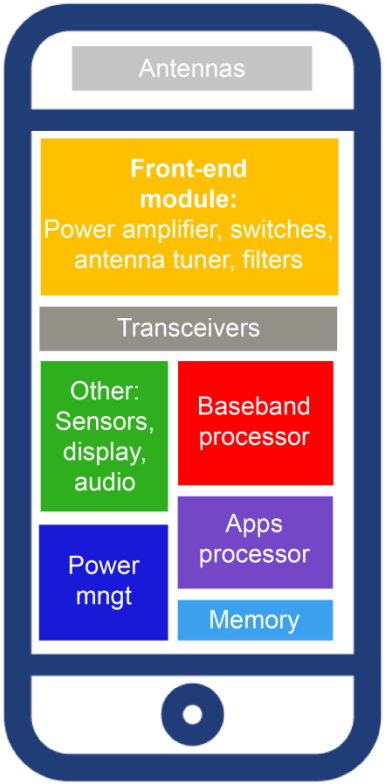
Interest for Soitec

ACCELERATE ADOPTION OF PIEZO ON INSULATOR FOR SAW APPLICATIONS

BETTER UNDERSTANDING OF DESIGN AND MODELING FOR FILTERS

MOVE ON NEW SENSOSR FIELD WITH TEMPERATURE AND PRESSURE SENSORS

Soitec presence in RF FEM tomorrow



Switch	RF-SOI	✓
	Stackig for RF-SOI	✓
Antenna tuner	RF-SOI	✓
Diplexer Coupler	RF-SOI	✓
LNA	RF-SOI	✓
PA (3G LTE)	RF-SOI	✓
Filters	POI	✓

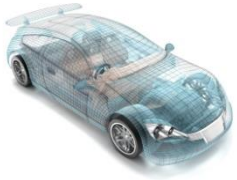
POWER-SOI

For seamless high voltage device isolation

Power market and application overview

Low - voltage

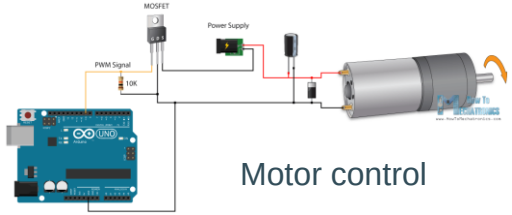
Power supply



IVN

Class D audio amplifier

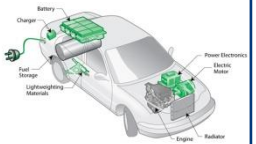
Medium - voltage



Motor control

Power inverter

UPS



EV/HEV

High - voltage

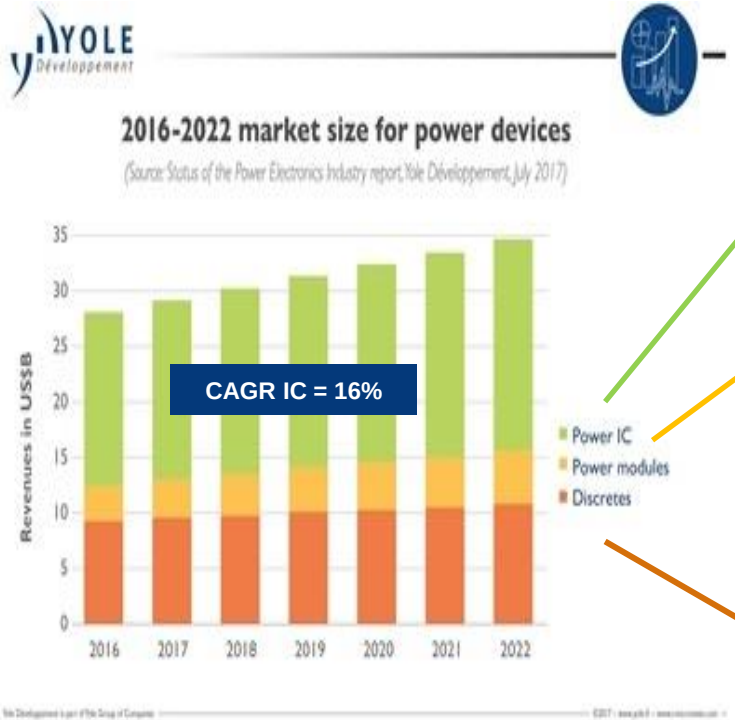
Freight & vessels

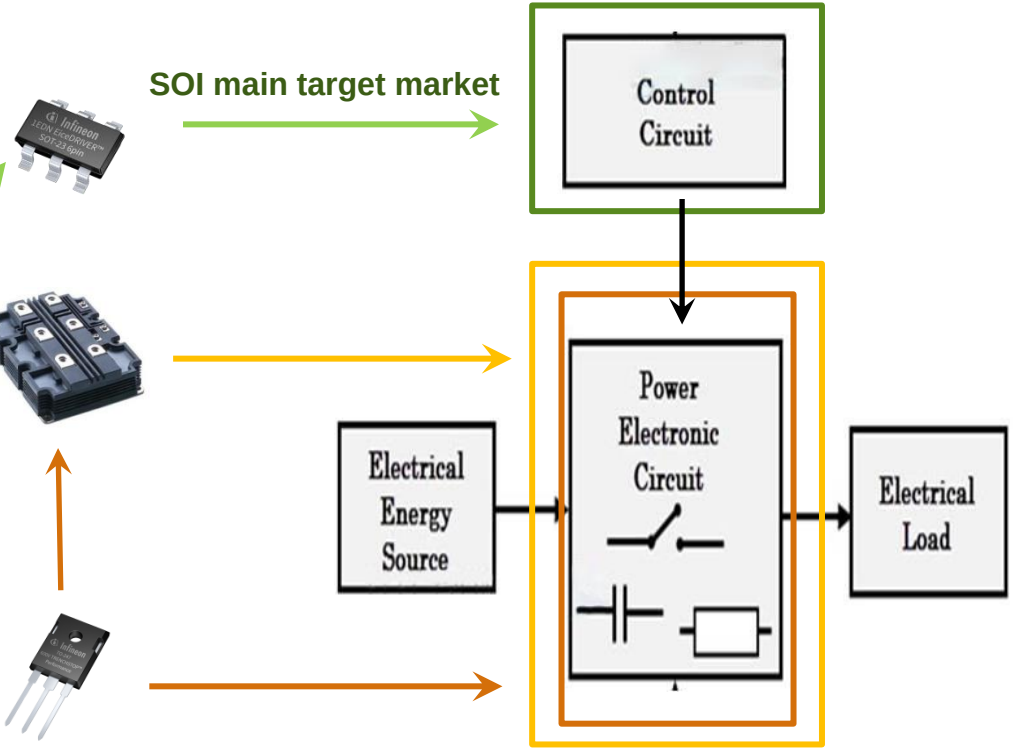
Windmill

Smart grid

Rail transport

Power-SOI typically targets control units of power systems





Source: Yole, March 2017

SOI penetration in power application
17% CAGR for Power-SOI (2017-2022)

Industrial
- Ultrasound Medical imaging
- Oil drilling
- Aerospace

Automotive
- Transceiver CAN/LIN
- Brushless motor drive
- High T. gate drivers

Communication
- AMOLED power supply
- AC/DC Power converter

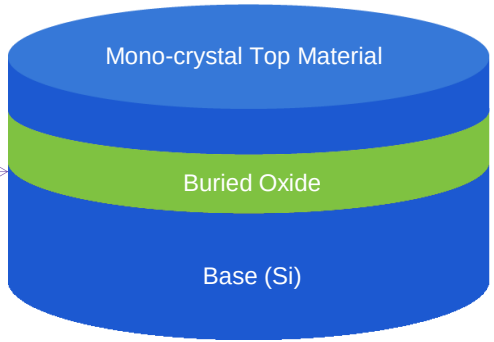
Consumer
- LED drivers
- 3-phase motor drivers (white good, air conditioner)
- Plasma display drivers

IT
- Desktop power supply
- Power over Ethernet

Power-SOI engineered substrates

Power-SOI engineered substrates

Buried-oxide layer to provide dielectric isolation for high-voltage integration and high reliability



Manufacturing mostly in 200mm

Bernin 1

Simgui

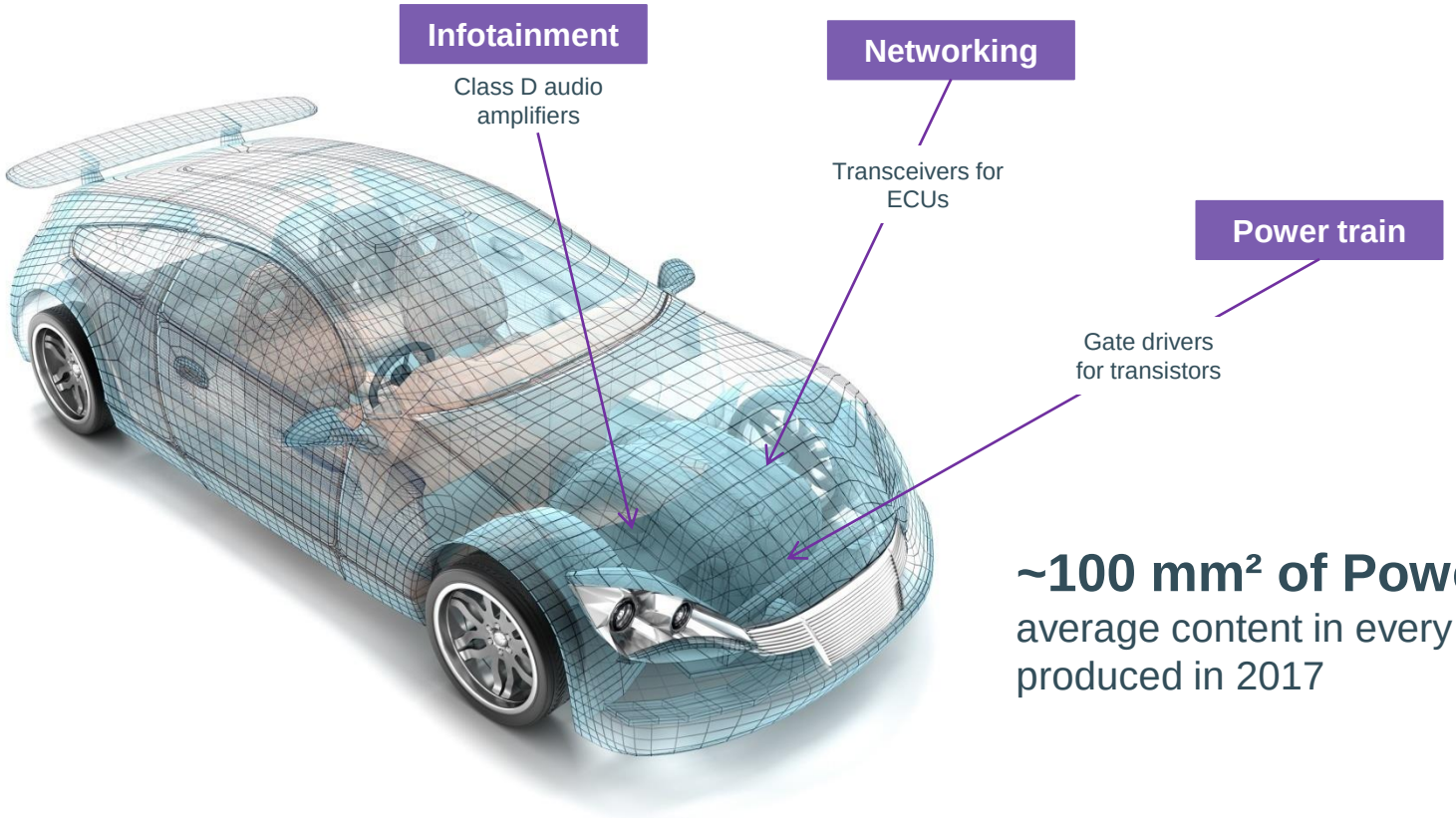
Value proposition

PERFORMANCE
- Excellent electrical isolation
- Higher temperature operation
- Multiple voltage domain integration
- High switching frequency

HIGH RELIABILITY

COST
- Smaller die size

Soitec footprint in Automotive



~100 mm² of Power-SOI
average content in every car produced in 2017

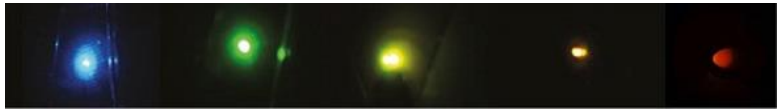
New materials beyond Silicon

Engineered substrates based on Compounds Semiconductors

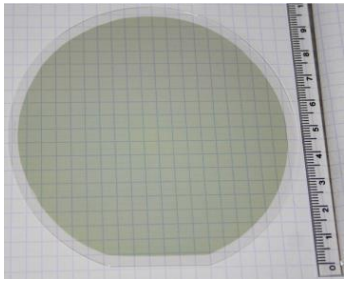
Developing new engineered substrates

Example for MicroLEDs

› Disruptive technology for direct green and red microLEDs
› Emission from hetero-structures grown on Soitec substrates



Indium-Gallium-Nitride (InGaN) materials
InGaN on Sapphire



› In collaboration with:

leti
ceatech

MicroLEDs examples of applications

› Virtual reality
› Head Up Displays (HUD) for cars
› Smartphones, smartwatches

Communication & Power Business unit – Key takeaways

1. 4G and 5G represent large business opportunities for Soitec engineered substrates for both existing products (RF-SOI) and new products (POI for filters)

2. Power is a critical element for many electronic devices
   Soitec business will expand thanks to automotive, industrial, consumer, displays

3. Beyond silicon materials – Soitec develops unique compounds substrates
   Potential applications in AR/VR, smart glasses, mobile displays…

4. Total addressable market for the BU in 2022: 2.5 to 3.6 million wafers* (200mm equivalent) ie 2x to 3x TAM in 2016

** Excluding POI for filters and compounds*

Agenda

1. CEO Introduction
2. Communication & Power
3. **Digital Electronics**
   Q&A session
4. Industrial Operations
5. Financials
6. CEO Closing Remarks
   Q&A session

Dr. Christophe MALEVILLE
EVP Digital Electronics Business Unit

1. Digital Electronics Business Unit at a glance
2. FD-SOI
3. Photonics-SOI
4. Imager-SOI
5. 2022 Outlook

Digital Electronics Business Unit



Skills

~ 100 people (PhDs, Engineers, Technicians, Operators)
Semiconductor, material sciences, digital devices, design, manufacturing

Products and Technologies

FD-SOI | Photonic-SOI | Imager-SOI | 3D structures

Manufacturing

Bernin 2

Singapore

Markets & Applications

Application & image signal processors
3D sensors
5G transceivers

Application processors
Microcontrollers
Radars

Application processors
GPS

Optical transceivers

We live in a digital world

Smartphones

Tablets

Virtual Reality

Connected Car

Machine Intelligence

Connectivity

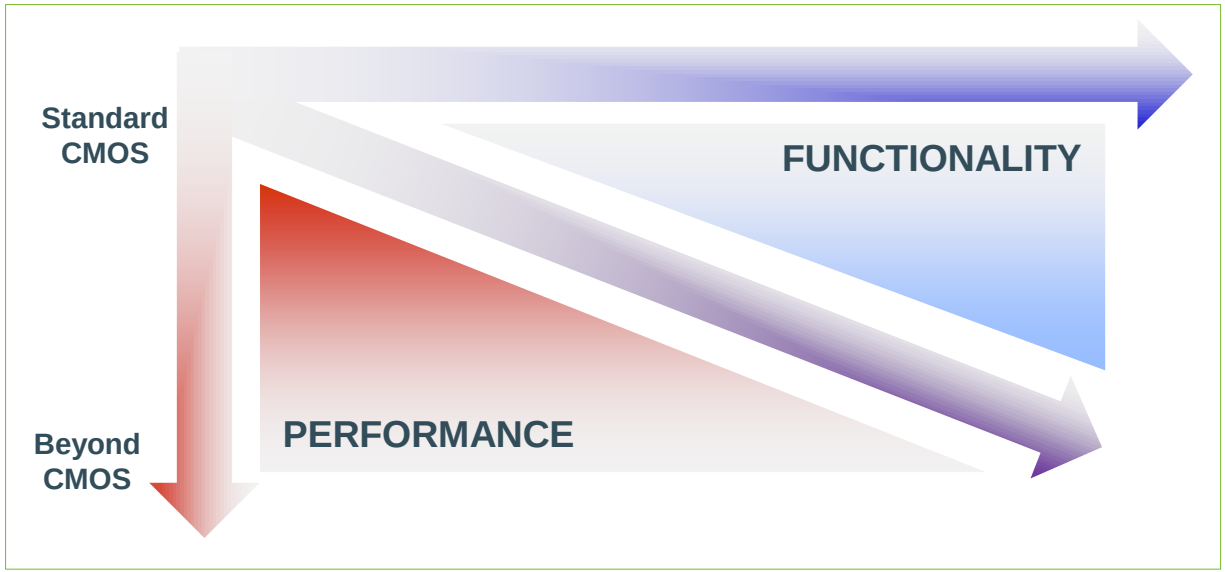
Optical fast data

Wearables

Semiconductor innovation – 3 possible paths

« More than Moore »
Heterogenous integration

Mixed-signal | Memories | MEMS | Photonics | Imaging | Biochips | RF

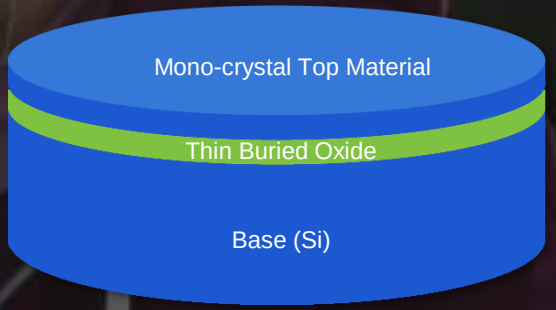


Moore's law
Smaller transistors
New materials

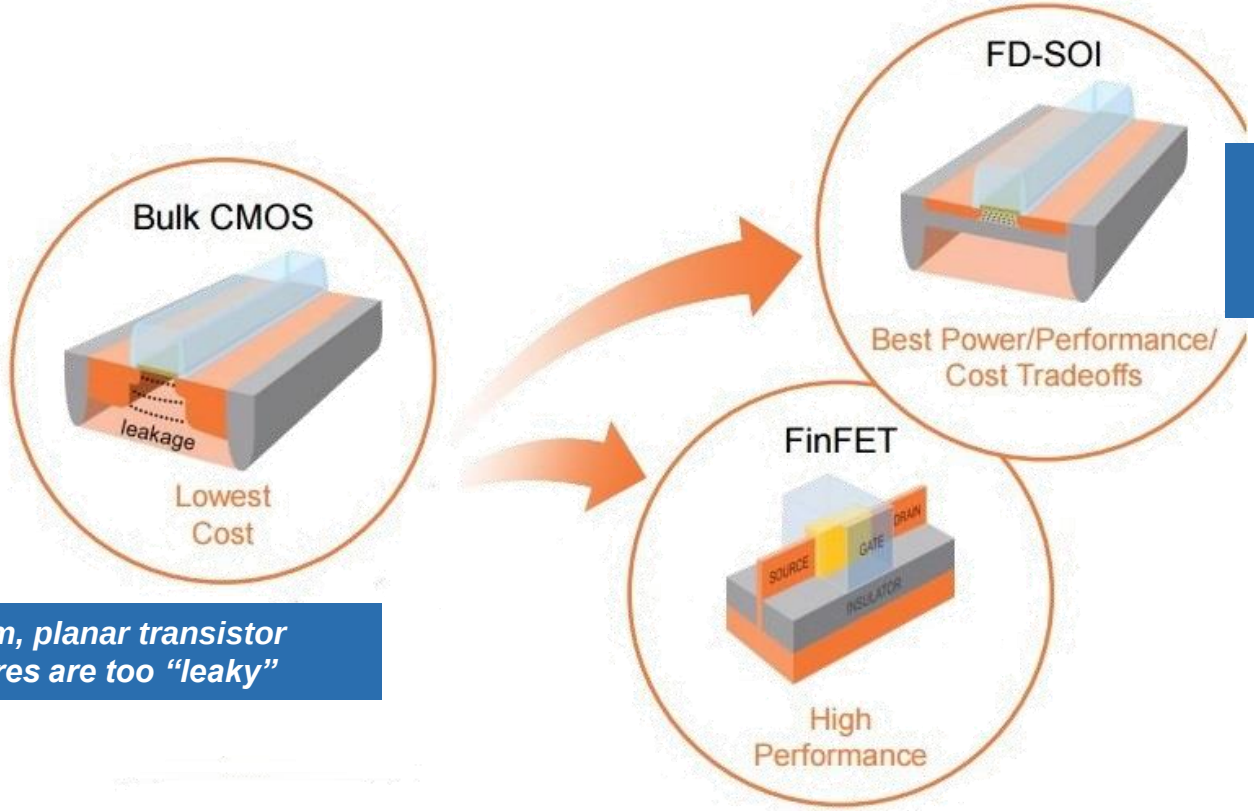
3D chip stacks
Silicon integration

FD-SOI

For power efficient & flexible digital computing with easy Analog/RF integration



The merits of FD-SOI based transistors

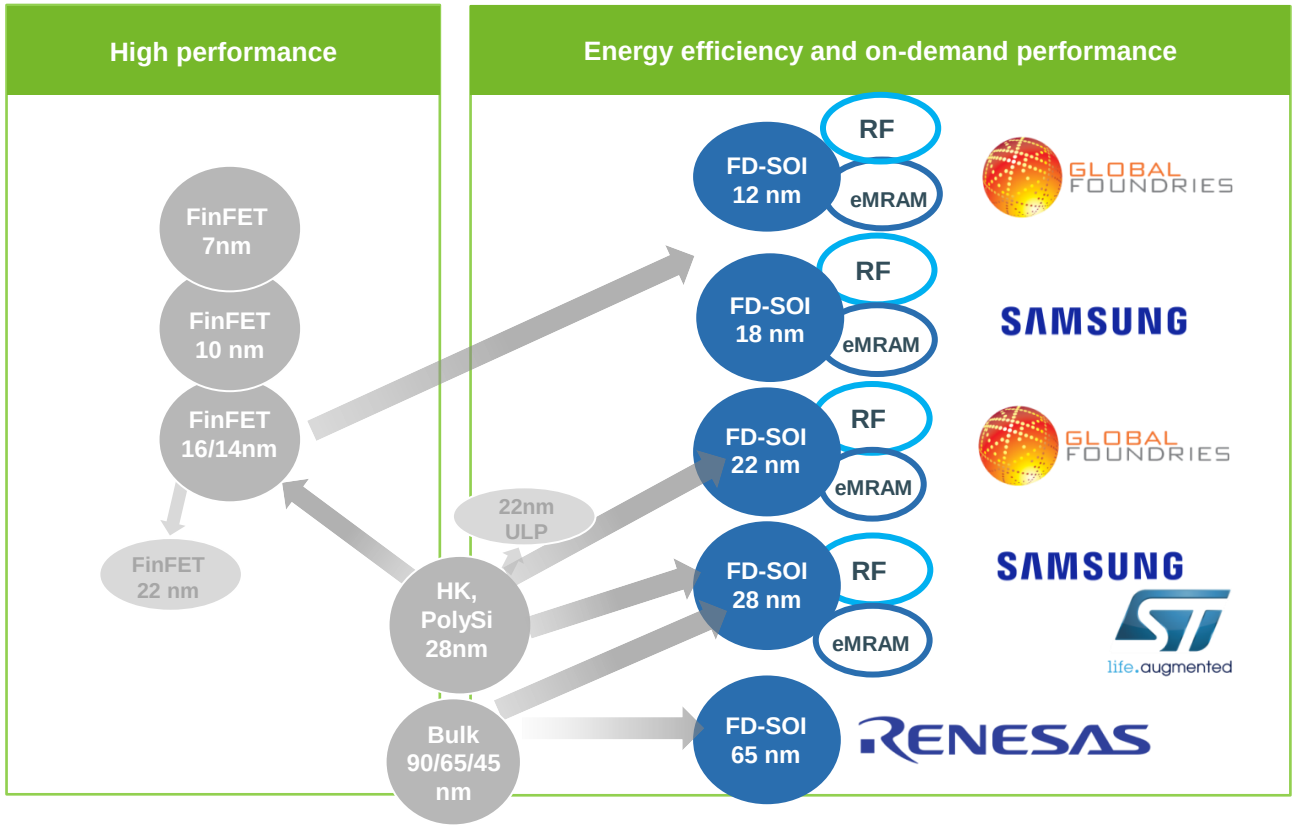


FD-SOI allows efficient transistor control with planar architecture

Below 22nm, planar transistor architectures are too "leaky"

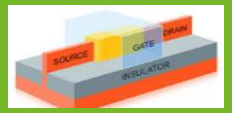
Source: GlobalFoundries

FD-SOI – A leading platform for low power applications



FD-SOI and FinFet mostly address different markets

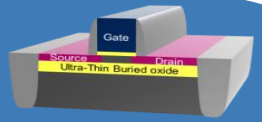
FinFet
Ultimate digital density



High end servers

Laptops & tablet-PC

FD-SOI
Ultimate integration for Digital/Analog/RF



Automotive

Smartphone

Consumer

Internet of Things

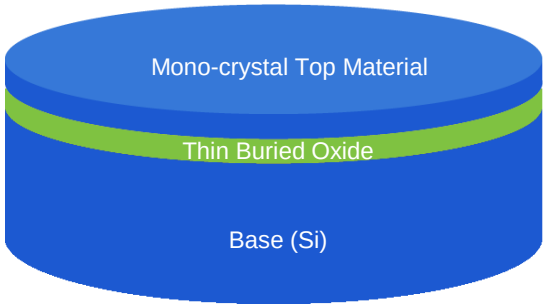
AR/VR

Networking Infrastructure

FD-SOI engineered substrates

FD-SOI engineered substrates

Ultra-thin top silicon & box enabling fully-depleted transistor operation



Manufacturing only in 300mm

Bernin 2

Singapore

Value proposition

Up to 80% saving on Power vs bulk
- Junction capacitance removal
- Body Bias enabling ultra-low voltage

Up to 50% performance boost
- On demand performance through body bias
- 5G mmWave compatible RF device
- Immunity to high energy particules (reliability)
- Superior analog device behavior vs bulk

Cost – back on Moore's law downto 12nm
- Lower manufacturing cost for foundry vs bulk
- Lower NRE than FinFET

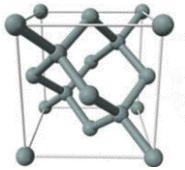
FD-SOI enabler: Thickness control at atomic level… in HVM*

Grenoble- Paris
~ 480 km

±0.8mm

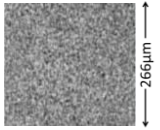
Millions wafers controlled at atomic level, all points, all wafers

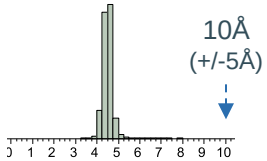
±5 Å



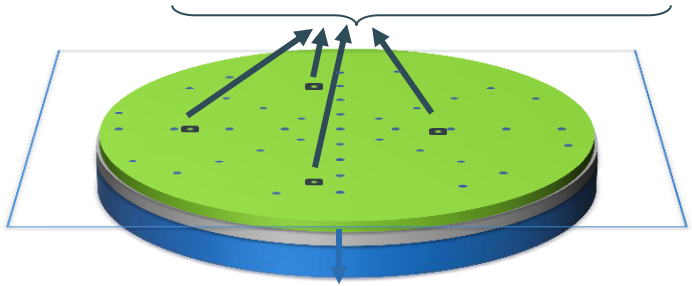
Mature process and yield in HVM

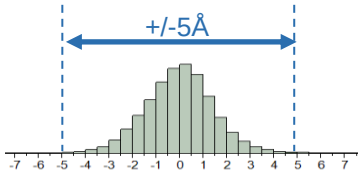
266µm x 266µm thickness scan





Die level thickness range (Å)



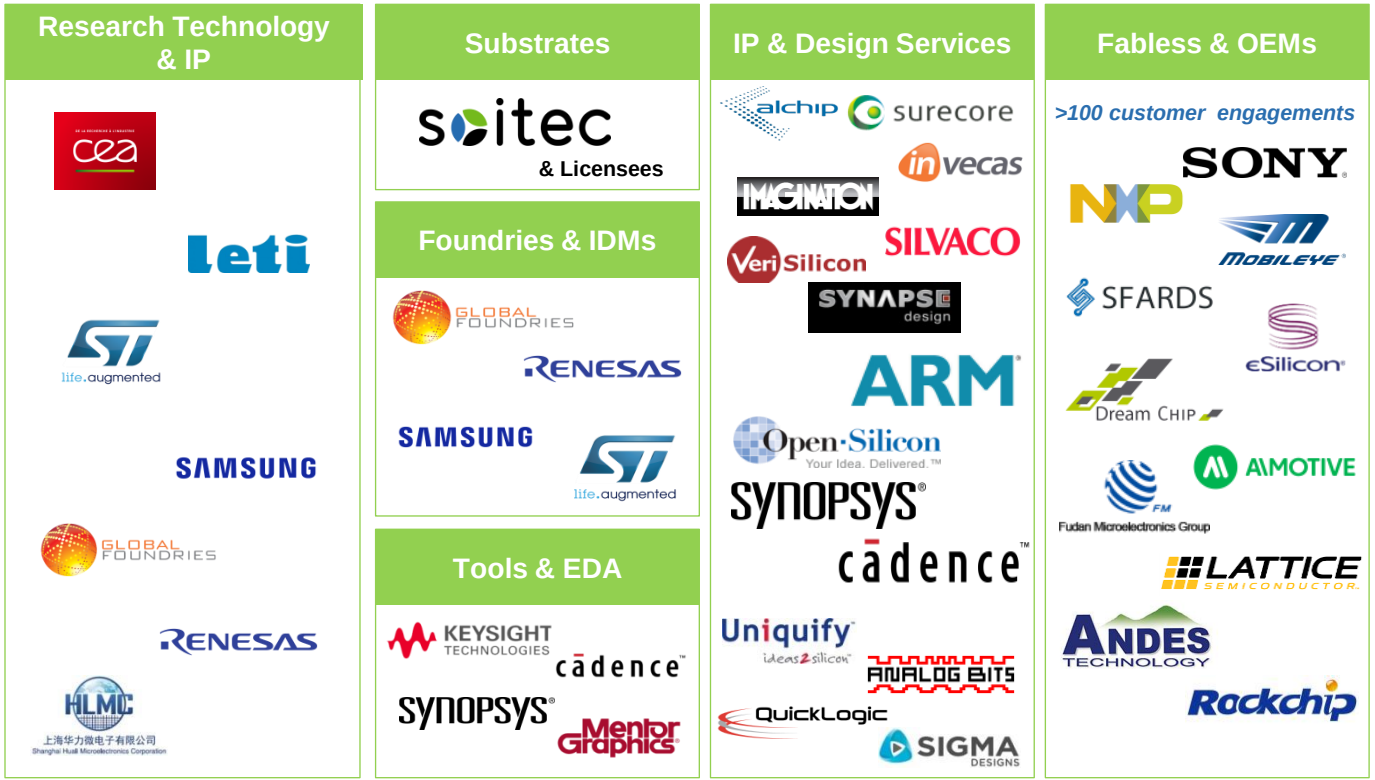


Top silicon

Full wafer thickness deviations

* High volume manufacturing (HVM)

A complete FD-SOI ecosystem in motion



FD-SOI Multiple Foundry Offering

Under development

FDX 12nm — RF eMRAM — GLOBALFOUNDRIES

Under qualification

FDS 18nm — RF eMRAM — SAMSUNG

In production

FDX 22nm — RF eMRAM — GLOBALFOUNDRIES

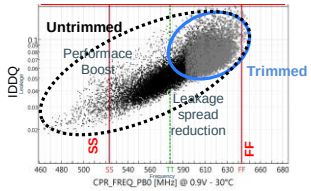
FDS 28nm — RF eMRAM — life.augmented — SAMSUNG

SOTB 65nm — RENESAS

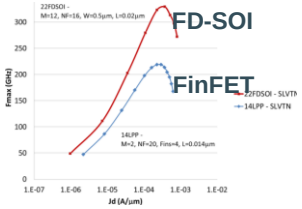
FD-SOI : 3 steps adoption

Unique Features :

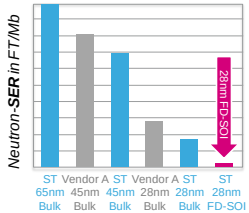
Body Bias Compensation

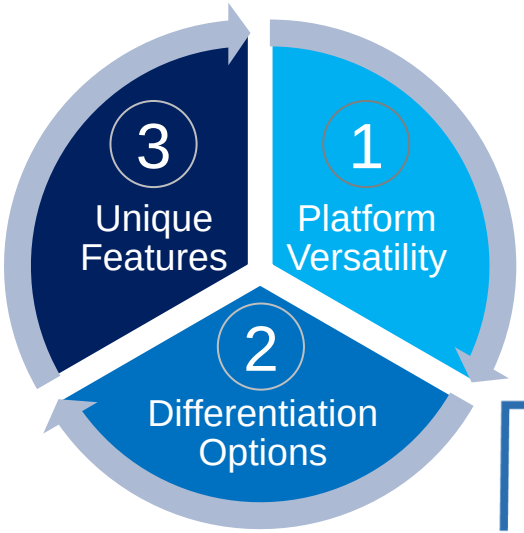


mmWave CMOS

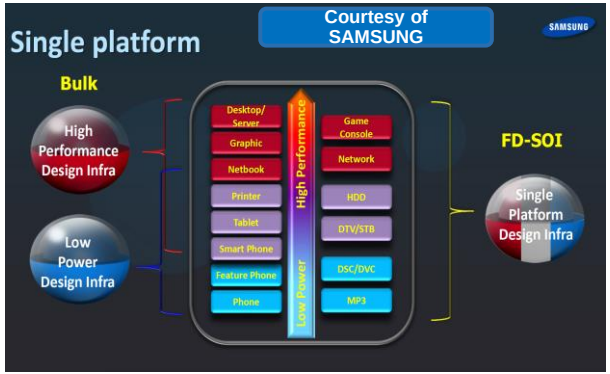


Radiation immunity

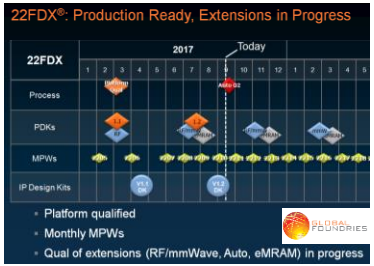


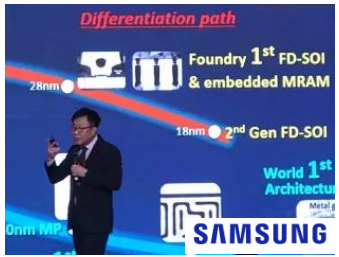


Platform Versatility: Energy Efficiency + Performance on Demand



Differentiation Options: RF, MRAM, ULP





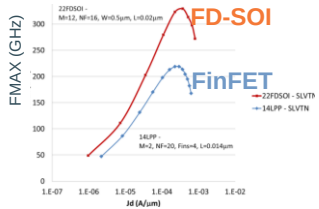
soitec

FD-SOI for Smartphones

LTE/5G RF transceivers

Low Power x Fmax

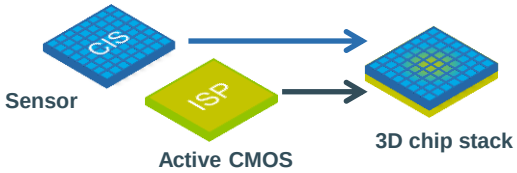
› High performance analog/RF
› mmWave compatible (Fmax >300GHz)



From GLOBALFOUNDRIES

Image Signal Processor

› High performance analog
› Ultra low power & low temperature
› Perfect sensor die matching (best cost/mm²)

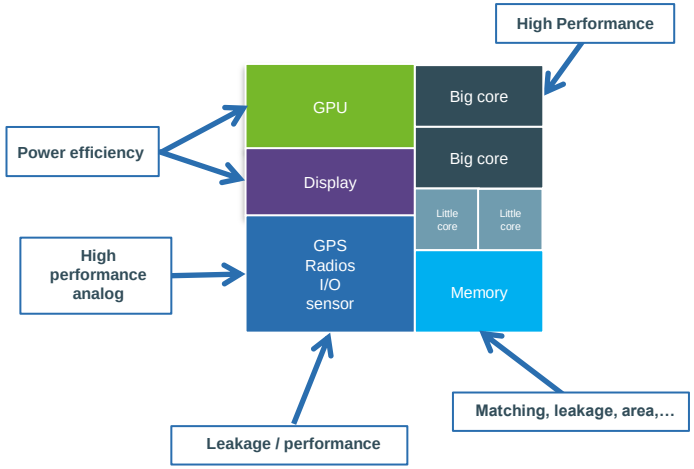


Low Power x Analog X Cold ops

Low Power x Perf on-demand X Integration

Application Processor

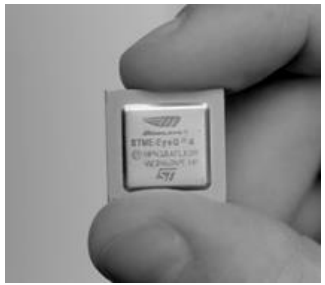
› Best power/performance/cost trade-off
› Single chip solution
› Perfect fit for entry market mobile & "phonewatch"



FD-SOI for Automotive

Best power efficiency allowing simpler integration and enhanced reliability

FD-SOI - Reference technology for
ADAS level 3 applications



EyeQ4

MOBILEYE

Next generation **e-Cockpit** solution with full management of **car infotainment**

NXP

i.MX 8 series
Advanced Graphics & Performance
ARM® v8-A

soitec

FD-SOI for Internet of Things

FD-SOI enable low-power and ultra-low power applications (always-on)

FD-SOI cuts standard GPS power consumption by 5 to 10 times

SONY

huami

AMAZFIT

CASIO

PRO TREK

i.MX reference platform by NXP

amazon alexa

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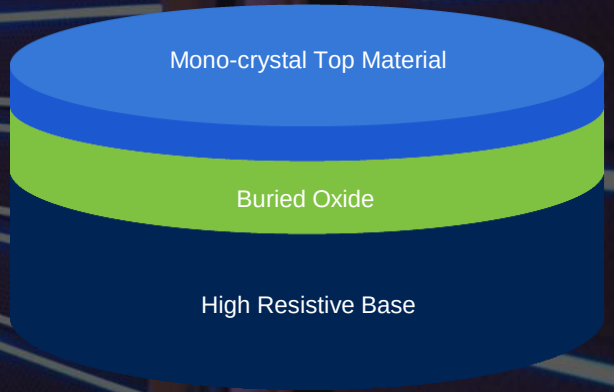
Low-power or ultra-low power applications

Around 40% of foundry business by 2022

Source: IBS Consulting

PHOTONICS-SOI

For photonics applications with integrated optical waveguides



Cloud infrastructure needs much faster switching speeds

Internet & Telecom operators are building « Hyperscale » datacenters

amazon facebook Google Microsoft Alibaba Group Tencent 腾讯 Baidu

Strong demand for much faster optical interconnects

100Gb/s, 400Gb/s

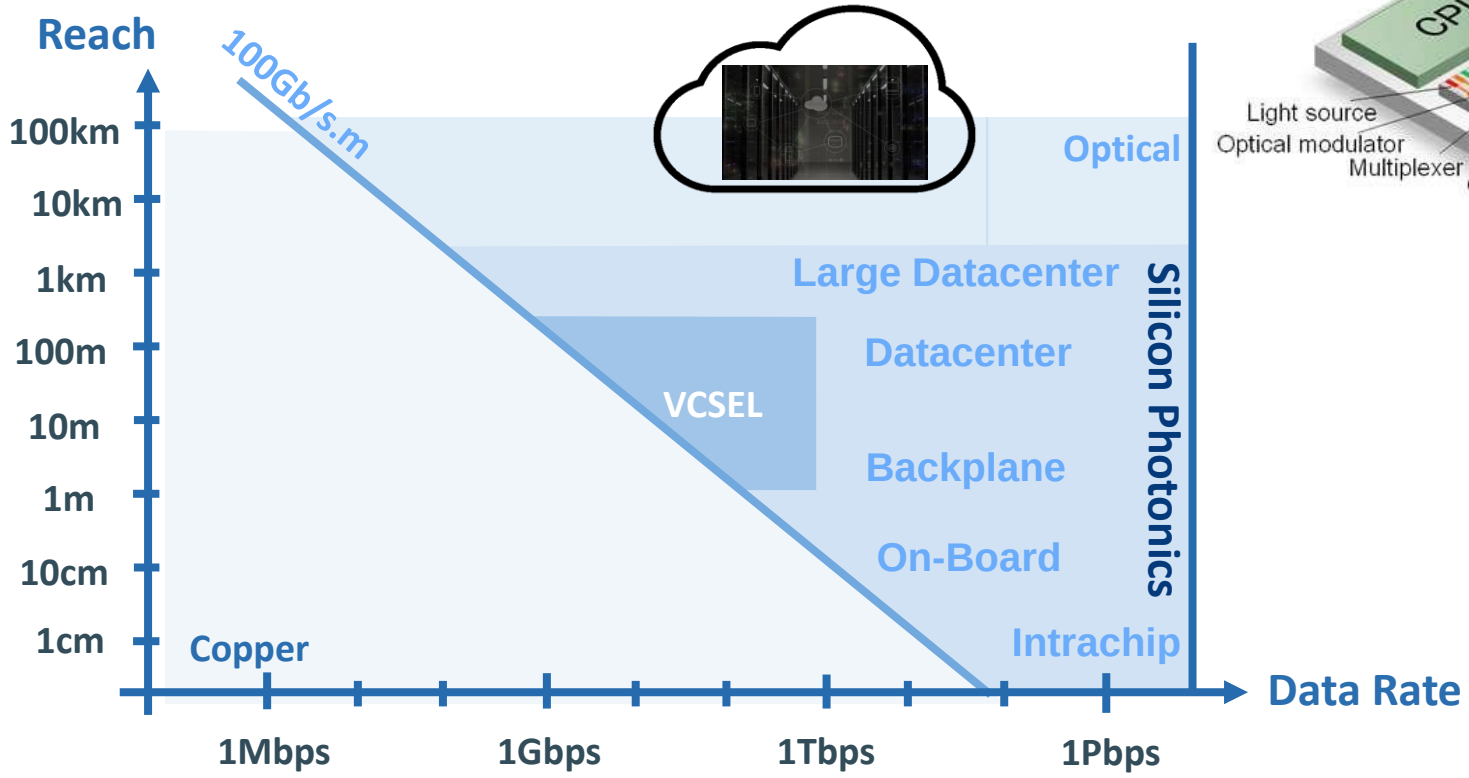
intel HUAWEI cisco

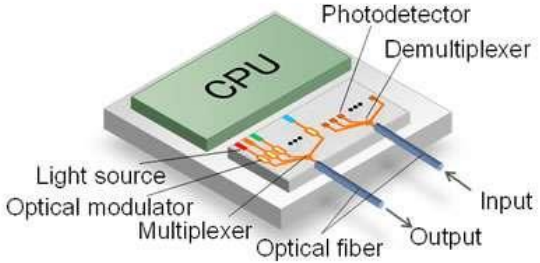
Hyperscale datacenters require higher switching speeds

90% of data communication
***WITHIN** datacenters (East-West)*

soitec

Photonics-SOI, the only way to make Silicon Photonics



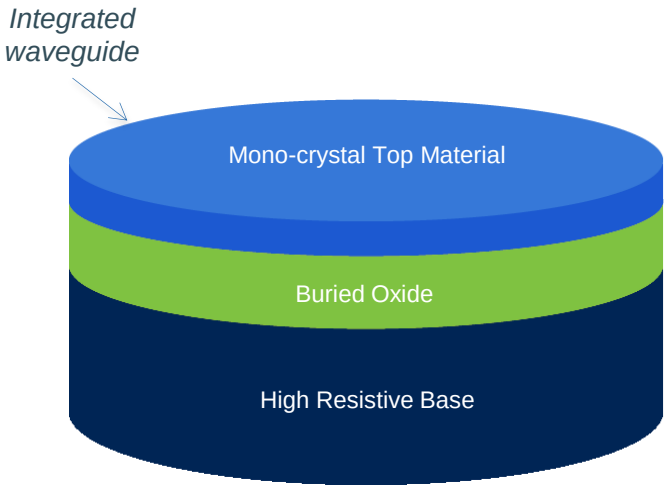


Source: Krishnamoorthy, et al., IEEE J. Selected Topics in Quantum Electronics, vol. 17, no. 2, 2011

Photonics-SOI engineered substrates

Photonics-SOI engineered substrates

Waveguide + optical fiber matching + Low loss



Ultra uniform top silicon layer & thick BOX enabling optical devices integration

Manufacturing mostly in 300mm

Bernin 2

Singapore

Value proposition

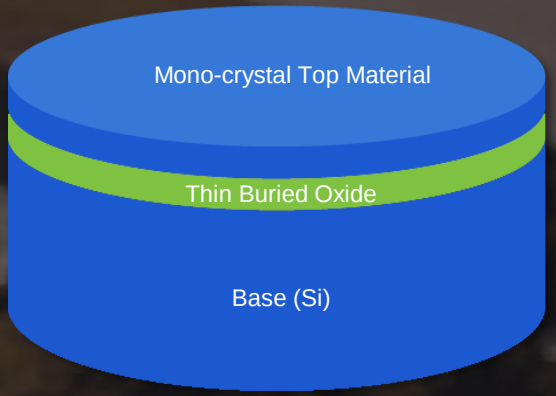
POWER
› Path for wavelength multiplexing
› Enable optical transceiver closer to the chip (lower propagation loss)

PERFORMANCE
› Higher throughput than direct light modulation
› Enables 100G & 400G transceivers technology

COST
› Leverage standard silicon process
› Lower cost compared to non silicon platforms

IMAGER-SOI

For NIR CIS substrate based noise cancellation solutions



Reliability x Power Consumption

2017

Front 3D camera
structured light

iPhone X

Front 3D camera
structured light

iPad 2018

2018

Front 3D camera structured light / time of flight
Rear 3D camera stereo / structured light

iPhone 11

Structured Light approach seems difficult to fit into the Apple Watch

2019

Front: 3D ToF sensing
QVGA
(Outdoor usage)

New Apple Watch

Apple Watch embedding a unique 3D ToF camera to authenticate and communicate through avatar/Animojis (Saving bandwidth/data, power consumption) appears more realistic

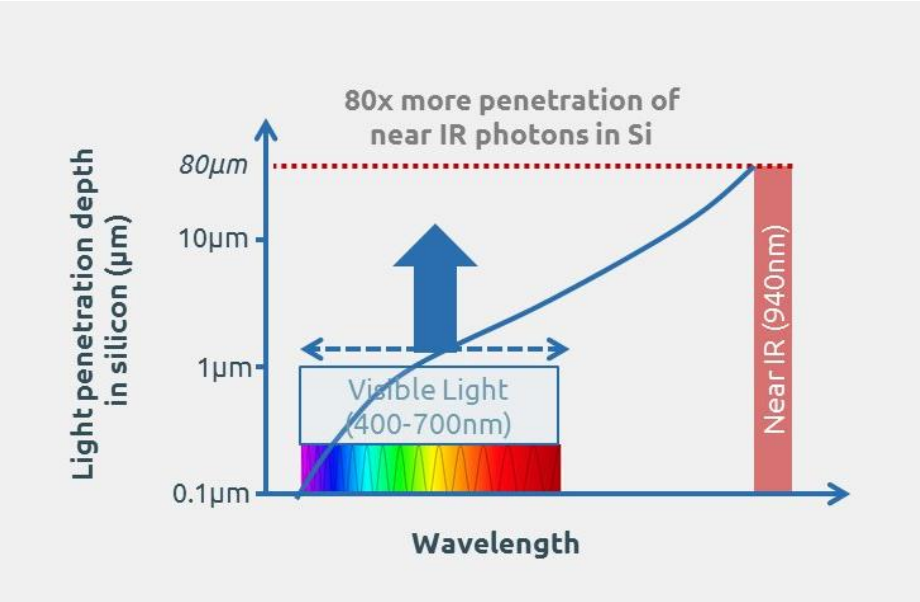
2020

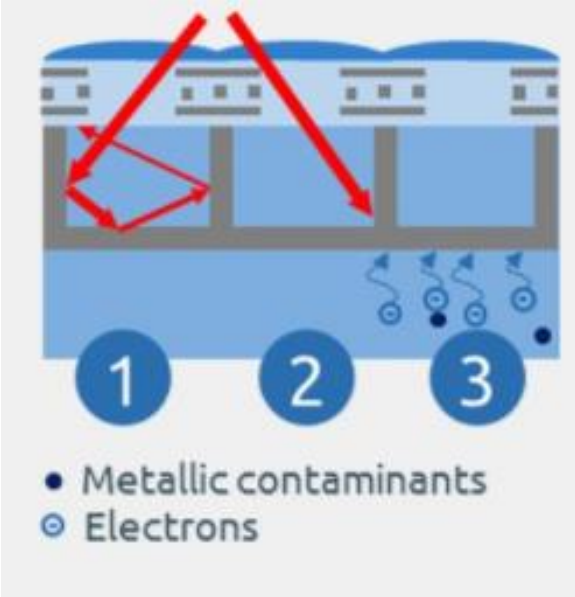
Front 3D camera
Rear 3D camera

iPhone 12

We just launched a new product!

Sensing in Near Infra-Red – SOI based pixels





https://www.soitec.com/en/products/imager-soi

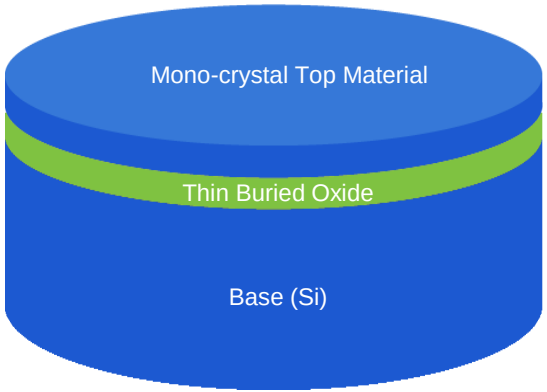
❶ Box ➔ light concentration
❷ Box allowing full pixel isolation and silicon platform
❸ Box preventing metallic contamination to active layer

Imager-SOI engineered substrates

Imager-SOI engineered substrates

Thin top silicon layer & ultra thin BOX enabling efficient NIR noise cancellation

SOI isolates pixel from substrate charges and metal contamination



Manufacturing mostly in 300mm

Bernin 2

Singapore

Value proposition

POWER
› Lower near infrared illuminator power consumption

PERFORMANCE
› Reduced noise, increase signal to noise ratio,
› Less sensitivity to metal contamination
› Higher resolution

COST
› Lower die size than bulk for same resolution

Digital Electronics Business unit – Key takeaways

1. FD-SOI offers a unique platform capable to integrate multiple functionalities driven by low-power mobile device and infrastructure
2. FD-SOI is now part of our daily life and adoption is accelerating across the entire value chain (foundries, fabless, OEMs)
3. Photonics-SOI and Imager-SOI substrates are enabling emerging Optoelectronics and 3D Imaging applications with market leaders
4. Total addressable market for the BU in 2022: 1.1 to 3.4 million wafers (300mm equivalent)


Q&A
soitec

Agenda

1. CEO Introduction
2. Communication & Power
3. Digital Electronics

Q&A session

4. **Industrial Operations**
5. Financials
6. CEO Closing Remarks

Q&A session

Cyril MENON
Vice-President Industrial Operations

1. Multi-sites and multi-products Industrial Footprint
2. Operational Excellence
3. Operations to support a profitable growth

Multi-sites industrial footprint to support growth

200mm SOI

Soitec Bernin I, France
HVM

850 K wafers/.y capacity

Total 200mm capacity
→ 1 .0M wafers/y.
by FY'19
(0.5M/y equivalent 300mm)

Simgui, China
Ramp to HVM

75 K wafers/y. capacity
To be raised to 150 K wafers/y. by FY'19

Pasir Ris, Singapore
Ready HVM

+ 800 K wafers/y. capacity
(FD-SOI pilot line launch – Sept. 17)

300mm SOI

Soitec Bernin II, France
HVM

650 K wafers/y. capacity

Total potential 300mm capacity
→ Up to 1.5 M wafers/y.

Multi-products industrial footprint to support growth

200mm SOI

Soitec Bernin I, France HVM*

RF-SOI

Power-SOI

Simgui (licensee) China Foundry - Ramp to HVM*

RF-SOI

Power-SOI

300mm SOI

Soitec Bernin II, France Ramping up

Photonics -SOI

RF-SOI

Imager-SOI

FD-SOI

Soitec Pasir Ris, Singapore Pilot Line qualification

FD-SOI

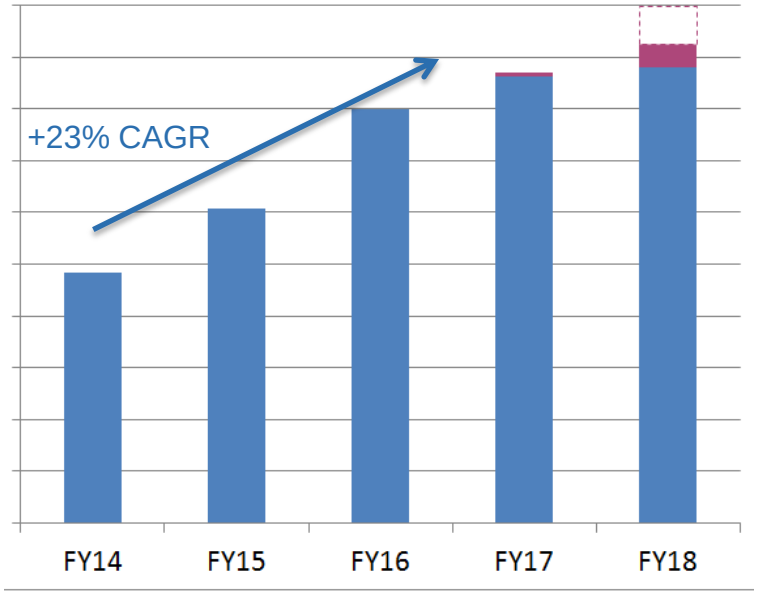
Other SOI Products

*High Volume Manufacturing (HVM)

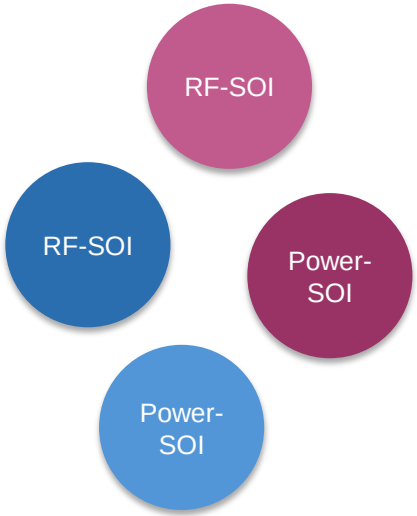
Dimensioned to meet the growing demand

200mm Production Capacity

Soitec, Bernin I, France, HVM*
Simgui (licensee), China, Ramp to HVM*



Products manufactured in 200 mm



Outlook

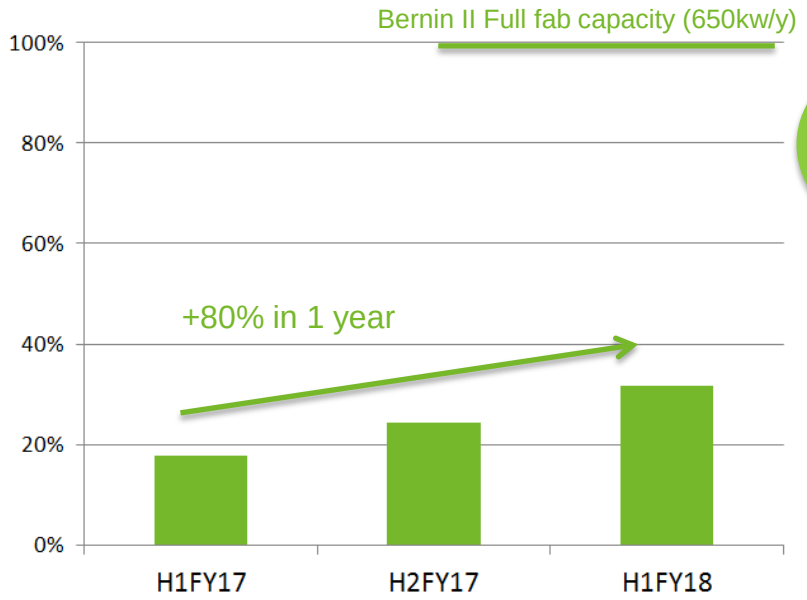
› Additional capacity available and qualified at Simgui to sustain constant demand

› Bernin I marginal capacity increase under discussion

*High Volume Manufacturing (HVM)

Accelerating production ramp
300mm Production Capacity

Soitec, Bernin II, France, Ramp to HVM*



Products manufactured in Bernin II

Outlook

› 40 million Euros investment to increase FD-SOI production capacity from 100,000 to >350,000 wafers per year

› Capex will be spread between FY'18 and FY'19

› Capacity utilization rate expected to reach around 50% towards the end of FY'18 / early FY'19 and 100% by end FY'19

*High Volume Manufacturing (HVM)

Multi-site FD-SOI sourcing
300mm Production Capacity

Soitec, Pasir Ris, Singapore, Pilot Line Qualification

Opening Ceremony, September 2017

› Initial investment of US$40 million for the pilot line

› Total capex of US$270 million to reach full capacity (800k wafers per year)

› Pilot line launched in September 2017, qualification expected in 2019

› 6 to 9months to implement incremental capacity

A robust and efficient industrial organization

600
in Bernin and Singapore manufacturing plants

>80%
works on shifts to cover 365 days a year

100%
of our toolset uses standard equipment

>90%
of maintenance and support performed internally

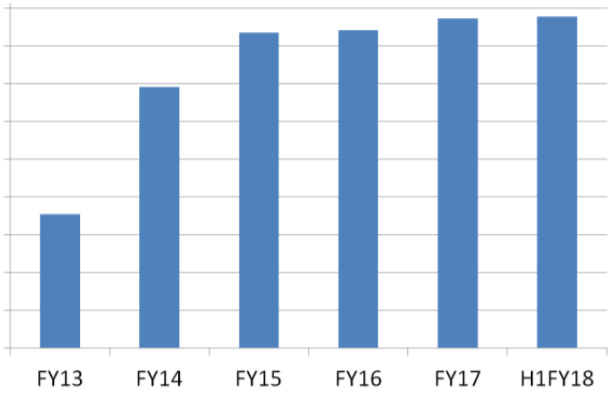
90 Engineers
with various skills
Know-How is KEY !

Bernin I
200 mm
Bernin II
300 mm
100%
mutualized workforce

Operational excellence

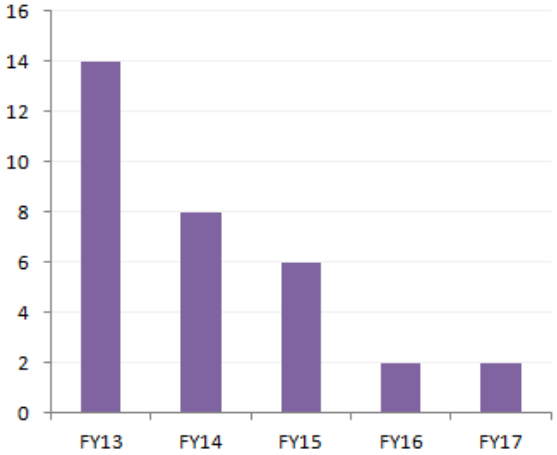
Data-driven production to fulfill commitment

200mm RF Quality Yield improvement



A large set of data management to ensure volume AND quality ramp-up

Infrastructure issues reduction over time



Robust quality methodologies to prevent and address occurencies

Operational excellence

Operational teams drive their own efficiency

Short Interval Management

Alignment & commitment on priorities

Real time information and dynamic scheduling proposal

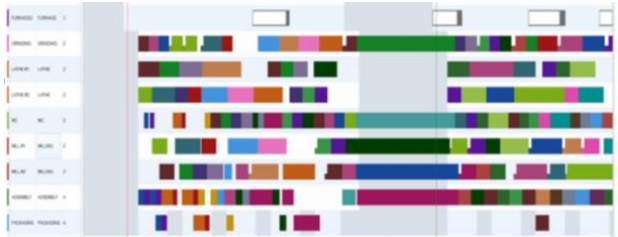
MIRRA Situation live

last refresh 1 : 30/11 19:01

EqpID	Statut	Indice RMS	Tps	PAD1	PAD2	PAD3	Cpt Def	Def Lot	Cpt ACU	ACU Lot	Recall qualité*	PartID qualifiés & dispo ds WP Pol	Temps restant contrainte recall
MIRRA1	AVAL	1	00:11:33	75	49	44	4/10	3E37666.1 (DEF_AP_POL)	4/8	Last processed : 3E37245.1 (NET_AP_POL) MES_AP_POL : 3E37193.1	2450ETR *	8PRD10163M.01 8PRD10169M.01 8PRD10282M.01 8PRD10415M.01 8PRD10447M.01 8PRD10480M.01	08:13
MIRRA2	AVAL	2	00:02:45	74	47	43	8/10	3E37237.1 (ALIGNNOTCH)	2/8	Last processed : 3E37618.1 (NET_AP_POL) MES_AP_POL : 3E37663.1	2450ETR *	8PRD10163M.01 8PRD10169M.01 8PRD10282M.01 8PRD10415M.01 8PRD10447M.01 8PRD10480M.01	08:06
MIRRA3	AVAL	1	01:08:01	149	43	55	5/10	3E36982.1 (ALIGNNOTCH)	3/8	Last processed : 3E32477.1 (NET_AP_POL)	1501OD-2 *	8PRD10282M.01 8PRD10293M.01 8PRD10465M.01	07:46
											2450ETR *	8PRD10163M.01 8PRD10169M.01 8PRD10282M.01	06:50

A set of tools enabling operators to manage their own efficiency by having all information at a glance

Scheduling proposal to help operators maximize wafers output while meeting delivery date



Operational excellence

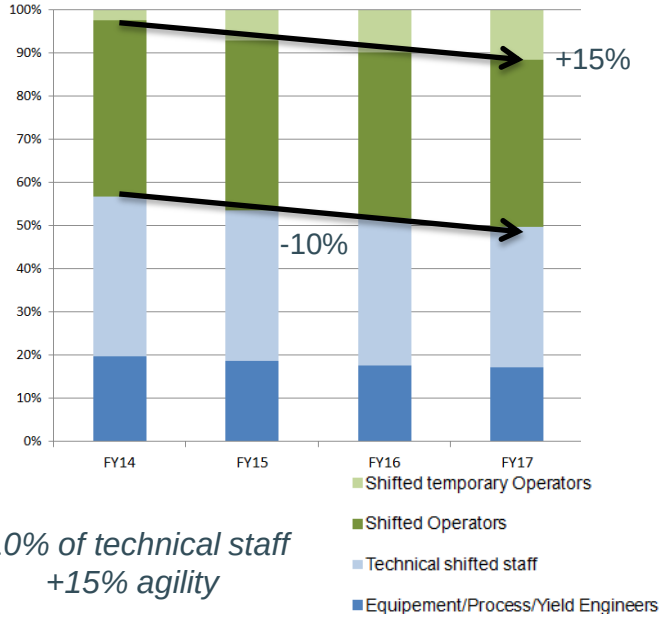
Training & recognition programs to increase agility

Deep organizational and cultural change

A deep and large program to train our operators and deploy Total Productive Maintenance

Rewarding our operators

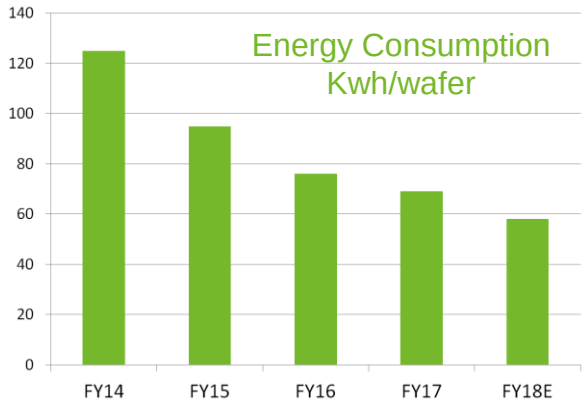
Creating a more efficient and agile structure



-10% of technical staff
+15% agility

Embedding sustainability into operations & beyond

Energy performance : one of our industrial KPIs



Our fabs are certified to be supplied by 100% renewable energy

Environment & Energy

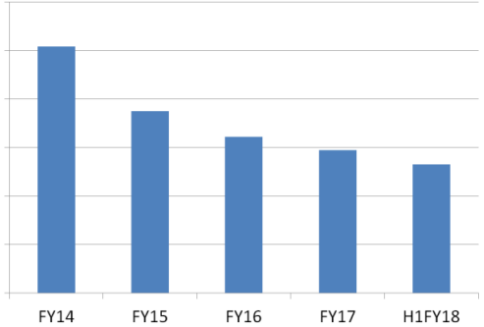
Engaging all employees on the topic during a dedicated Environement & Energy day on site

Electric car charging station on site

Generating higher value through Continuous Improvement

200mm SOI

Soitec Bernin I, France



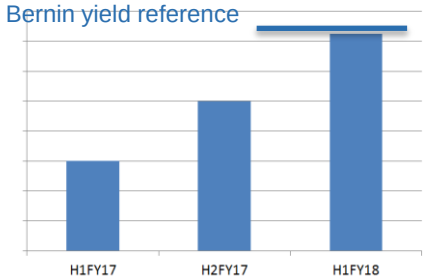
Process Cost Per wafer 200mm

-50%

Simgui, China

Simgui Quality Yield matching Bernin in

12 months

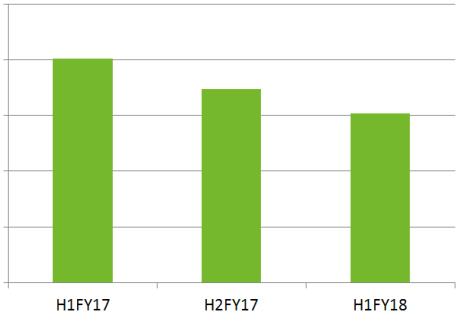


300mm SOI

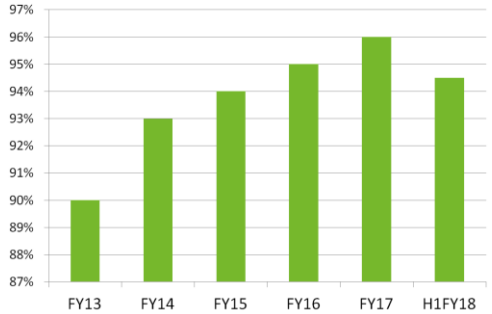
Soitec Bernin II, France

Process Cost Per Wafer 300mm

-25%



Soitec



On Time Delivery at Benchmark level

> 94%

Global operations to support profitable growth

1. Robust and efficient industrial organization
2. Scalable and flexible manufacturing model for all product lines and all sites
3. Continuous improvement to enhance quality and reduce process cost
4. Management system to ensure high QHSE* standards

*Quality Health Safety Environment (QHSE)

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1. CEO Introduction
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3. Digital Electronics

Q&A session

4. Industrial Operations
5. **Financials**
6. CEO Closing Remarks

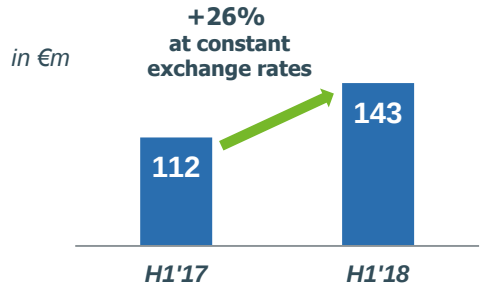
Q&A session

Rémy Pierre
Chief Financial Officer

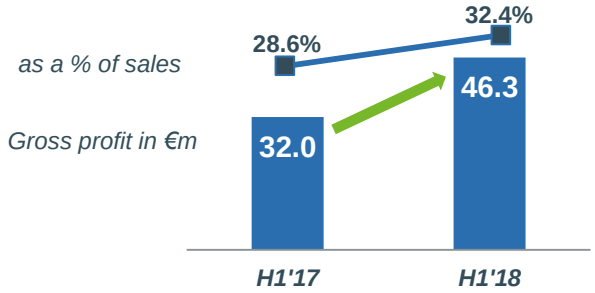
1. **H1’18 Results**
2. Outlook for FY’18
3. Financial model for a new fab
4. Long-term financial model, key takeaways

Further substantial improvement in operating profitability in H1'18

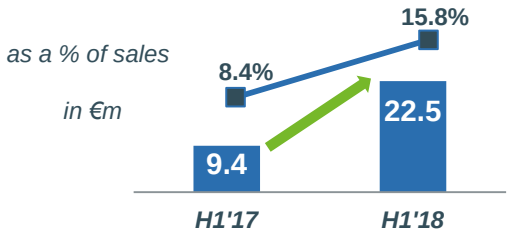
Accelerated growth in sales (Electronics)



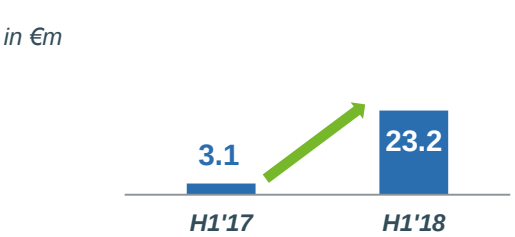
Strong improvement in gross margin



Significant increase in current operating income



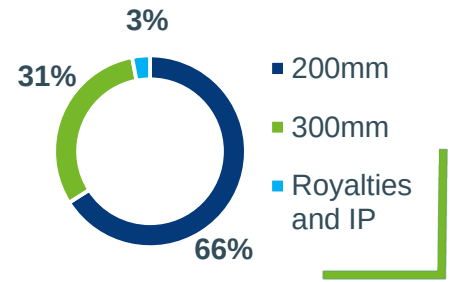
Substantial jump in net result



The income and expenses related to discontinued operations are directly reported as "Net result from discontinued operations". Down to the line "Net result after tax from continuing operations", the Group consolidated P&L account now exclusively and fully reflects the Electronics activities as well as corporate expenses.

H1’18: revenue breakdown

In million euros	H1’17	Q1’18	Q2’18	H1’18	Change vs H1’17	Change at constant FX
200mm wafer sales	**87.4**	46.5	47.4	**93.9**	+7%	**+6%**
300mm wafer sales	**22.0**	21.1	23.7	**44.9**	+104%	**+102%**
Royalties and IP revenues	**2.7**	2.0	2.2	**4.2**	+54%	**+52%**
Total sales	**112.1**	**69.6**	**73.3**	**143.0**	**+27%**	**+26%**



- 200mm wafer sales up 6% excl. currency impact
  - Sales driven by sustained demand for radio frequency and power electronics applications in the mobile and automotive markets respectively
  - Bernin I production site operating at full capacity complemented by modest sales from Simgui, leading to volume increase vs H1’17
- 300mm wafer sales more than doubled excl. currency impact
  - Significant pick-up in new 300mm products: launch of Imager-SOI in high volume manufacturing, continuous growth of Photonics-SOI wafers, increase in FD-SOI wafer sales

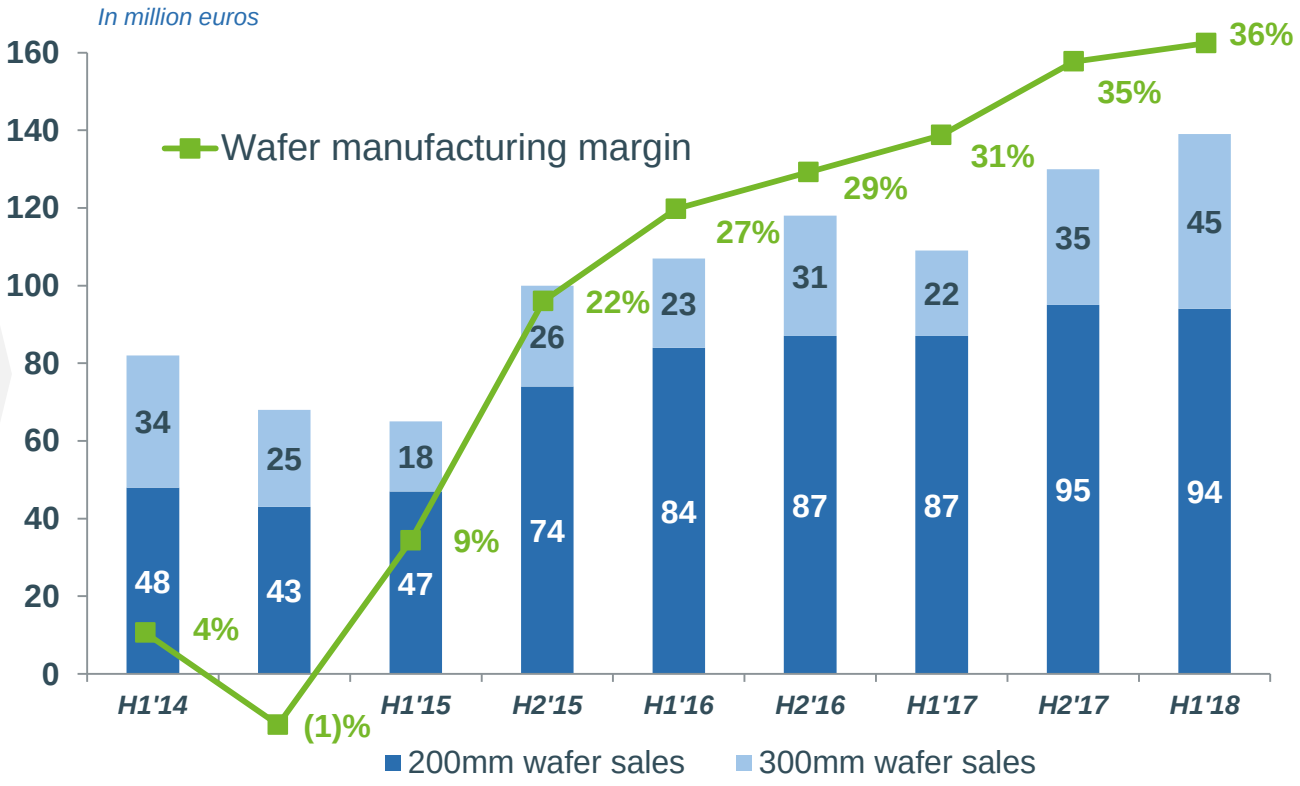
Group consolidated P&L (1/2)

In million euros	H1'18	H1'17	Change
Sales	**143.0**	**112.1**	**+28%**
Gross profit	**46.3**	**32.0**	**+45%**
As a % of sales	*32.4%*	*28.6%*	
Research and development expenses	(9.5)	(9.7)	-1%
As a % of sales	*6.7%*	*8.6%*	
Selling, general and administrative expenses	(14.2)	(12.9)	+10%
As a % of sales	*10.0%*	*11.5%*	
Current operating income	**22.5**	**9.4**	**+139%**
As a % of sales	*15.8%*	*8.4%*	
EBITDA (Continuing operations)	**34.9**	**18.5**	**+89%**
As a % of sales	*24.4%*	*16.5%*	

The income and expenses related to discontinued operations are directly reported as "Net result from discontinued operations". Down to the line "Net result after tax from continuing operations", the Group consolidated P&L account now exclusively and fully reflects the Electronics activities as well as corporate expenses.

Continuous improvement in manufacturing margin

1. Steady revenue growth over the past few quarters, drop in PD-SOI has been overcome
2. 200mm: Bernin I operating at full capacity with further improved productivity
3. 300mm: increased utilization of Bernin II capacity (above 30% in H1'18 vs 18% in H1'17)
4. Ongoing benefits from previous years cost saving plan



H1’18 operating expenses

R&D expenses (in million euros)	H1’18	H1’17
Gross R&D expenses	(22.3)	(21.3)
Prototype sales and other	3.7	2.2
Subsidies and income tax credit	9.1	9.4
Total net R&D expenses	**(9.5)**	**(9.7)**
As a % of sales	*(6.7%)*	*(8.6%)*

SG&A expenses (in million euros)	H1’18	H1’17
Sales & marketing expenses	(3.5)	(3.4)
General & administrative expenses	(10.7)	(9.5)
Total SG&A expenses	**(14.2)**	**(12.9)**
As a % of sales	*(10.0%)*	*(11.5%)*

The income and expenses related to discontinued operations are directly reported as “Net result from discontinued operations”. Down to the line “Net result after tax from continuing operations”, the Group consolidated P&L account now exclusively and fully reflects the Electronics activities as well as corporate expenses.

Group consolidated P&L (2/2)

In million euros	H1'18	H1'17
Current operating income	**22.5**	**9.4**
Other operating income and expenses	(0.1)	(1.2)
Operating income	**22.5**	**8.2**
Net financial income/(expense)	4.5	(5.9)
Income tax	(2.6)	(0.2)
Net profit / (loss) from continuing operations	**24.4**	**2.1**
Net profit / (loss) loss from discontinued operations	**(1.2)**	**1.1**
Net profit / (loss) (Group share)	**23.2**	**3.1**

The income and expenses related to discontinued operations are directly reported as "Net result from discontinued operations". Down to the line "Net result after tax from continuing operations", the Group consolidated P&L account now exclusively and fully reflects the Electronics activities as well as corporate expenses.

H1’18 net financial result

In million euros	H1’18	H1’17
OCEANEs 2018	(0.4)	(4.6)
Interest expense on loans and credit lines	(0.2)	(0.6)
Interest expense on leasing	(0.4)	(0.7)
Change in valuation of financial assets	0.3	(0.1)
Reversal of depreciation accrual re. cash deposit in Sth Africa	4.6	0.7
Other financial income / (expense)	0.1	(0.8)
Net financial income / (charges)	**4.1**	**(6.2)**
Net foreign exchange result	0.5	0.3
Net financial result	**4.5**	**(5.9)**

The income and expenses related to discontinued operations are directly reported as “Net result from discontinued operations”. Down to the line “Net result after tax from continuing operations”, the Group consolidated P&L account now exclusively and fully reflects the Electronics activities as well as corporate expenses.

Net profit from discontinued operations

Directly reported at the bottom of consolidated P&L

In million euros	H1'18	H1'17
Sales	**0.8**	**0.4**
Expenses	(0.3)	(0.5)
Current operating income/(loss)	**0.5**	**(0.2)**
Other operating income and expenses	(0.8)	(1.8)
Operating income/(loss)	**(0.3)**	**(1.9)**
Net financial income/(expense)	(0.8)	3.0
Income tax	(0.1)	(0.0)
Net profit / (loss) from discontinued operations	**(1.2)**	**1.1**

The income and expenses related to discontinued operations are directly reported as "Net result from discontinued operations". Down to the line "Net result after tax from continuing operations", the Group consolidated P&L account now exclusively and fully reflects the Electronics activities as well as corporate expenses.

H1’18 net cash generated by operating activities (1/2)

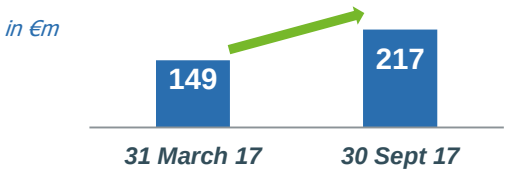
In million euros	H1’18	H1’17
Net profit / (loss)	**23.2**	**3.1**
of which continuing activities	*24.4*	*2.1*
of which discontinued activities	*(1.2)*	*1.1*
Non cash items	**9.6**	**10.5**
of which continuing activities	*10.6*	*16.4*
of which discontinued activities	*(1.0)*	*(5.9)*
EBITDA	**32.8**	**13.6**
of which continuing activities	*34.9*	*18.5*
of which discontinued activities	*(2.1)*	*(4.9)*
Inventories	*(0.7)*	*(3.1)*
Trade receivables	*(1.0)*	*6.9*
Other receivables	*(2.3)*	*(1.1)*
Trade payables	*(13.2)*	*(14.2)*
Other liabilities	*(11.8)*	*(4.8)*
Change in working capital related to discontinued operations	*0.0*	*0.3*
Change in working capital	**(29.0)**	**(15.9)**
of which continuing activities	*(29.0)*	*(16.3)*
of which discontinued activities	*(0.0)*	*0.4*
Net cash generated by / (used in) operating activities	**3.8**	**(2.3)**
of which continuing activities	*5.9*	*2.2*
of which discontinued activities	*(2.1)*	*(4.5)*

H1’18 cash flow statement (2/2)

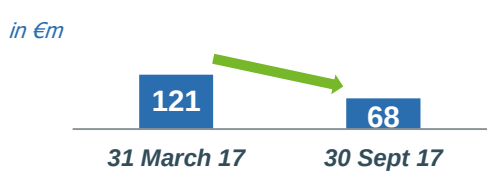
In million euros	H1’18	H1’17
Net cash generated by / (used in) operating activities	**3.8**	**(2.3)**
of which continuing activities	*5.9*	*2.2*
Net cash generated by / (used in) investing activities	**(1.9)**	**(2.2)**
of which continuing activities	*(2.3)*	*(3.0)*
Share capital increases and exercise of stock options	*0.0*	*145.3*
Drawing on credit lines	*-*	*9.2*
Loan repayment (incl. finance leases)	*(9.6)*	*(110.7)*
Net financial charges	*(0.7)*	*(5.3)*
Financing flows from discontinued operations	*1.2*	*(0.0)*
Net cash generated by / (used in) financing activities	**(9.1)**	**38.5**
of which continuing activities	*(10.3)*	*38.5*
Impact of exchange rate fluctuations	**(3.0)**	**0.1**
Change in net cash	**(10.2)**	**34.1**
of which continuing activities	*(9.6)*	*37.8*
Cash & cash equivalents - opening	*109.3*	*49.1*
Cash & cash equivalents - closing	*99.1*	*83.1*

Further strengthening of the balance sheet during H1'18

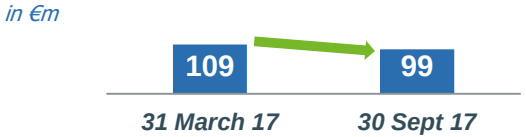
Shareholders' equity



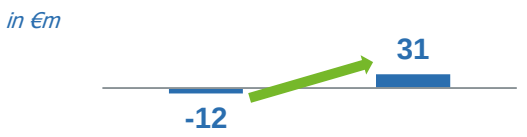
Gross debt



Cash and cash equivalents



Net cash position



Simplified consolidated balance sheet

30 September 2017

In million euros	30 Sept 2017	31 March 2017
Intangible assets	4.1	4.0
Tangible assets and other non current assets	161.8	157.0
Total non-current assets	**165.9**	**161.0**
Current assets	96.0	90.2
Cash and cash equivalents	99.1	109.3
Total current assets	**195.1**	**199.5**
Assets held for sale and discontinued	24.8	29.1
Total assets	**385.9**	**389.6**

In million euros	30 Sept 2017	31 March 2017
Total equity	**216.8**	**149.1**
Long-term financial debt	60.8	104.7
Provisions and other non-current liabilities	17.0	15.2
Total non-current liabilities	**77.9**	**119.8**
Short-term financial debt	6.7	16.2
Current liabilities	74.0	90.7
Total current liabilities	**80.7**	**106.9**
Liabilities from discontinued operations	10.5	13.7
Total liabilities and equity	**385.9**	**389.6**

Rémy Pierre
Chief Financial Officer

1. H118 Results
2. **Outlook for FY'18**
3. Financial model for a new fab
4. Long-term financial model, key takeaways

FY’18 Guidance

- **FY’18 sales expected to grow by around 25% at constant exchange rates**
  - Demand remains robust for RF-SOI products driven by the growing adoption of LTE Advanced standard in the new generation of smartphones
  - Sustained demand for Power-SOI products to be maintained, driven by automotive and “white goods” applications
  - 300mm business expected to benefit from further growth coming from new products (RF-SOI, FD-SOI, Emerging SOI)
- **FY’18 Electronics EBITDA margin expected at around 25%**
  - Sustained operating profitability to be maintained at Bernin I which is expected to continue to operate at full capacity
  - Higher operating leverage expected at Bernin II with a utilization rate that should reach around 50% of capacity towards the end of FY’18 / early FY’19

Capex

- **Decision to go ahead with Bernin II capex has been made**
  - € 40m long-planned investment at Bernin II to be spread between FY'18 and FY'19
  - Process has actually started - first part of capex already incurred
  - Will progressively boost Bernin II FD-SOI production capacity from 100k wafers to >350k wafers per year
- **Investment in Singapore plant**
  - Net restarting cost for Soitec would amount to approx. € 20m to be spread over 24 months
  - Total contemplated investment would reach approx. US$ 270m to bring production capacity up to 800k wafers per year
    - Capex to include the qualification line worth US$ 40m to be spent over 24 months following decision
    - Customer commitments to trigger the gradual roll out of capex

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Financial model for a new fab (stand-alone)

300mm diameter wafers	New green field	
Annual capacity	**1 M wafers**	
Total capex	**500 MUSD**	***Multiple funding and partnership options***
Building + Clean room	*150 MUSD*	
Tooling	*350 MUSD*	
Revenues	**450 – 500 MUSD**	***Depending on product mix***
EBITDA margin	*>30%*	
Working capital / Sales	*~17%*	

Rémy Pierre
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Long-term financial model

	Projected Model*
Revenues	**>1 Bn EUR***
EBITDA margin	**>30%**
Tax rate	**~10%**

Assuming full capacity in Bernin, Singapore and new Fab
i.e. ~2.9 M wafers 300mm equivalent

** Assuming EUR/USD exchange rate of 1.15*

Financials – Key takeaways

1. FY18 – Operating model already delivers **25% EBITDA margin** (with Bernin 2 loading below 50% in FY18)
2. Assuming the right product mix: **1M 300mm wafer** fab can deliver **450-500 MUSD revenues** and **>30% EBITDA margin**
3. Multiple opportunities to **operate** and **finance** new wafer fabs (partnerships)
4. Long term financial model can be securely delivered through **gradual capacity expansion plans** based on **long-term customer commitments**

Agenda

1. CEO Introduction
2. Communication & Power
3. Digital Electronics

Q&A session

4. Industrial Operations
5. Financials
6. **CEO Closing Remarks**

Q&A session

CEO closing remarks

Soitec vision statement

“To be recognized as a leader in innovative semiconductor standards for products shaping the future”

Key takeaways

1. Multiple growth drivers for the semiconductors industry
   Creating mid/long-term growth opportunities for Soitec: TAM x3 to x6 vs 2016
2. Unique innovation model to develop a products portfolio bringing high value differentiation to our customers in each strategic market
3. Robust, sustainable and agile manufacturing model to support profitable growth
4. Business model to generate significant cash flow and strenghten balance sheet
   Capacity expansion driven by partnerships and customer commitments

A PROFITABLE GROWTH STORY FOR THE NEW SOITEC


Q&A
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