CAPITAL MARKETS DAY

CAPITAL MARKETS DAY

Paris, June 13, 2019

Disclaimer

This document was prepared by Soitec (the “Company”) on June 13th, 2019 in connection with the announcement of the fiscal year 2018-2019 (“FY’19”) results.

This document is provided for information purposes only. It is public information only.

The Company’s business operations and financial position is described in the Company’s registration document 2017-2018 registered by the Autorité des marchés financiers (the “AMF”) on June18th, 2018 under visa D.18-0586 (the “Document de Référence”) and in the Company’s FY’19 half-year report released on November 28th, 2018. Copies of the Document de Référence and of the FY’19 half-year report are available in French and English languages through the Company and may as well be consulted and downloaded on the Company’s website (www.soitec.com). The Document de Référence is also available on the AMF’s website (www.amf-france.org).

For information, the Company’s registration document 2018-2019 is expected to be registered by the AMF on July 4, 2019.

Your attention is drawn to the risk factors described in Chapter 4 of the Document de Référence. A review of these risk factors has been conducted after the closing of FY’19 first half and no new risk was found.

This document contains summary information and should be read in conjunction with the Document de Référence and the FY’19 half-year report. In the event of a discrepancy between this document and the Document de Référence or the FY’19 half-year report, the Document de Référence or, as the case may be, the FY’19 half-year report, shall prevail.

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This document contains certain forward-looking statements. These forward-looking statements relate to the Company’s future prospects, developments and strategy and are based on analyses of earnings forecasts and estimates of amounts not yet determinable. By their nature, forward-looking statements are subject to a variety of risks and uncertainties as they relate to future events and are dependent on circumstances that may or may not materialize in the future. Forward-looking statements are not a guarantee of the Company’s future performance.

The Company’s actual financial position, results and cash flows, as well as the trends in the sector in which the Company operates may differ materially from those contained in this document. Furthermore, even if the Company’s financial position, results, cash-flows and the developments in the sector in which the Company operates were to conform to the forward-looking statements contained in this document, such elements cannot be construed as a reliable indication of the Company’s future results or developments.

The Company does not undertake any obligation to update or make any correction to any forward-looking statement in order to reflect an event or circumstance that may occur after the date of this document. In addition, the occurrence of any of the risks described in Chapter 4 of the Document de Référence may have an impact on these forward-looking statements.

This document does not constitute or form part of an offer or a solicitation to purchase, subscribe for, or sell the Company’s securities in any country whatsoever. This document, or any part thereof, shall not form the basis of, or be relied upon in connection with, any contract, commitment or investment decision.

Notably, this document does not constitute an offer or solicitation to purchase, subscribe for, or sell securities in the United States. Securities may not be offered or sold in the United States absent registration or an exemption from the registration under the U.S. Securities Act of 1933, as amended (the “Securities Act”). The Company’s shares have not been and will not be registered under the Securities Act. Neither the Company nor any other person intends to conduct a public offering of the Company’s securities in the United States.

Capital Markets Day – Agenda

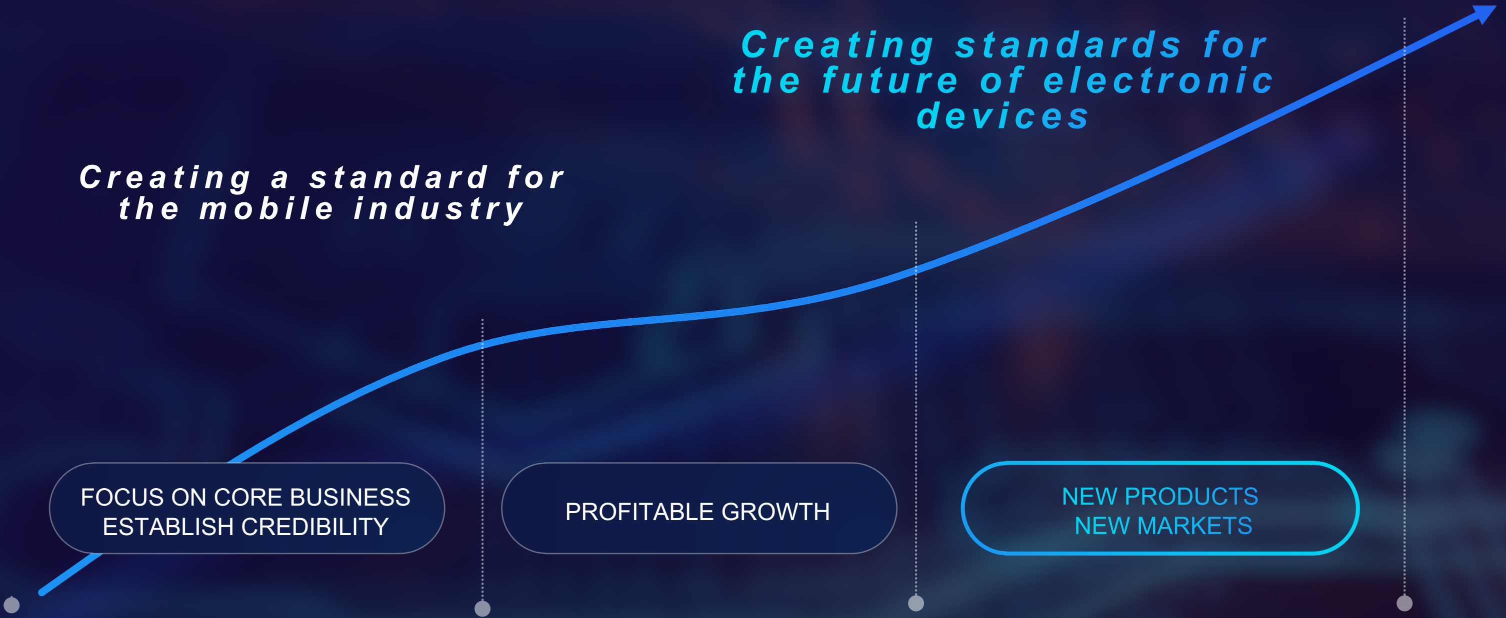
Time	Duration	Speaker	Content
13h25-13h30	05min	Steve Babureck - VP Corporate Development & Investor Relations	Introduction, disclaimer, agenda overview
13h30-14h00	30min	Paul Boudre - Chief Executive Officer	Soitec amazing journey & outlook
14h00-14h30	30min	Thomas Piliszczuk - EVP Strategy	Soitec strategic end markets, footprint & TAM
14h30-15h00	30min	Rémy Pierre - Chief Financial Officer	FY19 results, FY20 guidance
15h00-15h30	30min	Q&A	Focus on strategy & financials
15h30-15h45	15min	Break	
15h45-16h15	30min	Bernard Aspar - EVP Global Business Units	Global business overview, products & value proposition
16h15-16h45	30min	Christophe Maleville - Chief Technology Officer	Innovation strategy, activities, ecosystem
16h45-17h15	30min	Cyril Menon - EVP Operations	Operations footprint & expansion plans
17h15-17h45	30min	Q&A	Focus on business, innovation & operations
17h45-18h00	15min	Paul Boudre - Chief Executive Officer	Wrap up – Journey & Outlook

CAPITAL MARKETS DAY

Soitec, an amazing journey

Paul Boudre
Chief Executive Officer

An amazing journey in the semiconductor world… where technology pushes boundaries



Creating standards for the future of electronic devices

Creating a standard for the mobile industry

FOCUS ON CORE BUSINESS
ESTABLISH CREDIBILITY

PROFITABLE GROWTH

NEW PRODUCTS
NEW MARKETS

2015/ 2016
2016
Sales
€233m

2018/ 2019
2019
Sales
€444m

2021/ 2022
2022
Sales
~ €900m*

FULL CAPACITY
FULL
Sales
~ €1,4Bn*

*outlook based on €/$ at 1.13

Commitment met
Strong fundamentals settled

Value creation for every Soitec stakeholder

EMPLOYEES

large scale recruitment

+ 300 in 2018

1,450

employees worldwide

CUSTOMERS

High value

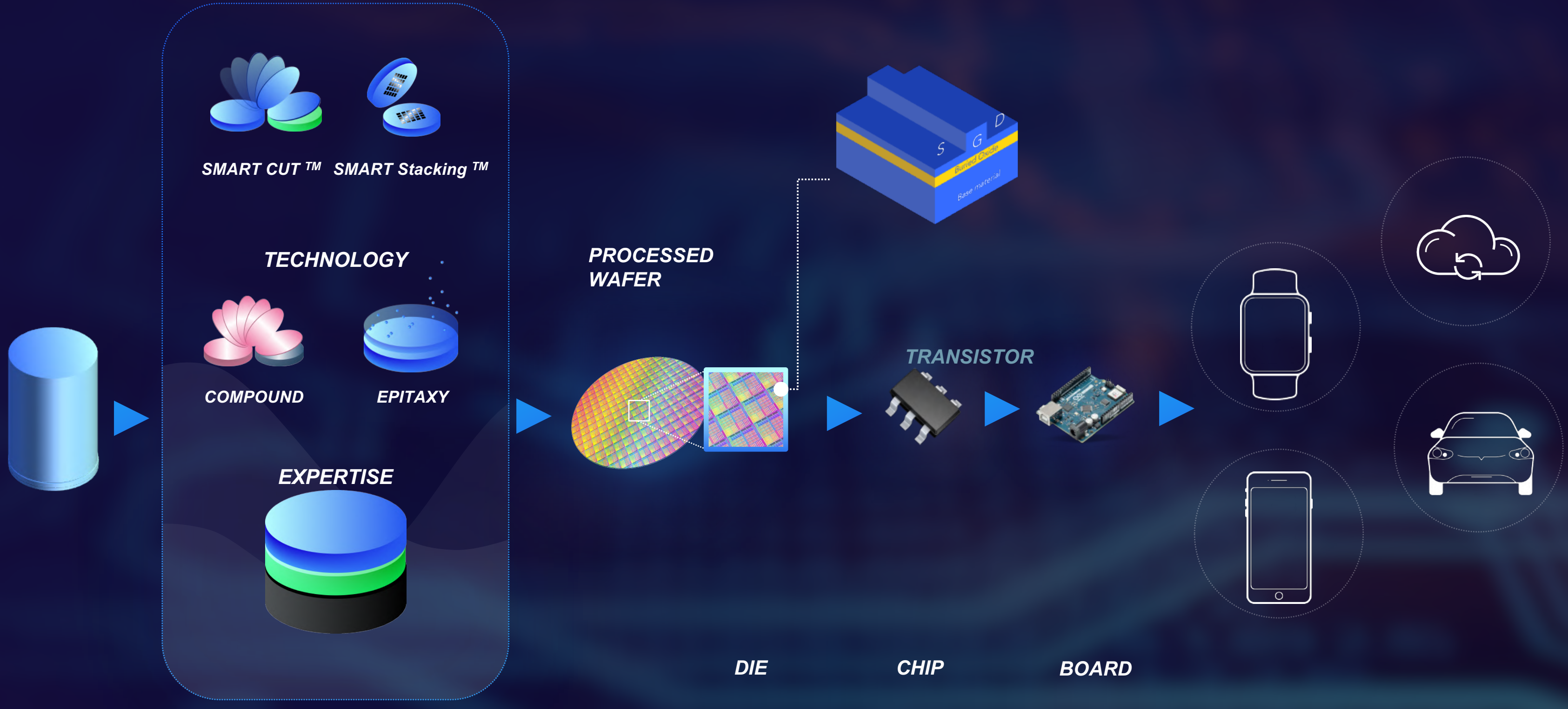
differentiation in each strategic market

SHAREHOLDERS

Share +700%

VS +25% for SBF 120 over the last 3 years

A unique competitive position in the value chain



SMART CUT ™

SMART Stacking ™

TECHNOLOGY

COMPOUND

EPITAXY

EXPERTISE

PROCESSED
WAFER

TRANSISTOR

DIE

CHIP

BOARD

BULK
WAFERS

ENGINEERED SUBSTRATES

EXTENSIVE
EXPERTISE

DIFFERENTIATION

Our pillars to build a unique position

SITRI

LMI UMR CNRS 5615 Laboratoire Multimatériaux Interfaces

Agency for Science, Technology and Research SINGAPORE

leti ceatech

CEMES

UCL

imec

NUS National University of Singapore

ShinEtsu

Fraunhofer

TU WIEN TECHNISCHE UNIVERSITÄT WIEN Vienna | Austria

INNOVATION PLATFORMS

soitec

AGILE MANUFACTURING
Make or Buy

GlobalWafers

ShinEtsu

SIMGUI

PRODUCT LICENSING

Technology pushes boundaries

soitec

Semiconductor engineered substrates growing into a multi-billion $ market

ENGINEERED SUBSTRATES

- SOI
- GaN
- SiC
- InGaNOS
- POI
- InP
- Si epitaxy

SEMICONDUCTOR CHIPS

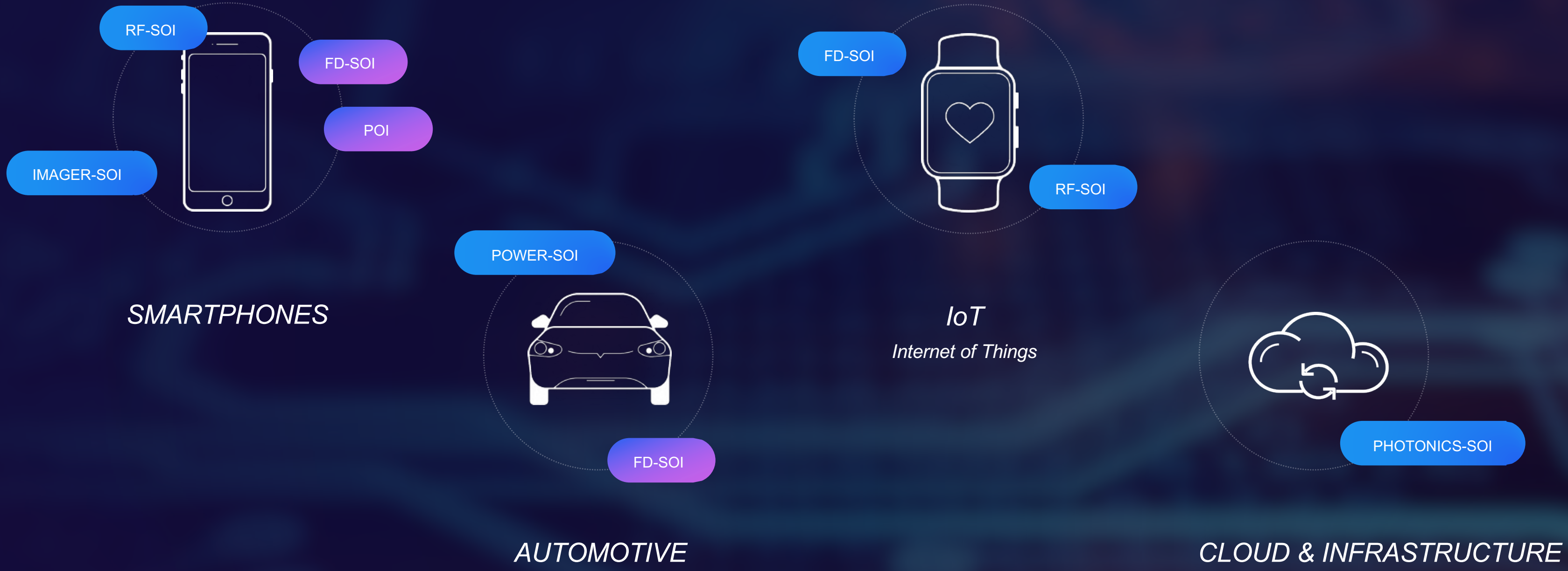
- Application processors
- RF chips
- AIoT
- Sensors
- Photonics
- Imaging

ELECTRONIC DEVICES

- ADAS/EV
- 4G/5G
- AIoT
- Healthcare
- Industry 4.0
- Cloud
- AR/VR

Increasing engineered substrate content in 4 strategic end-markets

TODAY



RF-SOI
FD-SOI
POI
IMAGER-SOI

SMARTPHONES

POWER-SOI
FD-SOI

AUTOMOTIVE

FD-SOI
RF-SOI

IoT
Internet of Things

PHOTONICS-SOI

CLOUD & INFRASTRUCTURE

Engineered substrate content growing across markets and applications

TOMORROW

New Market Segments

SMARTPHONES
- RF-SOI
- GaN RF
- FD-SOI
- POI
- IMAGER-SOI
- Power-SOI
- Displays

AUTOMOTIVE
- POWER-SOI
- Sensors
- RF-SOI
- SiC for EV
- GaN Power
- FD-SOI

IoT

Internet of Things
- Displays
- FD-SOI
- POWER-SOI
- RF-SOI

CLOUD & INFRASTRUCTURE
- RF-SOI
- FD-SOI
- GaN RF
- GaN Power
- PHOTONICS-SOI

Soitec leadership expansion in multiple markets

FY24 SAM*
~1.6-2.4 Billion $
4G/5G – Auto – IoT – Cloud

SOI products portfolio

Specialty SOI

FD-SOI

RF-SOI

CAGR ~15-25% between FY19-24

New products:
> 500 M$ SAM* in FY24
5G – Auto – Sensors

Beyond SOI – POI & GaN

EpiGaN

Piezo-on-Insulator

New opportunities:
>1 Billion $ SAM*
Displays – Auto – Imaging…

Compounds semi.

InGaNOS, SiC,…

* Source: Soitec market estimates in FY24

Ready to achieve our new ambition

Ready to execute: Management's team

GLOBAL BUSINESS UNITS
Bernard Aspar

CUSTOMER GROUP
Calvin Chen

LEGAL
Joséphine Deege-Mansour

HUMAN RESOURCES
Pascal Lobry

INNOVATION
Christophe Maleville

EXECUTIVE MANAGEMENT
Paul Boudre
CEO

ADVISOR TO THE CEO
Carlos Mazure

QUALITY & DATA MANAGEMENT
Laurent Maumet

INDUSTRIAL OPERATIONS
Cyril Menon

PROCUREMENT
Philippe Pellegrin

FINANCE
Rémy Pierre

STRATEGY
Thomas Piliszczuk

Ready to achieve our new ambition

Establish our leadership across all engineered substrates

OUTLOOK THROUGH OUR JOURNEY

2018/2019

Sales

€444m

EBITDA margin 34,3%

2019/2020

Sales

+30%PCC

EBITDA margin ~30%

2021/2022

Sales

~€900m*

EBITDA margin ~31%

**outlook based on €/$ at 1.13*

CAPITAL MARKETS DAY

Soitec, an amazing journey

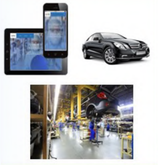
Thomas Piliszczuk
EVP Strategy

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

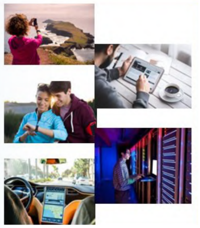
Soitec has been part of your daily life for almost 3 decades

2000-2010
PC
Gaming
Automobile

Since 2010
Smartphones
Automobile
Industry



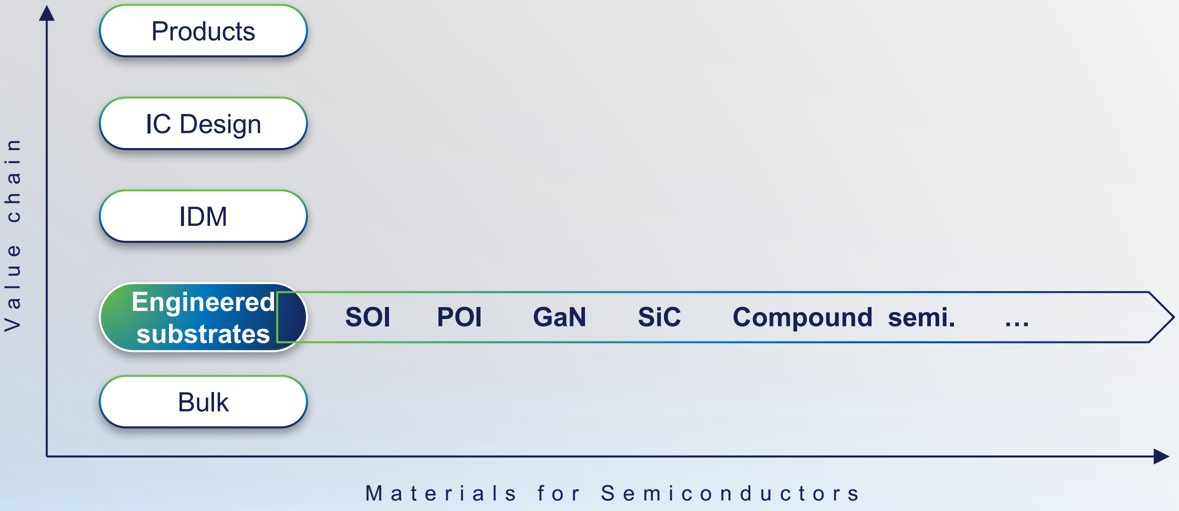
2015 +
Electronics for everyday use (4G and IoT)



2020 +
Beginning of 5G and AI

Beyond 2025
in 5G mmW World

Soitec strategic plan – our vision into action



Products

IC Design

IDM

Engineered substrates

SOI POI GaN SiC Compound semi. …

Bulk

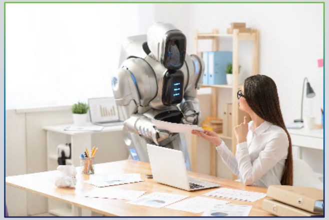
Value chain

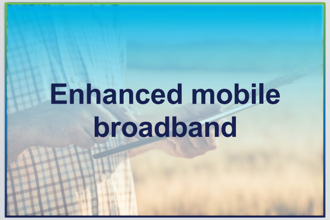
Materials for Semiconductors

- **Protect core business**
- **Expand core business**
- **Extend into adjacent markets**
- **Apply flexible operating model**
- **Strengthen global footprint**

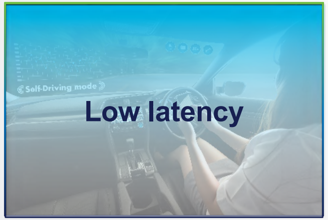
Four key markets & three mega-trends

5G – (r)evolution in business & services applications





Enhanced mobile broadband

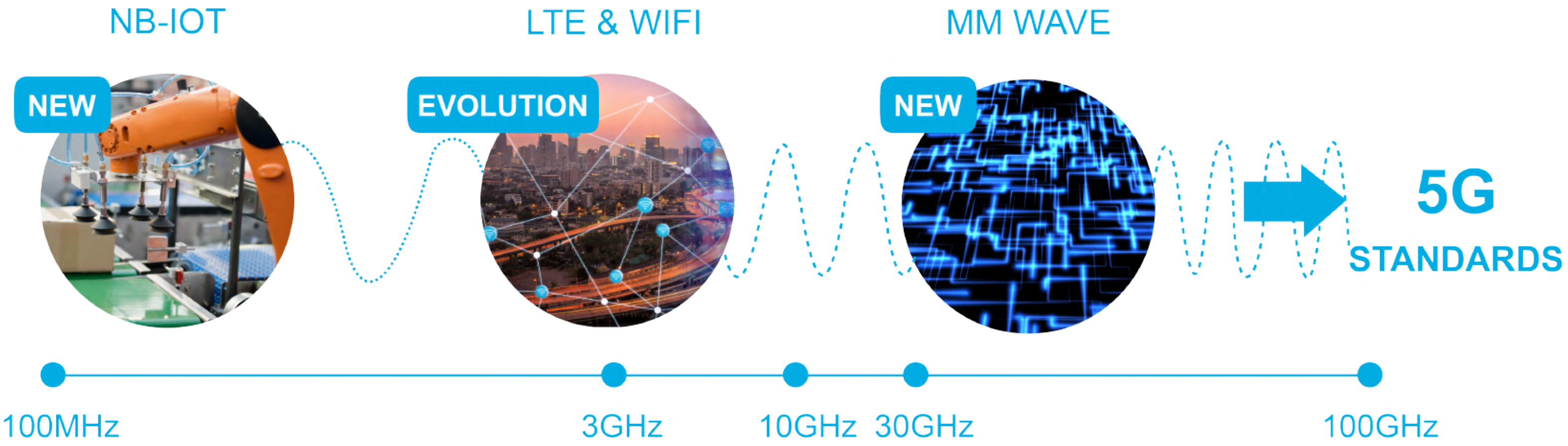


Low latency

Massive M2M connectivity

Ultra-reliability

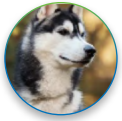
5G: dramatic extension of the RF spectrum

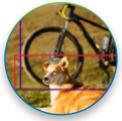


5G is not only about 10x larger spectrum – it is a whole New Radio (NR) system

AI is about transforming data into meaningful information

AI Everywhere


Classification


Object detection


Speech detection


Data analysis

Key drivers

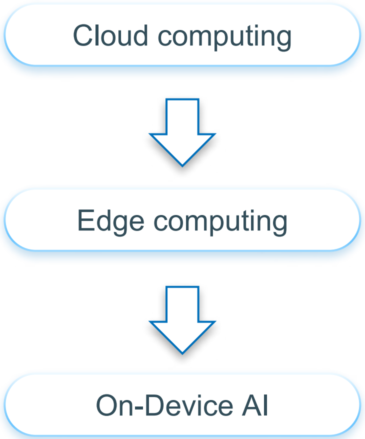
Latency / reliability

Data privacy

Power consumption

Cost

AI Computing trend

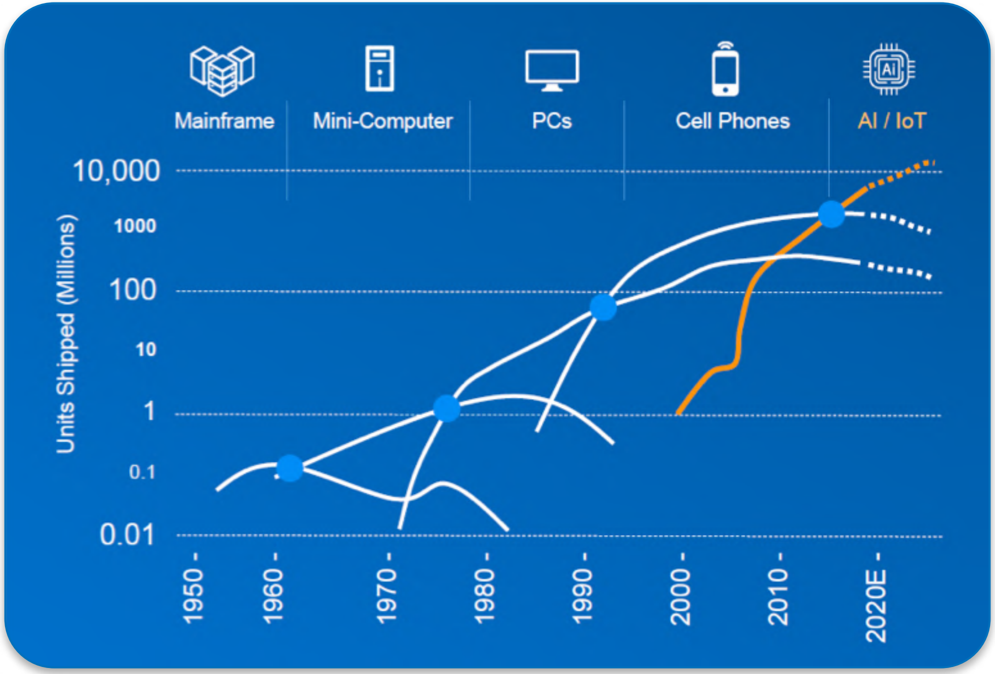

Cloud computing

Edge computing

On-Device AI

AI for IoT: new computing paradigm

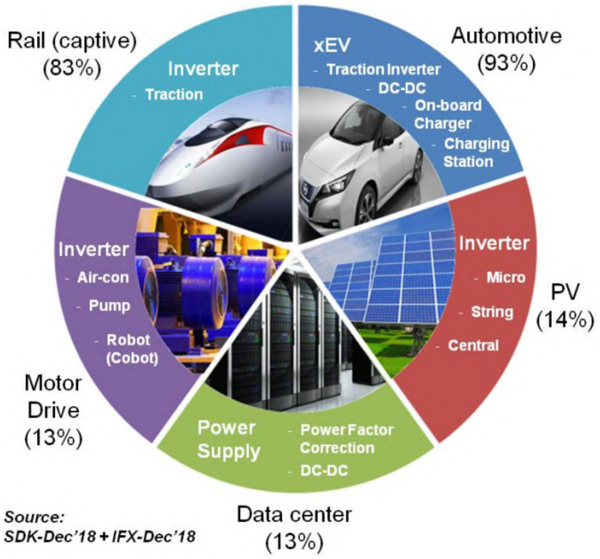
The AI / IoT era will create new industry leaders



Sources: Jefferies, NXP

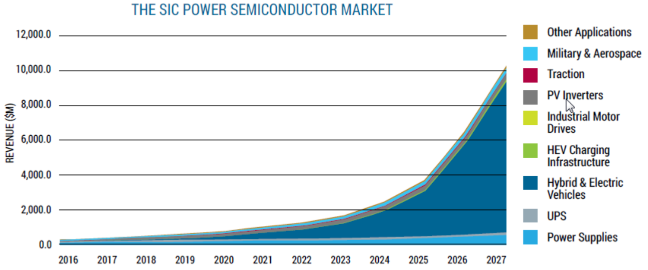
Exponential growth in high voltage power applications

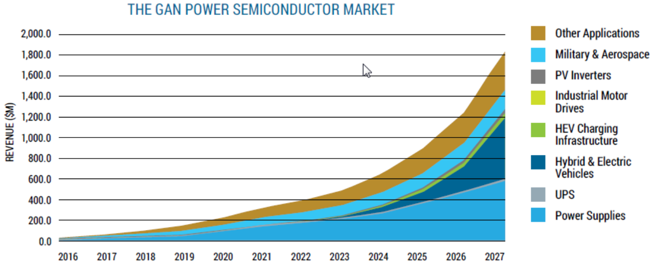
High growth applications (CAGR – '17~'25)



Source:
SDK-Dec'18 + IFX-Dec'18

SiC and GaN Power semiconductor forecast

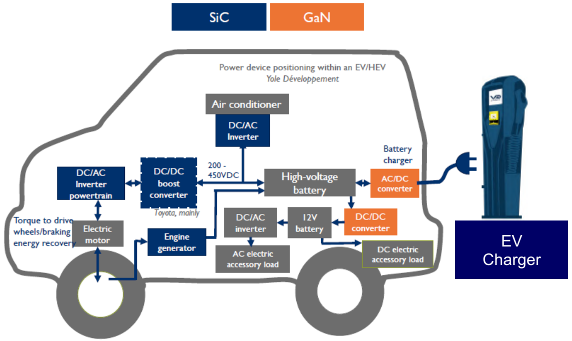




Source: IHS Markit'18

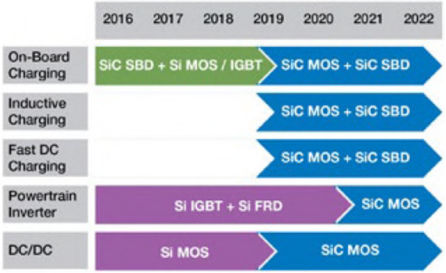
Electrical vehicle
First mass market for SiC

Positioning of SiC and GaN in xEV



Source: Yole - PowerSiC'17

Potential of SiC to replace Silicon in xEV

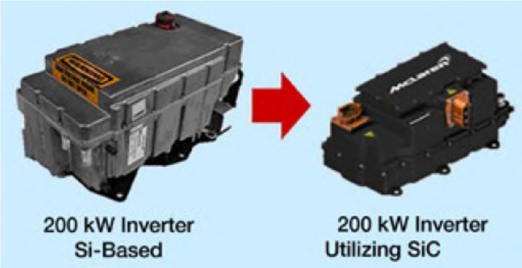


	2016	2017	2018	2019	2020	2021	2022
On-Board Charging	SiC SBD + Si MOS / IGBT			SiC MOS + SiC SBD			
Inductive Charging				SiC MOS + SiC SBD			
Fast DC Charging				SiC MOS + SiC SBD			
Powertrain Inverter	Si IGBT + Si FRD					SiC MOS	
DC/DC	Si MOS			SiC MOS			

Source: Rohm - BodoPowerSystems'17

SiC vs. Silicon

Performance improvement and size reduction in inverter



From Si-IGBT based module to SiC MOSFET based module:

- miniaturization: **30%**
- weight Reduction: **40%**
- high power density: **>1.5times**

Extra 60 miles of cruising range!

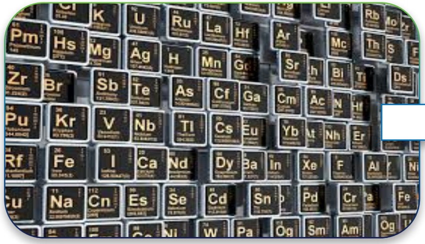
Source: Rohm

Many challenges to tackle for our customers

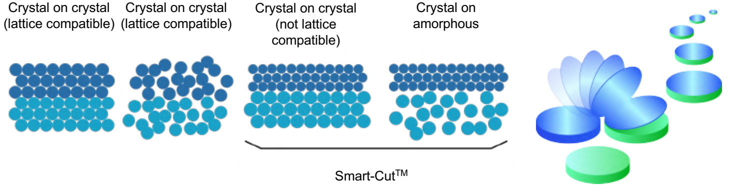
- Energy efficiency
- Communication
- Function integration
- Better sensors and displays
- Form factor
- Reliability and security
- Cost for mass adoption
- Platform roadmap

Engineered substrates allow us to push boundaries

Using more MATERIALS



Applying unique PROCESSES



Crystal on crystal (lattice compatible)

Crystal on crystal (lattice compatible)

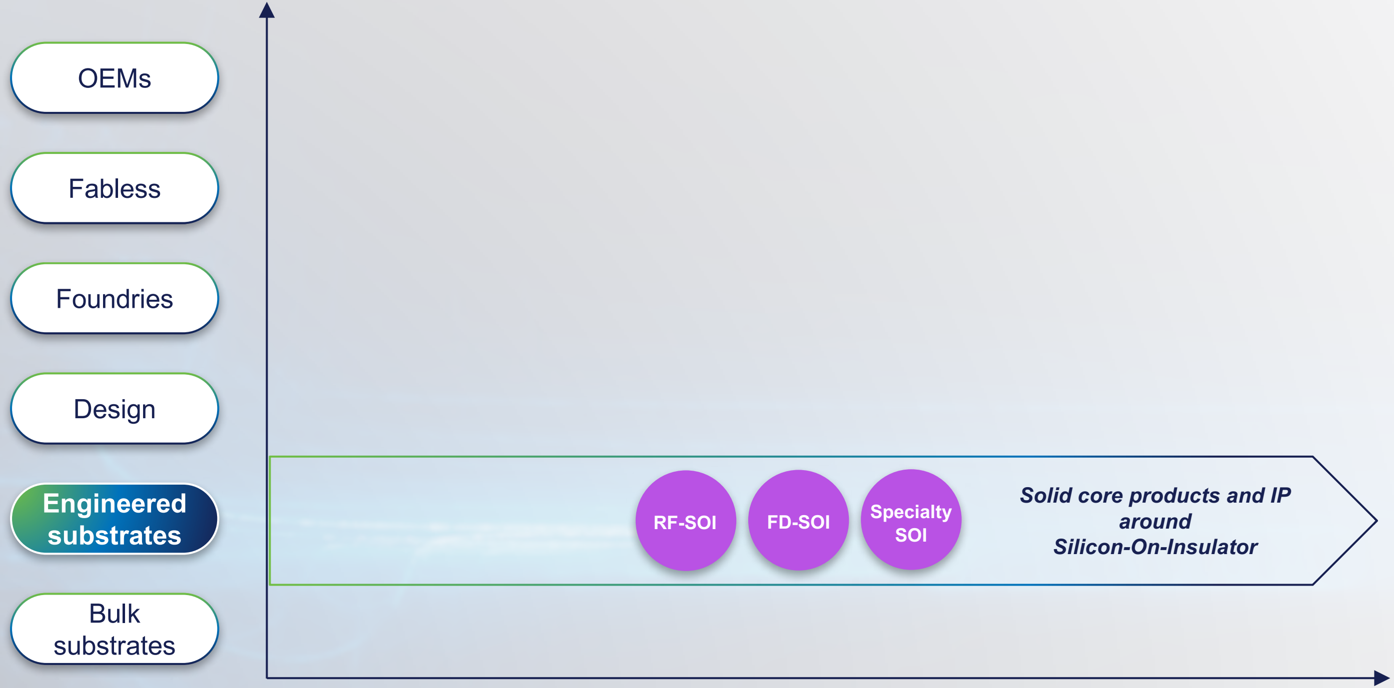
Crystal on crystal (not lattice compatible)

Crystal on amorphous

Smart-Cut^{TM}
Thin & highly uniform layers

To enable new APPLICATIONS

Established leadership in engineered substrates



OEMs

Fabless

Foundries

Design

Engineered substrates

Bulk substrates

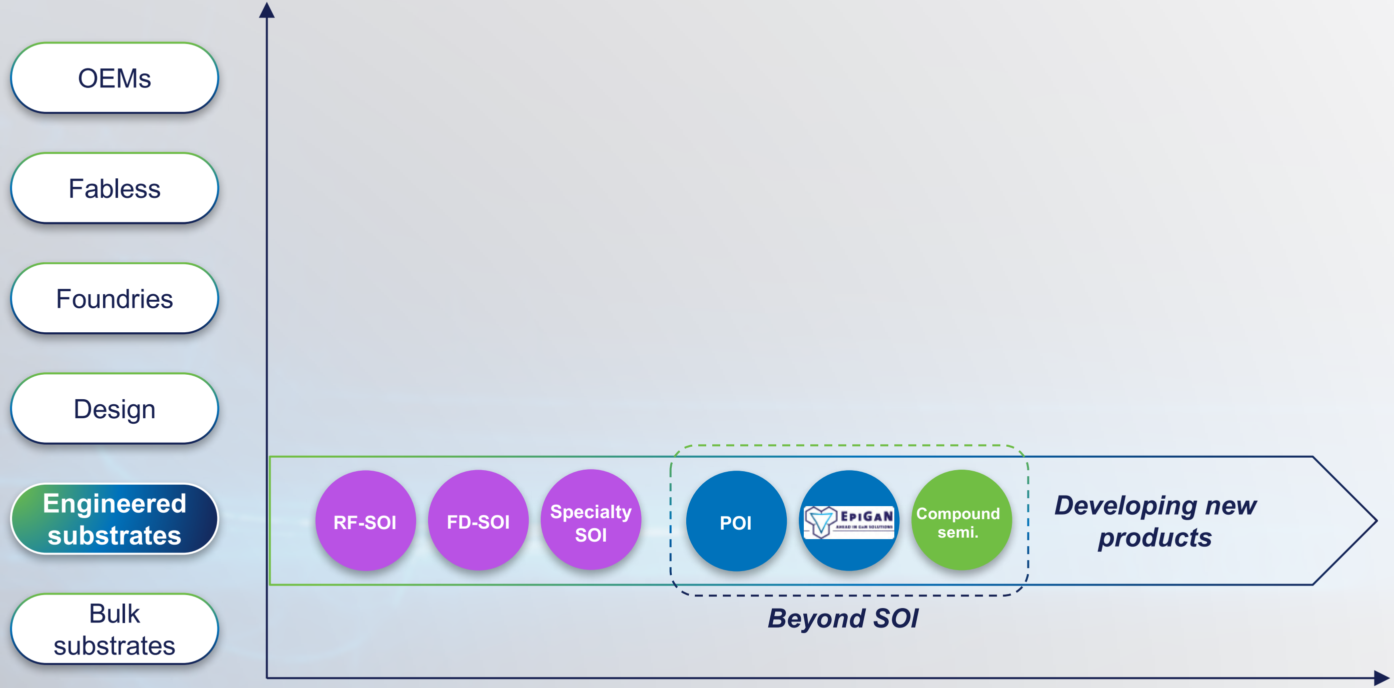
RF-SOI

FD-SOI

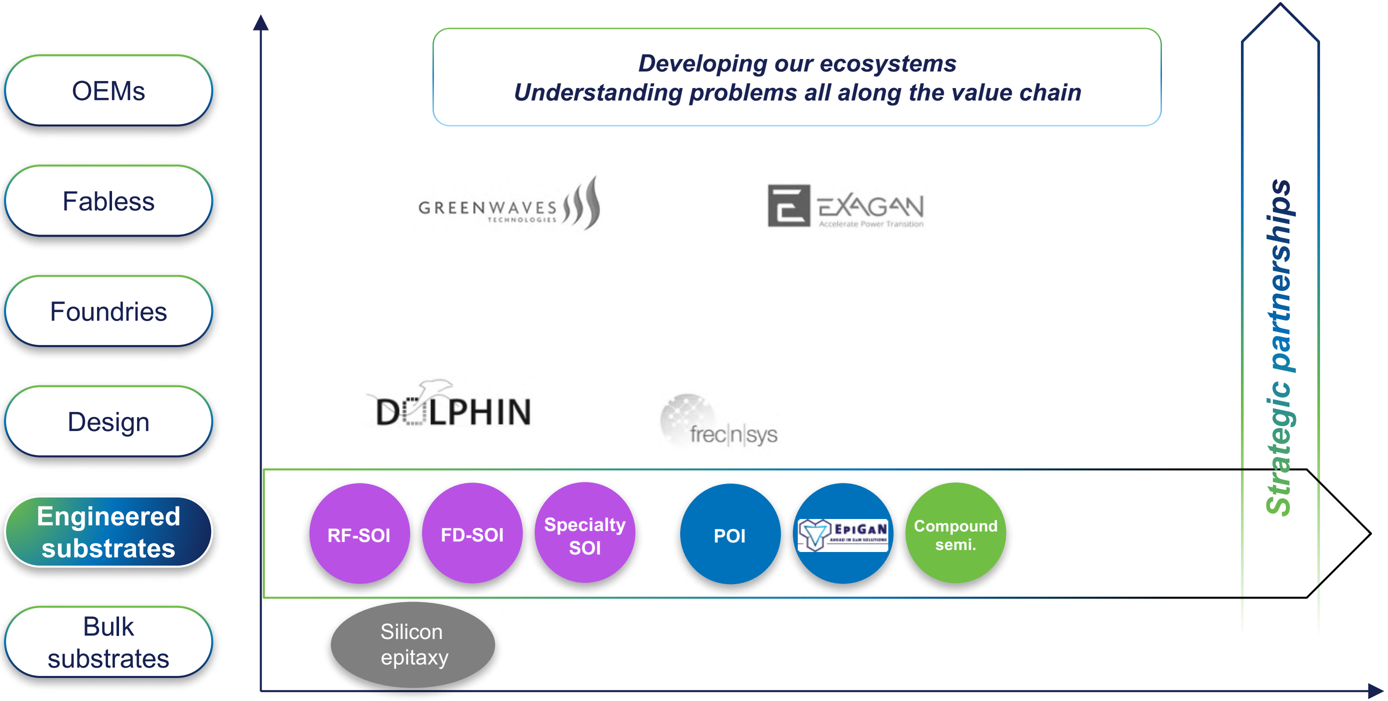
Specialty SOI

Solid core products and IP around Silicon-On-Insulator

Expanding our leadership in engineered substrates



Expanding our leadership in engineered substrates



OEMs

Fabless

Foundries

Design

Engineered substrates

Bulk substrates

Developing our ecosystems
Understanding problems all along the value chain

RF-SOI

FD-SOI

Specialty SOI

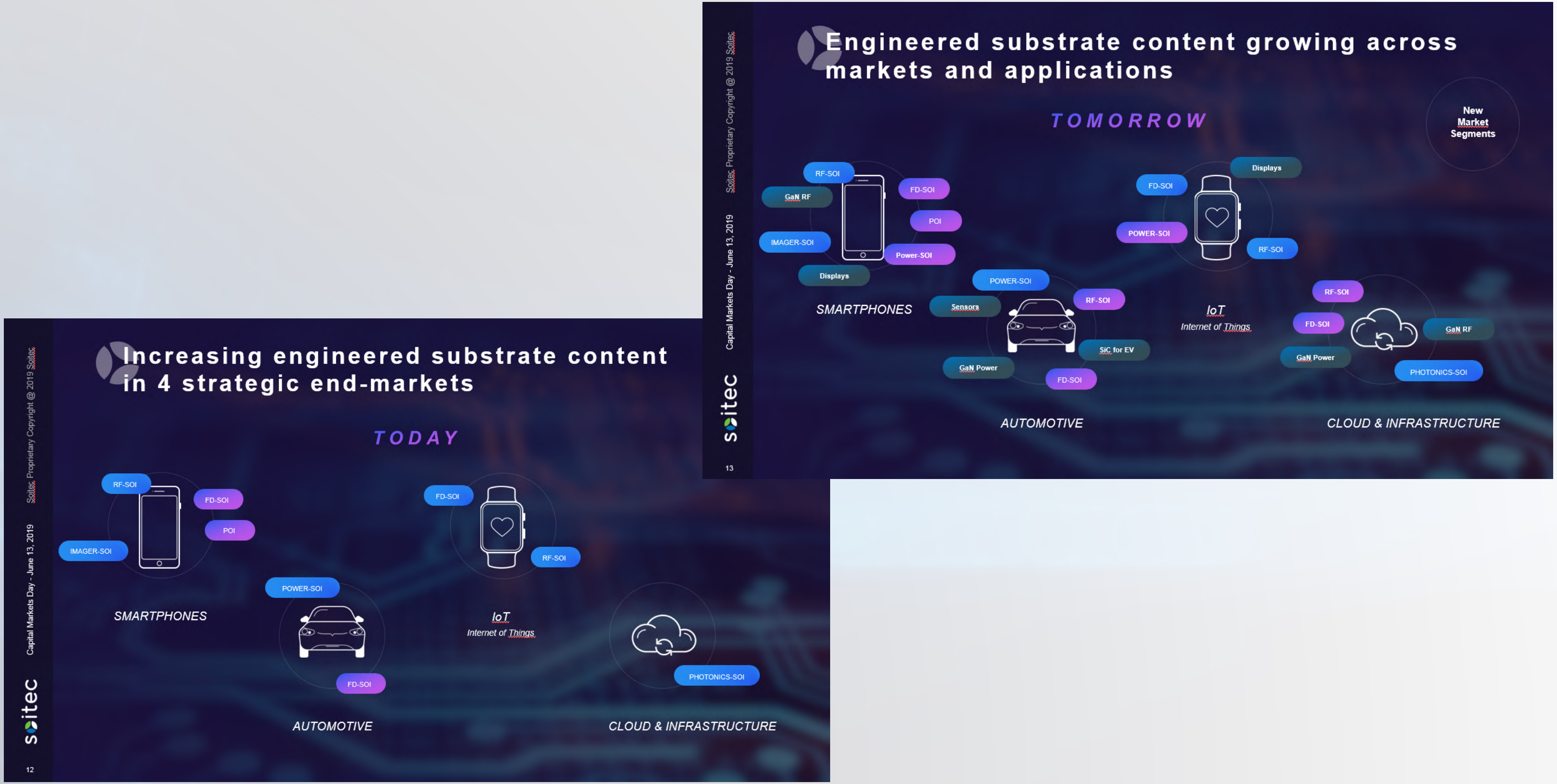
POI

Compound semi.

Silicon epitaxy

Strategic partnerships

Engineered substrates content growing across markets and applications



Engineered substrate content growing across markets and applications

TOMORROW

New Market Segments

SMARTPHONES
- RF-SOI
- GaN RF
- IMAGER-SOI
- Displays
- FD-SOI
- POI
- Power-SOI

AUTOMOTIVE
- POWER-SOI
- Sensors
- RF-SOI
- SiC for EV
- GaN Power
- FD-SOI

IoT
Internet of Things
- FD-SOI
- Displays
- POWER-SOI
- RF-SOI

CLOUD & INFRASTRUCTURE
- RF-SOI
- FD-SOI
- GaN RF
- GaN Power
- PHOTONICS-SOI

Increasing engineered substrate content in 4 strategic end-markets

TODAY

SMARTPHONES
- RF-SOI
- FD-SOI
- POI
- IMAGER-SOI

AUTOMOTIVE
- POWER-SOI
- FD-SOI

IoT
Internet of Things
- FD-SOI
- RF-SOI

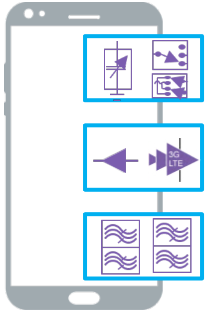
CLOUD & INFRASTRUCTURE
- PHOTONICS-SOI

Smartphones

4G fueling current growth Beginning of 5G deployment

4G

5G



RF-SOI
for RF FEM

FD-SOI
for 5G mmW
Transceivers

POI
for RF Filters

GaN
for 5G PA

FD-SOI value proposition recognized for several critical applications

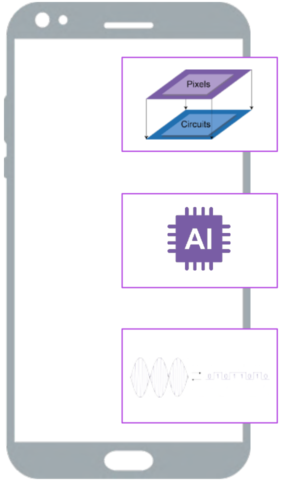


Image signal processors

Artificial intelligence system-on-chips

mmW short distance communication

3D image sensors for facial recognition and AR/VR. High res displays

Facial recognition

Imager-SOI & Compound for
face facing 3D sensor

InGaNOS for MicroLED
of functional display
FD-SOI for display
driver IC

Free form-factor display

Position & object recognition

Imager-SOI & Compound for
world facing 3D sensor

Smartphones – Soitec technologies content

2019

4G LTE Advanced pro

RF-SOI	Spec SOI	POI
45mm^2	30mm^2	1mm^2

2020-2022

5G sub 6GHz

RF-SOI	Spec SOI	POI	FD-SOI
55mm^2	30mm^2	8mm^2	60mm^2

2022 and beyond

5G mmW

RF-SOI	Spec SOI	POI	FD-SOI
120mm^2	30mm^2	16mm^2	120 mm^2

Front End Module
LNA
Switches
Antenna Tuner

Front End Module
Filters

5G mmW RFIC
FEM
Transceiver

Control Functions
DDI
ISP

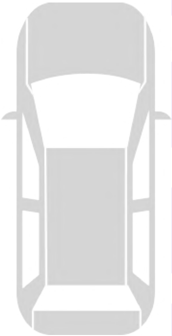
3D Imaging
Sensor

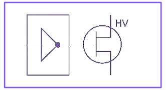
Notes:
GaN RF not included
High-end market segment

mm^2 represent the estimated overall Soitec technologies content
RF-SOI, FD-SOI double counting in 5G mmW RF-IC

Automotive

GaN, SiC and Power-SOI to benefit from structural semi content increase





Power-SOI/GaN for gate drivers

Power-SOI for Class D audio amplifiers

Power-SOI for in-vehicle networking

SiC, GaN for On-Board Chargers

FD-SOI to ramp for ADAS and infotainment application processors

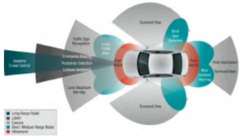
FD-SOI for ASICs of radars/Lidar/Camera

FD-SOI for MCU's for various functions

FD-SOI for AI chips of image classification & voice recognition

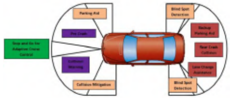
FD-SOI for Multimedia application processors

Engineered substrates for high sensitive sensor and bright display



Imager/Photonics-SOI for Lidar sensor

FD-SOI for Radar sensor FEM



MicroLED using InGaNOS for In-vehicle display

Automotive – Soitec technologies content

2019

Connected Car

100 mm^2	40mm^2	5mm^2	1200 mm^2
Power-SOI	FD-SOI	RF-SOI	GaN/SiC Power

2020-2022

Smart car & EVs

120 mm^2	130 mm^2	10mm^2	1200 mm^2
Power-SOI	FD-SOI	RF-SOI	GaN/SiC Power

2022 and beyond

Autonomous driving

140 mm^2	300 mm^2	18mm^2	1600 mm^2	130 mm^2
Power-SOI	FD-SOI	RF-SOI	GaN/SIC Power	InGaNOS

RF-SOI
Connectivity

InGaNOS
In-Vehicle display

FD-SOI
AP for ADAS and multi-media, MCU

FD-SOI
Radar sensor FEM

SiC, GaN
On-board charger

Power-SOI
Transceivers, Gate driver, Class D Amplifier

Note:
High-end; full hybrid; electrical vehicle market segment

mm² represent the estimated overall Soitec technologies content

IoT

FD-SOI offers low power operation for industrial & consumer applications


GPS for


Ear buds

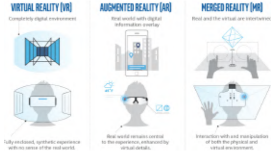

Smarthome


Drones


Security cameras


Smart meters

Together with 5G, **FD-SOI** & **InGaNOS** enable AR/VR/MR applications

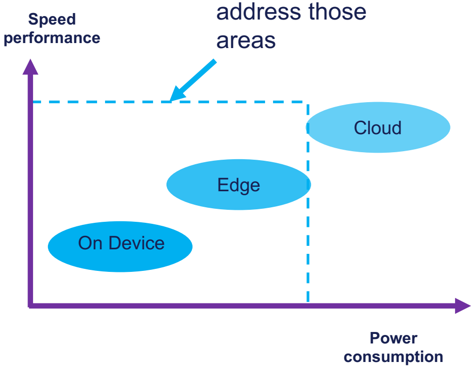


FD-SOI for ASICs of AR/VR/MR

InGaNOS for MicroLED display of AR/VR & Smartwatch

FD-SOI for IoT (MCU+Memory +RF)

FD-SOI offers the best value proposition for edge- AI computing



FD-SOI will now address those areas

IoT – Soitec technologies content

2019

IoT

60mm² FD-SOI

1mm² RF-SOI

FD-SOI
GPS, ASICs

RF-SOI
Connectivity

FD-SOI
ASICs

2020-2022

AIoT

130 mm² FD-SOI

300 mm² InGaNOS

3mm² RF-SOI

FD-SOI
GPS, ASICs

InGaNOS
MicroLED Display

RF-SOI
Connectivity

FD-SOI
ASICs, Edge AI processor

FD-SOI
ASICs

InGaNOS
MicroLED Display

2022 and beyond

Massive AIoT

150 mm² FD-SOI

350 mm² InGaNOS

4mm² RF-SOI

FD-SOI
GPS, ASICs, 5G Module

InGaNOS
MicroLED Display

RF-SOI
Connectivity

FD-SOI
ASICs, Edge AI processor , 5G module

FD-SOI
ASICs

InGaNOS
MicroLED Display

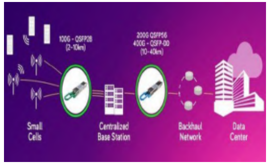
mm² represent the estimated overall Soitec technologies content

Cloud & 4G/5G infrastructure

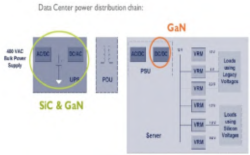
Photonics-SOI for high data rate and low latency for 4G/5G base station & data center

Photonics-SOI for optical transceiver of data center

Photonics-SOI for optical transceiver of 5G infrastructure



RF-SOI, FD-SOI, GaN, SiC for 5G base station & data center

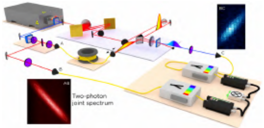


GaN, SiC for data center power supplier of hyper computing

GaN for power amplifier of 5G base station

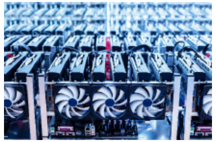
RF-SOI and FD-SOI for 5G base station

FD-SOI, Photonics-SOI, GaN for hyper scale & secure computing



Photonics-SOI for quantum computing

FD-SOI for high efficient hyper computing of data center, crypto-currency mining



FD-SOI for broadband communications in Low Earth Orbit (LEO) satellites

Cloud & 4G/5G infrastructure – Soitec technologies content

2019

Data center & 4G+ Base station

500 mm^2	400 mm^2	72mm^2	40mm^2
RF-SOI	GaN RF	GaN/SiC Power	Photonics-SOI

RF-SOI
5G Baseband FEM

Photonics-SOI
Silicon photonics for optical transceiver

GaN, SiC
Power supplier

2020-2022

Data center & 5G Base station

8000 mm^2	1400 mm^2	220 mm^2	110 mm^2	15000 mm^2
RF-SOI	GaN RF	GaN/SiC Power	Photonics-SOI	FD-SOI

GaN, SiC
Power supplier

Photonics-SOI
Silicon photonics for optical transceiver

RF-SOI
5G Baseband FEM

FD-SOI
Transceiver

Photonics-SOI
Silicon photonics for optical transceiver

2022 and beyond

Hyper scale computing

8000 mm^2	1500 mm^2	220 mm^2	110 mm^2	15000 mm^2
RF-SOI	GaN RF	GaN/SiC Power	Photonics-SOI	FD-SOI

GaN, SiC
Power supplier

FD-SOI
High efficient computing

Photonics-SOI
Silicon photonics for optical transceiver, Quantum computing

RF-SOI
5G Baseband FEM

FD-SOI
Transceiver

Photonics-SOI
Silicon photonics for optical transceiver, Quantum computing

RF-SOI, FD-SOI, GaN RF double counting in 5G mmW RF-IC

mm^2 represent the estimated overall Soitec technologies content

Soitec technologies content

	2017 (CMD)	2022 and beyond
Smartphones	20mm^2 RF-SOI	120 mm^2 RF-SOI 120 mm^2 FD-SOI 30mm^2 Spec SOI 16mm^2 POI
Automotive	100 mm^2 Power-SOI	140 mm^2 Power-SOI 300 mm^2 FD-SOI 18mm^2 RF-SOI 1600 mm^2 GaN/SIC Power 130mm^2 InGaNOS
IoT	< 10 mm^2 FD-SOI	150 mm^2 FD-SOI 4mm^2 RF-SOI 350 mm^2 InGaNOS
Cloud & 4G/5G infrastructure	80mm^2 Photonics-SOI	110 mm^2 Photonics-SOI 15000 mm^2 FD-SOI 1500 mm^2 GaN RF 220 mm^2 GaN/SiC Power 100mm^2 RF-SOI

mm^2 represent the estimated overall Soitec technologies content

Soitec leadership expansion in multiple markets

FY24 SAM*
~1.6-2.4 Billion $
4G/5G – Auto – IoT – Cloud

SOI products portfolio

Specialty SOI

FD-SOI

RF-SOI

CAGR ~15-25% between FY19-24

New products:
> 500 M$ SAM* in FY24
5G – Auto – Sensors

Beyond SOI – POI & GaN

EpiGaN

Piezo-on-Insulator

New opportunities:
>1 Billion $ SAM*
Displays – Auto – Imaging…

Compounds semi.

InGaNOS, SiC,…

* Source: Soitec market estimates in FY24

Strategy – Key points

- **Engineered substrates are essential** to drive mass adoption in key markets

- Soitec **content increase will accelerate** thanks to growing product portfolio and unique differentiation in key applications

- Soitec strategy is to reinforce our **core business**, bring engineered substrates into **adjacent markets** and accelerate adoption by **strategic partnerships and investments in the value chain**

CAPITAL MARKETS DAY

Soitec, an amazing journey

Rémy Pierre
Chief Financial Officer

soitec

FY'19 highlights

Another very strong year

Business

- **FY'19 sales up 42% at constant exchange rates and perimeter**
- Growth mostly driven by RF-SOI (300mm) and FD-SOI adoption
- **Soitec content growth story validated in each strategic end markets**

Operations

- **Capacity expansion** in sync. with customer demand
  - **Bernin I** annual capacity raised from 900k to 950k
  - **Bernin II** annual capacity for FD-SOI raised to 350k
  - **Singapore** installation and qualification of pilot line
- Enhanced partnership with **Simgui** including 200mm capacity to be increased from 180k to 360k wafers
- **Addition** of 180 people in FY'19 (excl. Dolphin)
- Opening of **direct sales operations in China**

Strategic Alliances

- **Leti** and Soitec launched a new substrate innovation center to accelerate time to market of new engineered substrates from R&D to prototypes
- Soitec, first European strategic partner of **Silicon Catalyst** (access to early-stage silicon technology innovation)
- Soitec, first materials supplier to join **China Mobile 5G Innovation Center**
- Launch of joint program with **Singapore-based A*STAR IME** to develop and integrate a new layer transfer process

FY'19 highlights

Another very strong year

M&A

- **Acquisition of Dolphin assets**:
  - Soitec 60% / MBDA 40%
  - Skillset to reinforce a full IP and service offering related to energy efficient solutions for chip design on FD-SOI.
- Agreement to acquire **100% of EpiGaN (post closing):** expansion of Soitec's engineered substrate portfolio into GaN technology
  - Estimated TAM between 500k and 1M wafers within 5 years
- SPA (post closing) to **sell Soitec's 20% remaining equity stake in Touwsrivier** + associated loan to be redeemed (assets valued at €16.5m in Soitec's balance sheet)

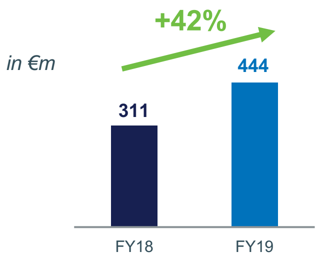
Financials

- **Strong operating leverage**
  - 37.2% gross margin (vs. 34.4% in FY'18)
  - 24.4% current operating margin (vs. 21.7% in FY'18)
- **Strong operating cash-flow**
  - €59.3m generated by continuing operations in FY'19
- **Capex deployment in line with plan**
  - €121m in FY'19, as planned
- **Issuance of €150m convertible bonds (2023 OCEANEs) to strengthen balance sheet**
  - Zero coupon
  - 5-year maturity

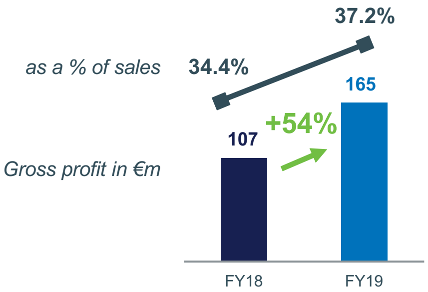
FY’19 highlights
Strong financial performance

Sharp increase in revenue

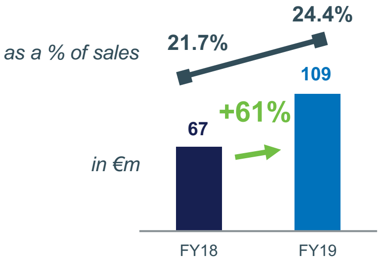
at constant exchange rates and perimeter



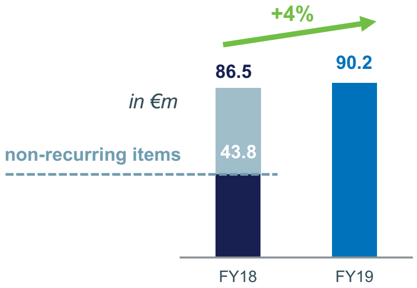
Strong improvement in gross margin



Strong increase in current operating income



Slight increase in net result



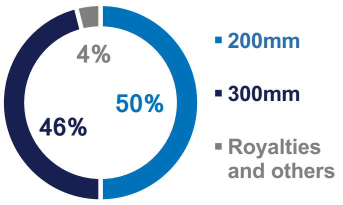
The income and expenses related to discontinued operations are directly reported as “Net result from discontinued operations”.
Down to the line “Net result after tax from continuing operations”, the Group consolidated P&L account now exclusively and fully reflects the Electronics activities as well as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

FY’19: revenue breakdown

In €m

	FY’18	Q1’19	Q2’19	Q3’19	Q4’19	FY’19	Change vs FY’18 %	% at constant FX and scope	
200mm wafer sales	**192.4**	50.9	51.2	58.7	60.2	**221.0**	+15%	**+17%**	1
300mm wafer sales	**106.3**	39.3	41.3	52.8	72.3	**205.7**	+93%	**+97%**	2
Royalties and other revenues	**11.9**	1.7	2.5	5.3	7.8	**17.3**	3 +45%	**-43%**	4
Total sales	**310.6**	**91.9**	**95.0**	**116.8**	**140.3**	**443.9**	**+43%**	**+42%**	

Sales breakdown



1 **200mm wafer sales up 17%** (at constant exchange rates and perimeter)

- Sustained demand for RF-SOI (mobile) and Power-SOI (automotive)
- Higher volumes thanks to outsourced production (Simgui @13% of 200mm wafers sold)
- Favorable combined product mix

2 **300mm wafer sales up 97%** (at constant exchange rates and perimeter)

- Much higher volumes driven by surge in FD-SOI and RF-SOI 300 mm
- Lower sales of Imager-SOI and Photonics-SOI
- Favorable mix effect

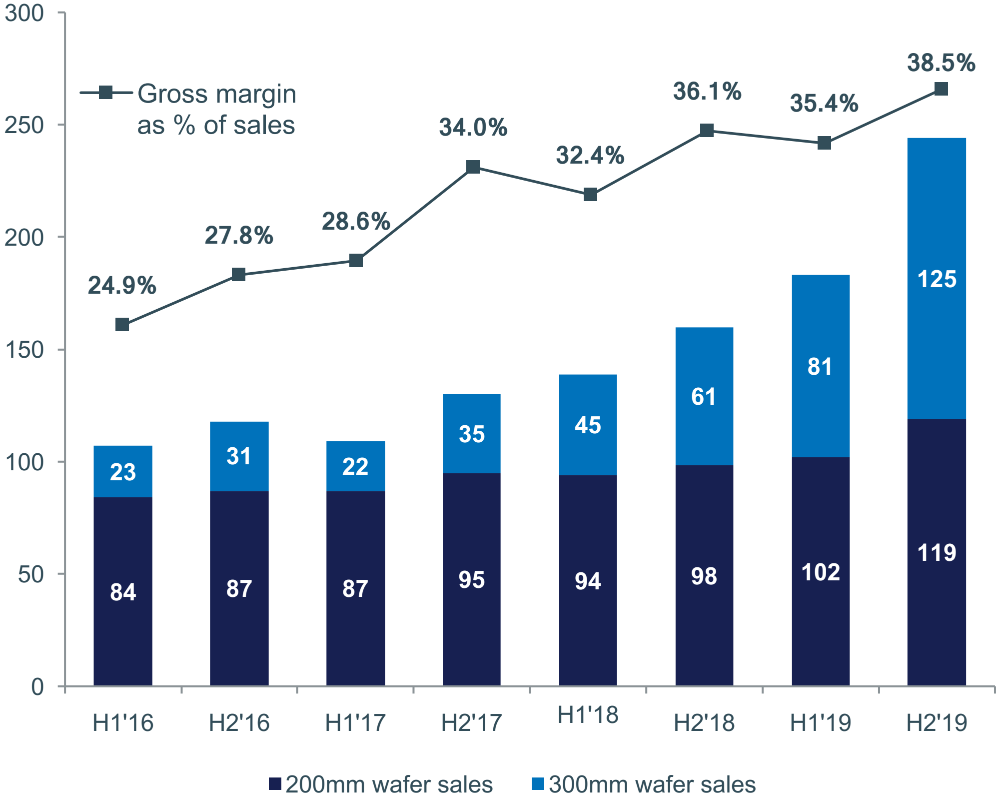
3 **Royalties and other revenues up 45%**

- Positive impact of Dolphin acquisition

4

- Lower Royalties and IP revenues vs. FY’18 which included €4.4m one-off revenues

FY’19 gross margin at 37.2%



- **Acceleration in revenue growth over the last semesters**
  - Mainly driven by sharp increase in 300mm volumes
  - Favorable mix and price effects
- **Increasing use of production capacity**
  - Bernin I running at full capacity
  - Approx. 13% of 200mm production outsourced to Simgui
  - Bernin II capacity utilization rate up from 36% in FY’18 to nearly 70% in FY’19
- **Better absorption of production costs partially offset by:**
  - Unfavorable forex impact
  - Higher bulk material prices
  - Higher outsourced production
  - Higher expenses incurred by the restart of Singapore facility

Strong increase in current operating income

In €m	FY'19		FY'18		Change	
Sales	**443.9**		**310.6**		**+43%**	
Gross profit	**165.0**		**106.9**		**+54%**	
As a % of sales	*37.2%*		*34.4%*			
Gross R&D expenses	(51.3)	1	(43.9)		+17%	
Prototype sales and others	9.2		8.8		+5%	
Subsidies and income tax credit	22.0		26.9	2	-18%	
Net R&D expenses	**(20.0)**		**(8.2)**		**+144%**	
As a % of sales	*4.5%*		*2.6%*			
Sales & Marketing expenses	(9.8)		(7.8)		+26%	
General and administrative expenses	(26.8)		(23.5)		+14%	
Total SG&A expenses	**(36.6)**		**(31.2)**		**+17%**	
As a % of sales	*8.2%*	3	*10.1%*			
Current operating income	**108.4**	4	**67.4**		**+61%**	4
As a % of sales	*24.4%*		*21.7%*			

- **Net R&D expenses sharply up:**
  - 1 › Increase in gross R&D expenses largely due to the integration of Dolphin
  - 2 › Decline in subsidies and research tax credits as FY'18 benefitted from a €7.5m non-recurring R&D income
- 3 **Lower SG&A / sales ratio despite:**
  - › Increased expenses due to higher activity and integration of Dolphin
  - › Increase in charges related to free share incentive plans
- 4 **Strong increase in current operating income**
  - › Benefit from strong operating leverage,
  - › Despite increased costs in non-contributing Singapore
  - › Despite dilutive impact of Dolphin acquisition

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.

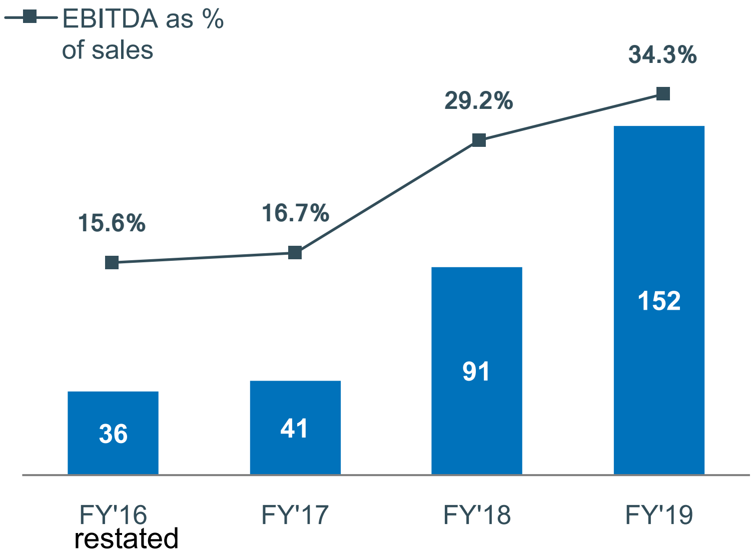
Net profit slightly up

In €m	FY'19		FY'18	
Current operating income	**108.4**		**67.4**	
Other operating income and expenses	0.5		4.1	1
Operating income	**108.9**		**71.5**	
Net financial income/(expense)	(8.1)	3	3.1	2
Income tax	(10.9)		17.5	4
Net profit from continuing operations	**89.9**		**92.1**	
Net profit / (loss) from discontinued operations	**0.3**	6	**(5.6)**	5
Net profit (Group share)	**90.2**	7	**86.5**	

1. **FY'18 other operating income was including** an impairment reversal related to Bernin II for €3.8m
2. **FY'18 net financial income was including** a €4.6m non recurring financial income (early repayment of a guarantee deposit related to Touwsrivier solar plant)
3. **FY'19 net financial income includes:**
   - €3.2m non cash financial interests and amortization of the issuing fees related to OCEANEs 2023
   - A foreign exchange loss of €4.6m
4. **FY'18 income tax was including** a non recurring €25.4m income related to the recognition of a deferred tax asset over tax loss carry forwards
5. **FY'18 loss from discontinued operations** was relating to the adjustment of provisions and value of solar assets
6. **FY'19 profit from discontinued operations includes:**
   - A foreign exchange loss of €2.2m
   - A €2.0m income related to dividends received from South African solar power plant
7. **FY'19 net profit slightly up (+4%) despite high level of non recurring income recorded in FY'18**

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.

Significant increase in EBITDA of the continuing operations (Electronics)



- FY’19 EBITDA up 68% vs FY’18
- FY’18 EBITDA was including:
  - €2.9m resulting from one-off royalties and IP revenue
  - €7.5m one-off R&D subsidy

Strong cash generation from operating activities

In €m	FY'19 Continuing operations	FY'19 Discounted operations	FY'19 Total	FY'18 Continuing operations	FY'18 Discounted operations	FY'18 Total
Net profit	**89.9**	**0.3**	**90.2**	**92.1**	**(5.6)**	**86.5**
Depreciation and amortization	24.6 [1]	-	24.6	18.6	-	18.6
Other items	37.8 [3]	(2.8)	35.0	(20.1) [2]	2.9	(17.2)
EBITDA	**152.3**	**(2.5)**	**149.8**	**90.6**	**(2.7)**	**87.9**
R&D redeemable advance reversal to income	0.2	-	0.2	(4.8)	-	(4.8)
Change in working capital	(93.2) [4]	0.3	(92.9)	(45.8)	(2.2)	(48.0)
Net cash generated by / (used in) operating activites	**59.3**	**(2.2)**	**57.1**	**40.0**	**(4.9)**	**35.1**

1

- **FY'19 depreciation and amortization up due to:**
  - Continuous investments
  - Dolphin acquisition
  - First application of IFRS 16

2

- **FY'18 other items include:**
  - €3.8m impairment reversal related to Bernin II
  - €4.0m share-based payment expense
  - €25.4m related to the recognition of deferred tax asset over tax loss carry forwards

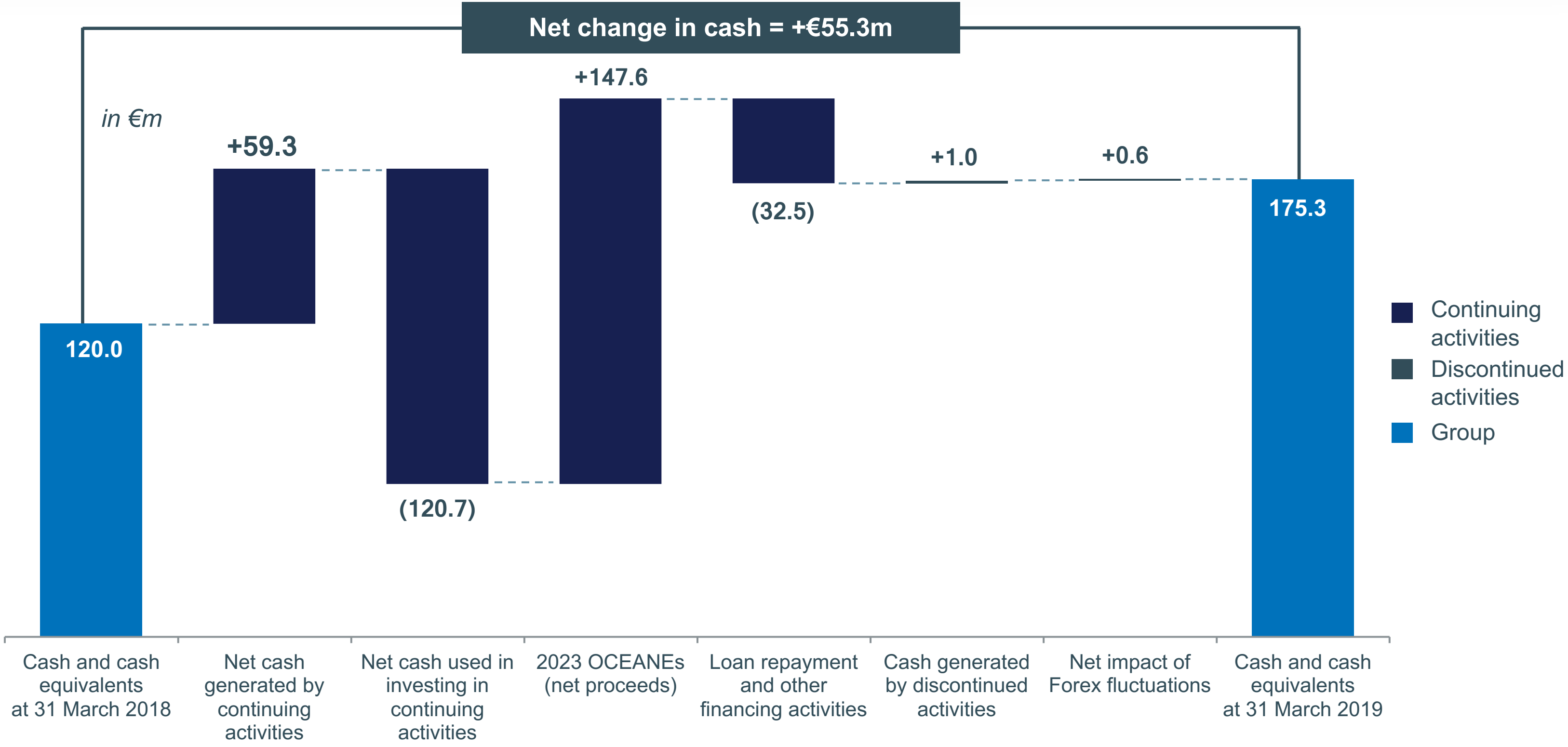
3

- **FY'19 other items include:**
  - €18.0m share-based payment
  - €10.9m income tax
  - €8.1m negative financial result

4

- **Increase in FY'19 WCR:**
  - Higher level of activity
  - Low bulk inventories at opening
  - Significant FD-SOI delivery towards closing
  - Application of IFRS 15 (€5.1m impact)

Solid increase in cash position



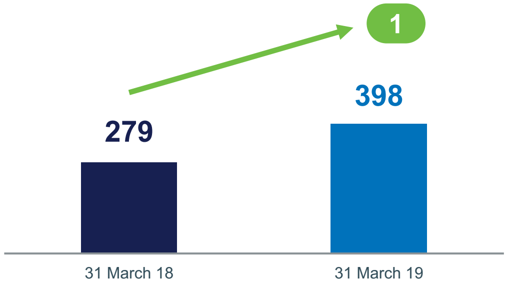
A much strengthened balance sheet

In €m	31 March 2018	31 March 2019
Intangible assets	8.2	38.5
Tangible assets and other non current assets	207.3	334.5
Total non-current assets	**215.5**	**373.0**
Current assets	120.3	257.5
Cash and cash equivalents	120.0	175.3
Total current assets	**240.2**	**432.8**
Assets held for sale and discontinued	24.0	16.7
Total assets	**479.7**	**822.5**

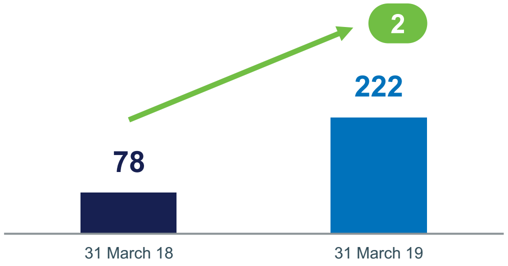
In €m	31 March 2018	31 March 2019
Total equity	**278.6**	**398.3**
Long-term financial debt	59.6	199.2
Provisions and other non-current liabilities	11.5	21.4
Total non-current liabilities	**71.1**	**220.6**
Short-term financial debt	18.6	22.6
Current liabilities	99.2	174.8
Total current liabilities	**117.8**	**197.4**
Liabilities from discontinued operations	12.2	6.2
Total liabilities and equity	**479.7**	**822.5**

A solid financial position

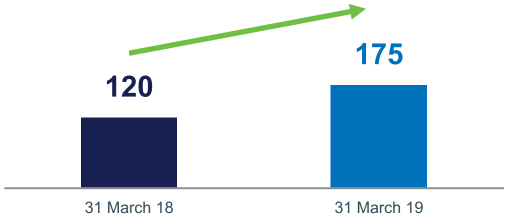
Shareholders' equity (€m)



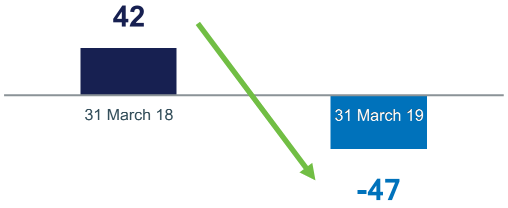
Gross debt (€m)



Cash and cash equivalent (€m)



Net cash position (€m)



1

- **Equity reinforced by €120m:**
  - +€90m retained FY'19 earnings
  - +€20m recognized as equity out of the €150m 2023 OCEANEs bonds issue
  - +€18m related to share-based payments
  - +€7m forex adjustments
  - -€11m revaluation of hedge instruments fair value

2

- **Gross debt increased by €144m:**
  - +€130m recognized as debt out of the €150m 2023 OCEANEs bonds issue
  - -€29m redeemed credit lines
  - +€22m finance lease
  - +€6m 1st application of IFRS 16
  - +€8m put option granted to the minority shareholder of Dolphin

Guidance for FY’20

- **FY’20 sales expected to grow by around 30% at constant exchange rates and perimeter:**
  - Sustained demand expected in RF-SOI 200mm and Power-SOI: Bernin I to operate at full capacity + Simgui outsourcing
  - Further growth expected in RF-300mm and FD-SOI: Bernin II expected to operate at full capacity in the early part of FY’20

- **FY’20 Electronics EBITDA margin expected at around 30% of sales, a very solid level**
  - Based on € / $ rate at 1.13 (EBITDA sensitivity to € / $ rate : +/- 10cts = +/- €23m)
  - Less favorable product mix and bulk material costs
  - Singapore costs to increase whereas sales will remain marginal
  - Dilutive impact of Simgui outsourcing

- **FY’20 capex planned at approx. €130m, including further investments in capacity projects related to existing industrial sites:**
  - Bernin II: continue extending the existing building with a view to subsequently increase capacity by 350k wafers (300mm) vs. previous indication of +150k wafers
  - Bernin III: start investments to build capacity in POI wafers (engineered substrates for filters – 150mm)
  - Singapore: progressively increase capacity with a view to potentially reach 1,000k wafers (300mm) vs. previous indication of 800k wafers

Full Fab Financial Model

- **Capacity raised to:**
  - Bernin I (200mm for RF and Power) : 950,000 wafers
  - Simgui (200mm for RF and Power) : 360,000 wafers
  - Bernin II (300mm for all products) : 1,000,000 wafers
  - Singapore (300mm for RF and FD) : 1,000,000 wafers
  - Bernin III (150mm for POI) : 400,000 wafers

- **Key financials with all fabs operating at full capacity:**

  Sales ~$1,600m

  EBITDA ~€450m at $/€ rate of 1.13 (sensitivity 10cts = €45m)

  EBITDA margin ~32%

- **Capex to reach full capacity:**

  Total capex ~€700m including €550m for capacity extension

  Split 50/50 between Bernin and Singapore

CAPITAL MARKETS DAY

Soitec, an amazing journey

Bernard Aspar
EVP Global Business Units

“Profitable growth driven by content increase and broader products portfolio”

soitec

Key messages

1. A new organization to deliver high value products and generate profitable growth
2. 6 x Business Units focused on strategic end markets/applications
3. Ecosystem partnerships to benefit from market pull opportunities
4. Agility to react on market demand and customer requirements
5. Focus on end markets where engineered substrates can become standards

Soitec leadership expansion in multiple markets

FY24 SAM*
~1.6-2.4 Billion $

4G/5G – Auto – IoT – Cloud

SOI products portfolio

Specialty SOI

FD-SOI

RF-SOI

CAGR ~15-25% between FY19-24

New products:
> 500 M$ SAM* in FY24

5G – Auto – Sensors

Beyond SOI – POI & GaN

EpiGaN

Piezo-on-Insulator

New opportunities:
>1 Billion $ SAM*

Displays – Auto – Imaging…

Compounds semi.

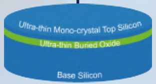
InGaNOS, SiC,…

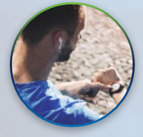
* Source: Soitec market estimates in FY24

A broad product portfolio of engineered substrates

PROCESSOR & CONNECTIVITY SOC

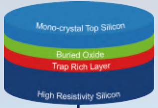
FD-SOI
For power-efficient integration of digital/analog/RF





RF FRONT-END MODULE

RF-SOI
For highly efficient mobile communication

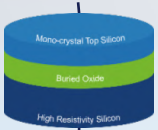


POWER

Power-SOI
For high voltage device integration

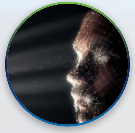
PHOTONICS

Photonics-SOI
For high perf. photonics device integration into silicon



IMAGERS

Imager-SOI
For improved imager performance in NIR

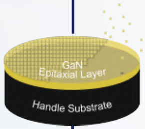


PIEZO-ON-INSULATOR

POI
For high performance 5G filters

GaN

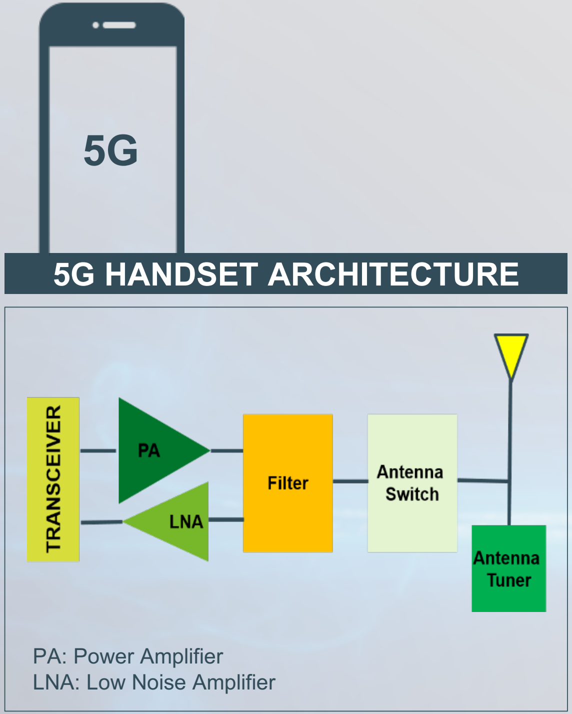
GaN
For radio frequency (RF) 5G and power systems



Silicon-On-Insulator products

Piezo & compound products

A complete product portfolio for handsets & base station communication



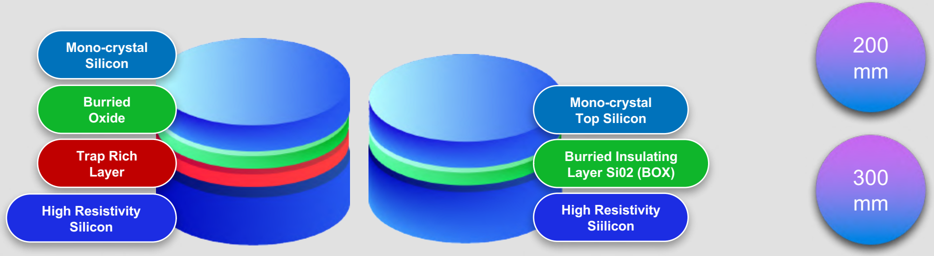
PA: Power Amplifier
LNA: Low Noise Amplifier

	TRANSCEIVER < 6GHz	TRANSCEIVER mmW	PA < 6GHz	PA mmW	LNA	Filter	Antenna Switch	Antenna Tuner
RF-SOI		✓	✓	✓	✓		✓	✓
FD-SOI	✓	✓		✓	✓		✓	
POI						✓		
GaN				✓	✓		✓	

RF-SOI

RF-SOI: an industry standard for Front-End Module (FEM)

Product description



Mono-crystal Silicon

Burried Oxide

Trap Rich Layer

High Resistivity Silicon

Mono-crystal Top Silicon

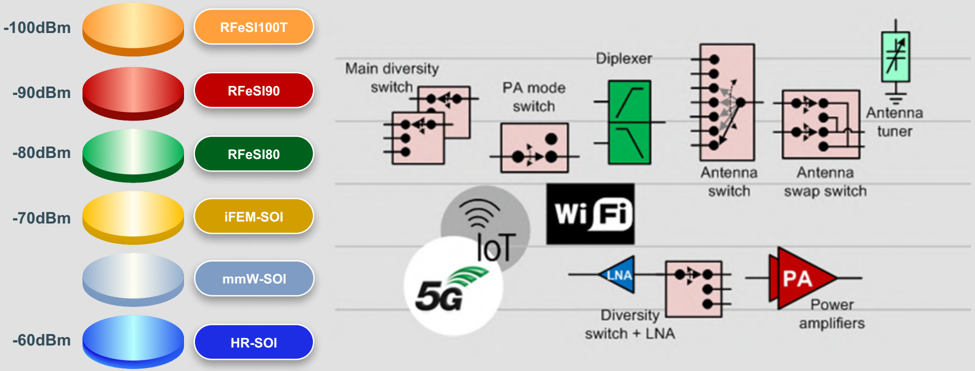
Burried Insulating Layer Si02 (BOX)

High Resistivity Sillicon

200 mm

300 mm

A solid product roadmap to cover all RF FEM components



-100dBm RFeSI100T

-90dBm RFeSI90

-80dBm RFeSI80

-70dBm iFEM-SOI

mmW-SOI

-60dBm HR-SOI

Value proposition

- RF-SOI is present in 100% of smartphones
- RF-SOI is a standard for RF FEM components (antenna tuners, switches, LNAs, PAs)
- RF-SOI is a unique platform for FEM integration
- RF-SOI provides inherent isolation and signal integrity for LTE and 5G
- Best in class performance per cost

Soitec leveraging RF ecosystem

Foundries

> 12 SOI Foundries

- tsmc
- GLOBALFOUNDRIES
- XFAB MIXED-SIGNAL FOUNDRY EXPERTS
- ST
- HHGrace
- SMIC
- TOSHIBA
- SONY
- UMC
- MagnaChip
- TOWERJAZZ The Global Specialty Foundry Leader

RF IC / FEM manufacturers

Switch	Antenna Tuner	PA	Filter
BROADCOM Peregrine Semiconductor muRata INNOVATOR IN ELECTRONICS SKYWORKS TDK Qualcomm qorvo			
RDA H maxscend			
SONY TOSHIBA			

Chipset makers

- Qualcomm
- MEDIATEK
- SAMSUNG
- intel
- HISILICON
- SPREADTRUM
- ANALOG DEVICES AHEAD OF WHAT'S POSSIBLE™

Phone makers

- SAMSUNG
- vivo
- mi
- lenovo
- LG
- HUAWEI
- oppo

Infrastructure

- HUAWEI
- ZTE中兴
- NOKIA
- ERICSSON

RF-SOI growth drivers & market outlook

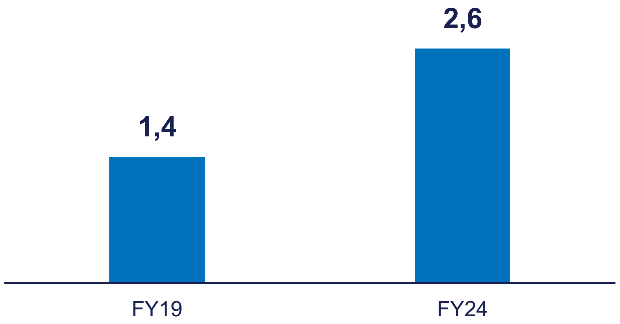
<6GHz

- 4GLTE advanced Pro and 5G Cellular RF Front-End
- 5G sub 6GHz Massive MIMO RF Front-End
- Wifi and IoT RF Front-End

>10GHz

- 5G mmW RF Front-End cellular and infrastructure
- Satellite Com Infrastructure RF Front-End
- Machine-to-Machine Connectivity RF Front-End

RF-SOI SAM in million wafers (200mm eq.)



FD-SOI

Soitec FD-SOI:
Versatile platform to connect the unconnected

Early adopters

	Nodes	RF	eMeM
SAMSUNG	28nm 18nm	✓	✓
GLOBAL FOUNDRIES	22nm 12nm	✓	✓
ST	28nm	✓	✓
RENESAS	65nm	✓	

SAMSUNG SONY NXP
Mobileye An Intel Company
LATTICE SEMICONDUCTOR
RENESAS Synaptics

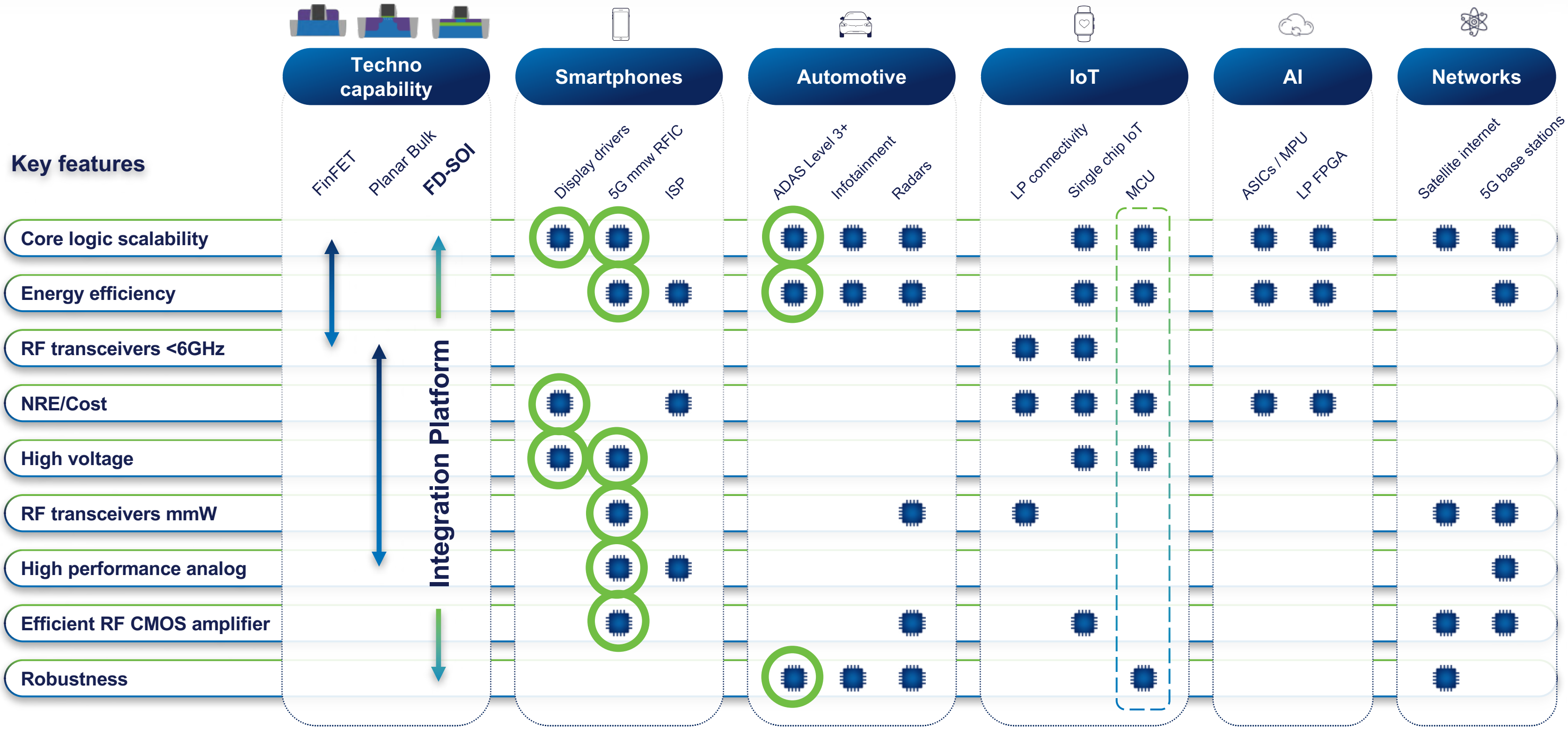
Customer requirements

5G Networks	Wide bandwidth RF / Digital integration
Automotive	Reliability High-voltage integration
Mobile	Manufacturability Low (energy) leakage
Edge AI	Performance computing reconfigurability
IoT	Cost efficiency Battery efficiency

FD-SOI success factors

Integration	Reduced components Seamless packaging
Size	Thick RF metal Planar Beyond 28nm
Manufacturing	Large volume (300mm) Fewer mask layers
Robustness	Less (digital) errors Error (Body-Bias) tuning
Opportunities	*AI-Aware* Design *All-in-One* platform Sol'n

FD-SOI: best trade-off to integrate Digital/Analog/RF…

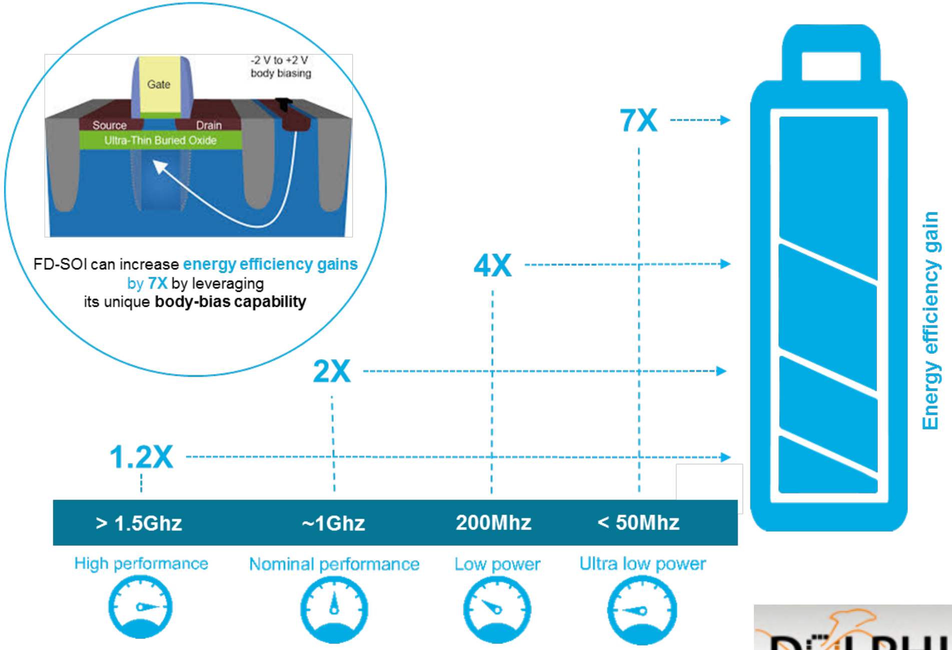


	Techno capability			Smartphones			Automotive			IoT			AI		Networks	
Key features	FinFET	Planar Bulk	**FD-SOI**	Display drivers	5G mmw RFIC	ISP	ADAS Level 3+	Infotainment	Radars	LP connectivity	Single chip IoT	MCU	ASICs / MPU	LP FPGA	Satellite internet	5G base stations
Core logic scalability				◉	◉		◉	●	●		●	●	●	●	●	●
Energy efficiency					◉	●	◉	●	●		●	●	●	●		●
RF transceivers <6GHz										●	●					
NRE/Cost				◉		●				●	●	●	●	●		
High voltage				◉	◉						●	●				
RF transceivers mmW					◉				●	●					●	●
High performance analog					◉	●										●
Efficient RF CMOS amplifier					◉				●		●				●	●
Robustness							◉	●	●			●			●	

FD-SOI body bias: leveraging substrate architecture to enable transistor performance on-demand

- Dolphin Design providing IP solution to fabless to master power management

- FD-SOI body biasing deployed as main pillar



FD-SOI can increase **energy efficiency gains by 7X** by leveraging its unique **body-bias capability**

Body-bias impact on energy efficiency

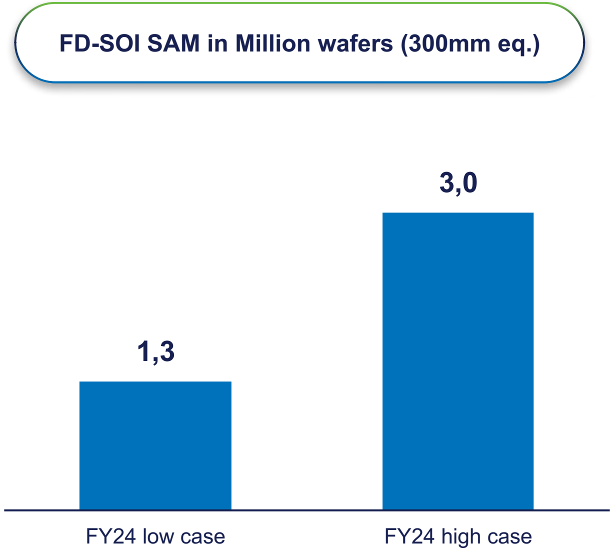
DOLPHIN DESIGN

FD-SOI market

KEY POINTS

- FD-SOI is a versatile platform to integrate multiple functions such as digital, analog, RF, high voltage…into one system-on-chip
- FD-SOI is now ramping into multiple applications (automotive, AIoT, connectivity, micro-controller,…)
- Soitec product roadmap supports technology node down to sub-12 nm

A MULTI-MILLION WAFER MARKET OUTLOOK FOR FY24



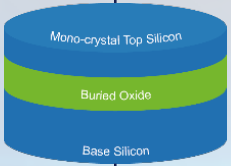
Source : Soitec estimates

Specialty SOI

Specialty SOI products

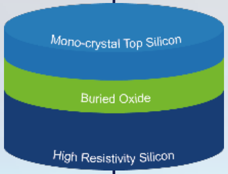
POWER

Power-SOI
For high voltage device integration



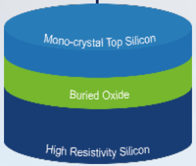
PHOTONICS

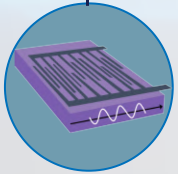
Photonics-SOI
For high perf. photonics device integration into silicon



MEMS

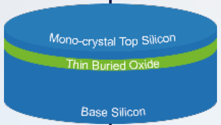
MEMS-SOI
For advanced sensing

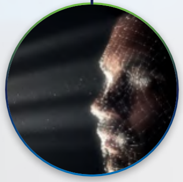




IMAGERS

Imager-SOI
For improved imager performance in NIR





Specialty SOI: SMART POWER

Product description

200 mm

300 mm

Value proposition

HIGH RELIABILITY

PERFORMANCE

- Excellent electrical isolation
- Higher temperature operation
- Multiple voltage domain integration (digital/analog/high voltage)
- Ease of design for IC protection

COST

- Smaller die size

Automotive

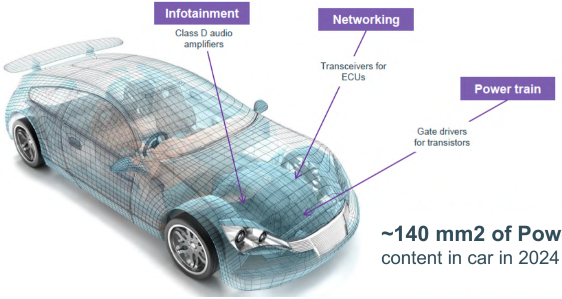
Industrial

Consumer

Growth drivers & outlook

Power-SOI footprint expected to rise further in automotive

- In-Vehicule Networking
- Infotainment
- Power train



~140 mm2 of Power SOI content in car in 2024

Power-SOI SAM in FY24
~900 k wafers (200 mm eq.)

Specialty SOI: PHOTONICS

Product description

200 mm

300 mm

Value proposition

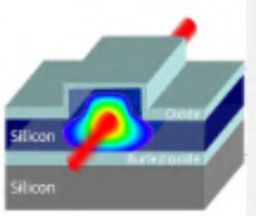
Integration platform for complex optical function using CMOS fab

High speed modulation compliant

Low loss wave guide

Scalable solution for:

- integration
- performance
- cost



Datacenters

5G

High-performance Computing

Ecosystem & TAM

Silicon photonics growth drivers:

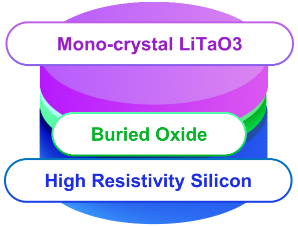
- Data center traffic
- Optical transceivers for data rate >= 100G/s
- Optical chip-to-chip interconnect
- Quantum computing

Photonics-SOI SAM in FY24
~100 k wafers (300 mm)

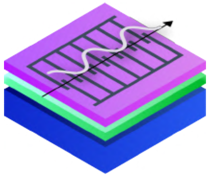
Piezo-electric-on-Insulator

Piezo-On-Insulator to enable new generation of filters

Product description



POI:
Thin piezo layer on oxyde
on high resistivity silicon

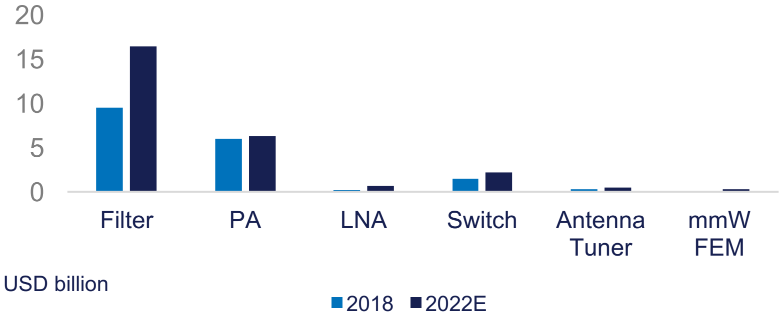


Enable manufacturing of high performance surface acoustic wave (SAW) filters

Growth drivers & market outlook

Among all RF devices, **filters** will:

- grow the fastest with ~15-20% CAGR till 2022
- account for **~60%** of the overall RF component market



Source: Yole, Bernstein estimates and analysis

Piezo-On-Insulator enabling new generation of filters

Value proposition

5G Requirements	Impact	Soitec value proposal
Data rates up to 20Gb/s	High frequencies Larger bandwidth Band density Battery life	High quality factor High temperature stability Low loss filters
Up to 100 filters per smartphones	Component density Power dissipation	Filter integration Better thermal conductivity
Fast ramp to volume	Quick product design High volume manufacturing	Design acceleration with frec|n|sys Dedicated fab for POI HVM demonstrated on RF-SOI

Filters competitive environment

	SOITEC POI	SAW	TC SAW	BAW
High quality factor	✓	✗	✗	✓
High temperature stability	✓	✗	✓	=
Low loss filters	✓	✗	✗	✓
High frequencies	=	✗	✗	✓
Efficient same die integration	✓	=	=	✗
Cost	=	✓	✓	✗

- **Several product qualifications ongoing**

POI SAM in FY24 ~1 Million wafers (150 mm)

EpiGaN

External growth strategy: expand core business

May, 2019 - Soitec acquires EpiGaN to accelerate engineered substrates penetration in booming 5G and Power markets

EpiGaN at a glance

- Start-up founded in 2010 as a spin-off from IMEC
- Widely recognized for its strong expertise in GaN for several years
- Technology ready and optimized for 5G broadband network applications

EPIGAN
AHEAD IN GAN SOLUTIONS

Strategic rationale

- Creation of a unique and comprehensive offering for 5G
- Similar market and RF customer base
- Expansion of Soitec's product portfolio beyond silicon (SOI) into Gallium Nitride (GaN) technology

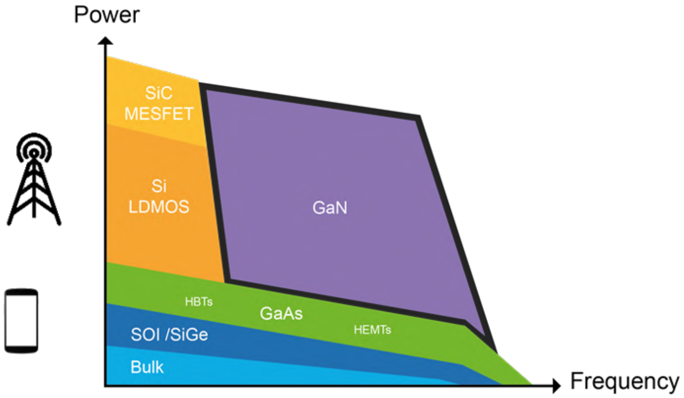
Outlook

- EpiGaN is now integrated as one of Soitec's business units
- Focus on 5G application initially

*Piezoelectric-on-insulator

GaN epi wafers: leading technology for 5G

RF – 5G



Source: Figure adapted from Analog Device 2017

- Cellular base stations (>5W power amplifier)
  GaN - becoming mainstream for **4G / 5G <6Ghz and mmW**

- Cellular handset (<3W Power amplifier)
  GaAs – Mainstream technology for **4G / 5G <6Ghz**
  GaN – advantage for **5G mmW**

Market outlook

EpiGaN SAM in FY24
~300 k wafers (150mm eq.)

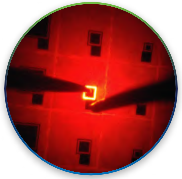
Future opportunities on power automotive & sensors

Compounds

InGaNOS – A new approach with engineered substrates for a huge display market

Technology

Proven technology for InGaN red LEDs



50x50 µm² red microLED fabricated on Soitec substrate

Value proposition

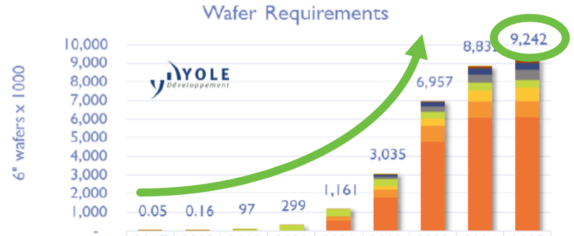
Better red efficiency at micrometer-scale than phosphide

Same InGaN material for blue, green and red LEDs

Technology scalable to 200 mm

Wafer volume projection

InGaNOS TAM in FY24
>4 Million wafers (150 mm)

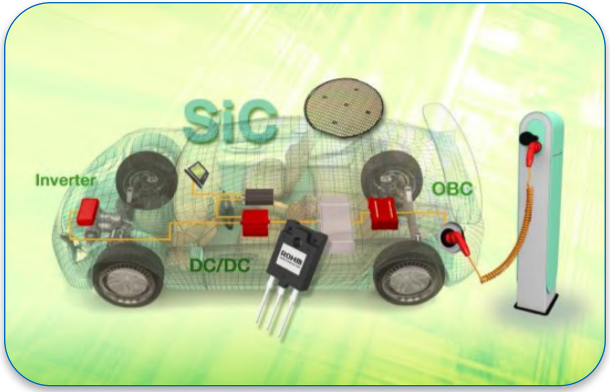


	2017	2018	2019	2020	2021	2022	2023	2024	2025
Large video displays	0.05	0.16	0.4	1.4	3.7	7.0	10	12	12
HUD	-	-	-	-	0.3	1.9	6.3	15	34
AR/MR	-	-	0.1	1.2	4.8	14	39	90	195
Monitors	-	-	-	-	-	118	237	355	355
TVs	-	-	-	-	26	132	267	403	541
Smartwatches	-	-	96	297	338	379	406	421	435
Laptops	-	-	-	-	-	192	387	585	692
Tablets	-	-	-	-	217	423	829	914	901
Smartphones	-	-	-	-	572	1,768	4,777	6,038	6,077
Total	0.05	0.16	97	299	1,161	3,035	6,957	8,832	9,242

SiC power devices

Rapidly-growing market, driven by automotive EV

Electric Vehicles



SiC TAM within next decade
>multi-million wafers per year (200 mm)

Soitec positioning and value proposition

Supply chain:

- Enable high volumes of SiC supply
- Enable faster transition to 200 mm (limited CAPEX and lower volume for SiC needed)

Devices performance:

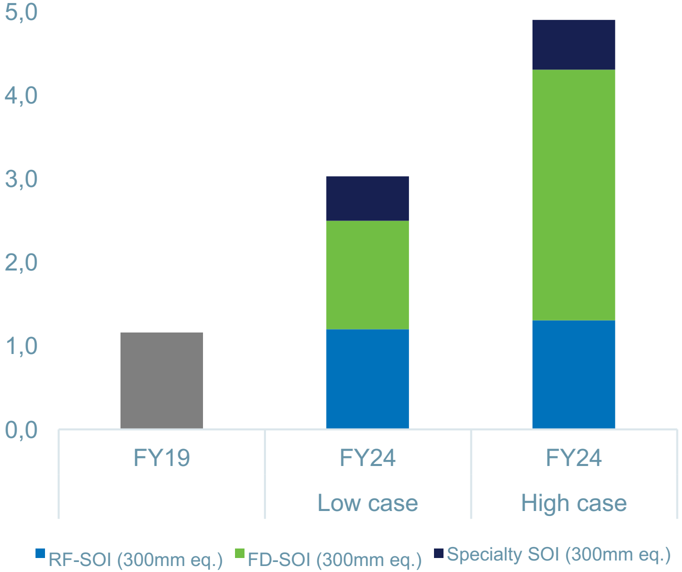
- Higher yield

Global
Business Units

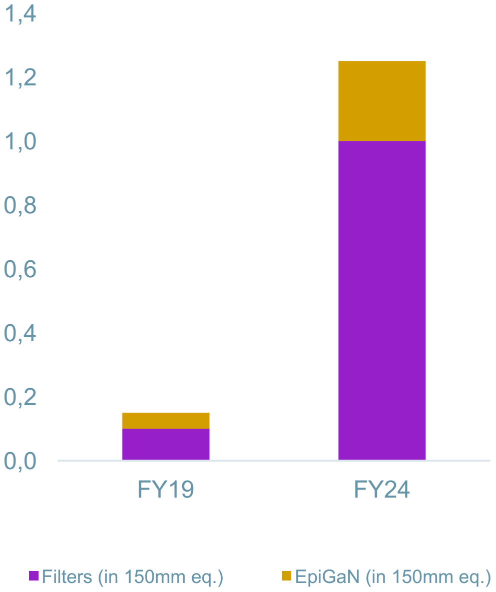
Key messages

Profitable growth, driven by strong product value in growing markets

SOI products SAM (M wafers eq. 300 mm)
+ 20% to +30% CAGR between FY19 and FY24



New products SAM (M wafers eq.150 mm)
>1M wafers in FY24



Global Business Units – Key points

- SOI core business (revenue) growing at 15-25% CAGR from FY19 to FY24
  - Strong RF-SOI growth driven by continuous content increase
  - FD-SOI ramping through multiple applications (mobile, automobile, IoT)
  - Solid Specialty SOI business through Power-SOI, Photonics-SOI,…
- New products to fuel additional growth
  - POI as a key solution for filters
  - EpiGaN focusing on RF
- New market opportunities in compound semiconductors (SiC, InGaNOS…)

“Soitec product portfolio strategically enables innovations required by growing and emerging markets”

CAPITAL MARKETS DAY

Soitec, an amazing journey

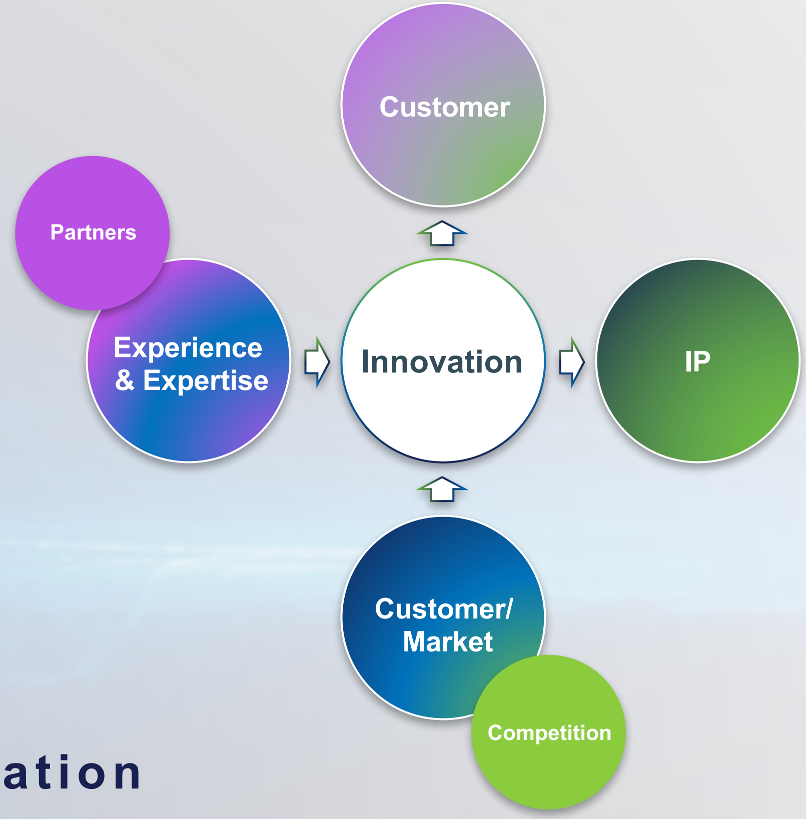
Christophe Maleville
Chief Technology Officer

Innovation for semiconductor industry

« Innovate to pioneer right materials options to solve our customers' challenges and create differentiation »

INNOVATION ECOSYSTEM AT SOITEC

Innovation drivers and assets



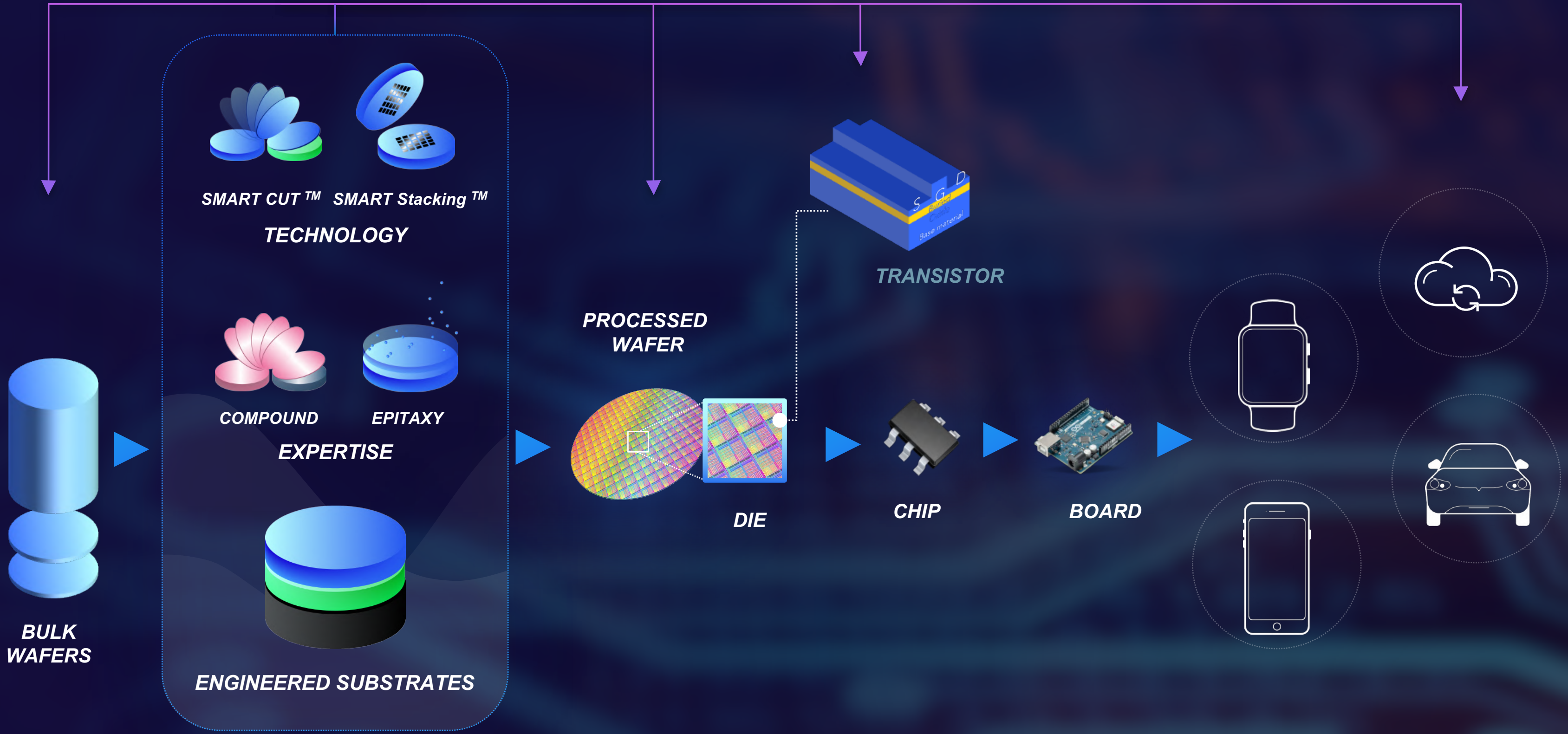
SOITEC IN THE TOP 50 OF FRENCH PATENT APPLICANTS INPI RANKING OVER THE PAST 2 YEARS

People

IP

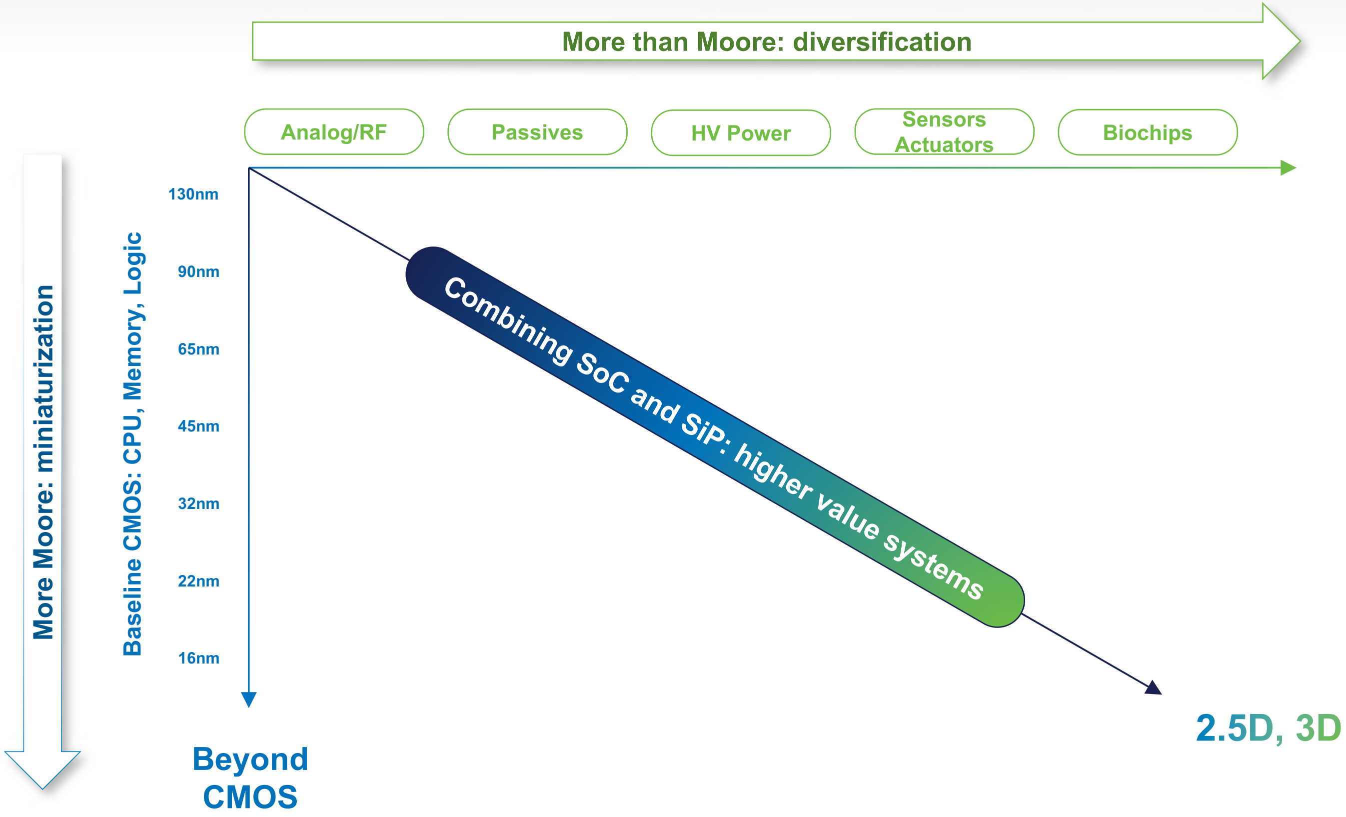
Collaboration

Innovation is key in the value chain



INNOVATION ROADMAP

Three main directions for innovation



Innovation at Soitec: New substrate technologies

Improved processes

SMART CUT ™

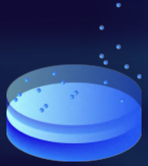
New materials

ENGINEERED SUBSTRATES
Anything on anything

- ● **Device Layer:** Silicon, Strained Silicon, Germanium, III-V…
- ● **Buried Insulator: SiO2, ONO…**
- ● **Handle Substrate**: CZ Silicon, High-resistivity Si, Sapphire, Glass

SMART Stacking ™

New structures



EPITAXY

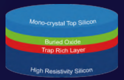
COMPOUND SEMI.

New segments

Product portfolio: addressing market growth

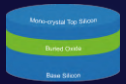
Production

RF
Front-End Module
RF-SOI
For highly efficient mobile communication



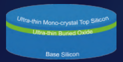
V2V – V2X - cellular

Power
Power-SOI
For high voltage device integration



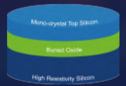
IVN – audio – gate Driver

Processor &
connectivity SoC
FD-SOI
High Reliable - Power-efficient - Digital computing with easy analog/RF integration



µcontroller – processors – radar 77GHz

Photonics
Photonics-SOI
To integrate high performance photonics devices into silicon

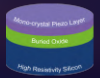


Today in data center

Imagers
Imager-SOI
For improved imager performance in NIR

Today in smartphones

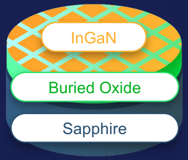
Piezo-on-insulator
POI
New engineered substrates for filters



Ramp in 2019 in smartphones

R&D

µLED
InGaNOS
Bright low power LED - RGB

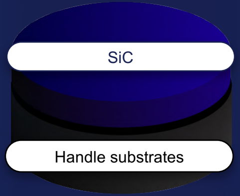


Display – AR/VR

MEMS
Cavity-SOI
High performance sensors

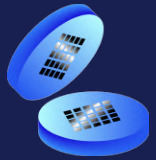
Ultrasonic - sensors

SiC Power
Compounds, etc…
High performance devices

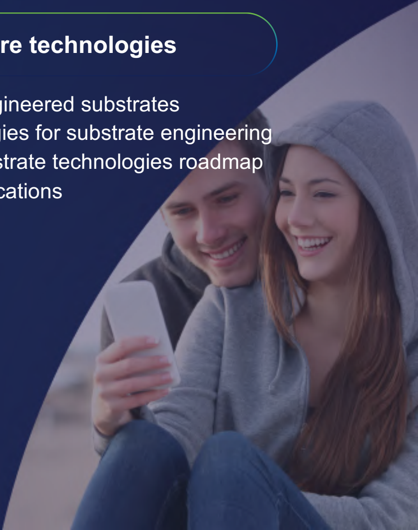


EV - industrial

Back-end integration
Compounds, etc…
High performance devices



System-in-package



SOITEC TECHNOLOGY

Revolutionary Smart Cut ™

- A mature technology benefiting from 25 years of innovation

Beyond SOI

- New materials to support emerging markets
- Smart Cut SIC technology

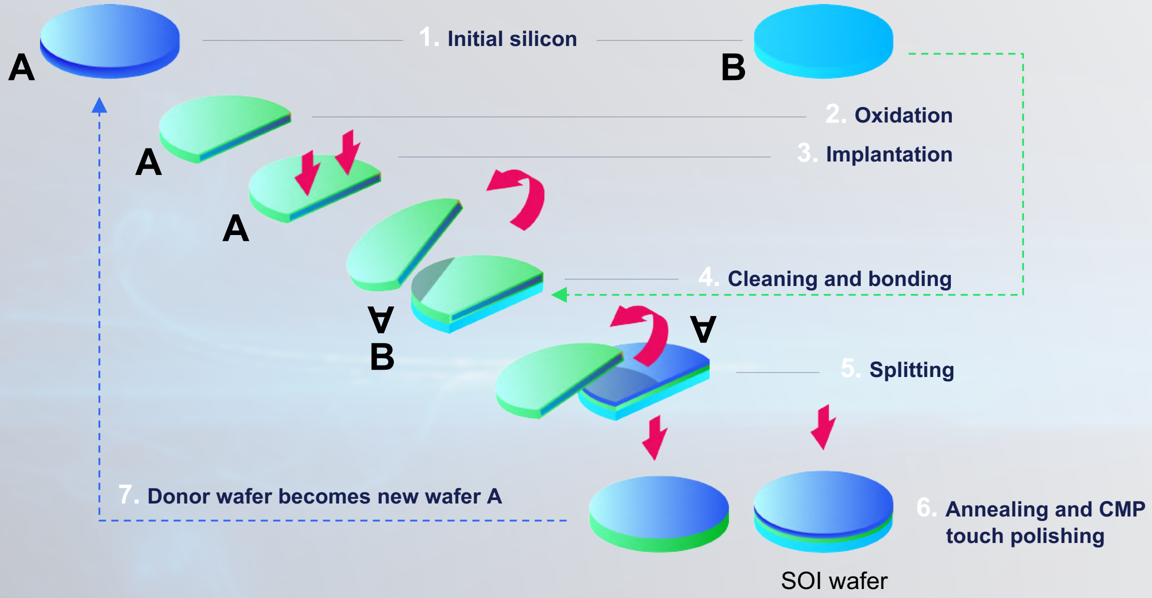
Other core technologies

- Compound engineered substrates
- Core technologies for substrate engineering
- Advanced substrate technologies roadmap
- Concrete applications

Revolutionary Smart Cut™ - A mature technology

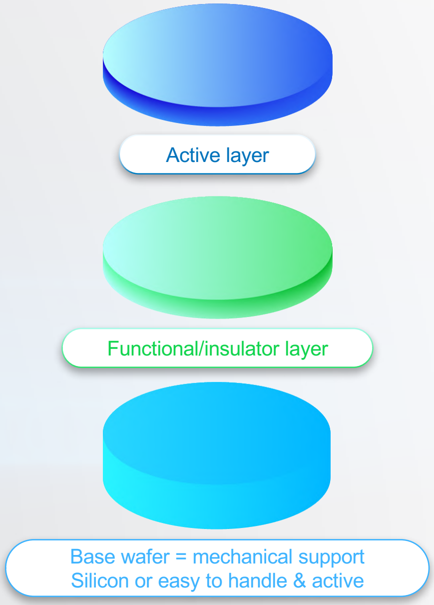
TECHNOLOGY

- Industrial manufacturability of SOI – high yield
- Drastical improvement of uniformity & quality
- Re-use of donor wafer increases cost efficiency
- Flexibility of material integration



1. Initial silicon
2. Oxidation
3. Implantation
4. Cleaning and bonding
5. Splitting
6. Annealing and CMP touch polishing
7. Donor wafer becomes new wafer A

SOI wafer

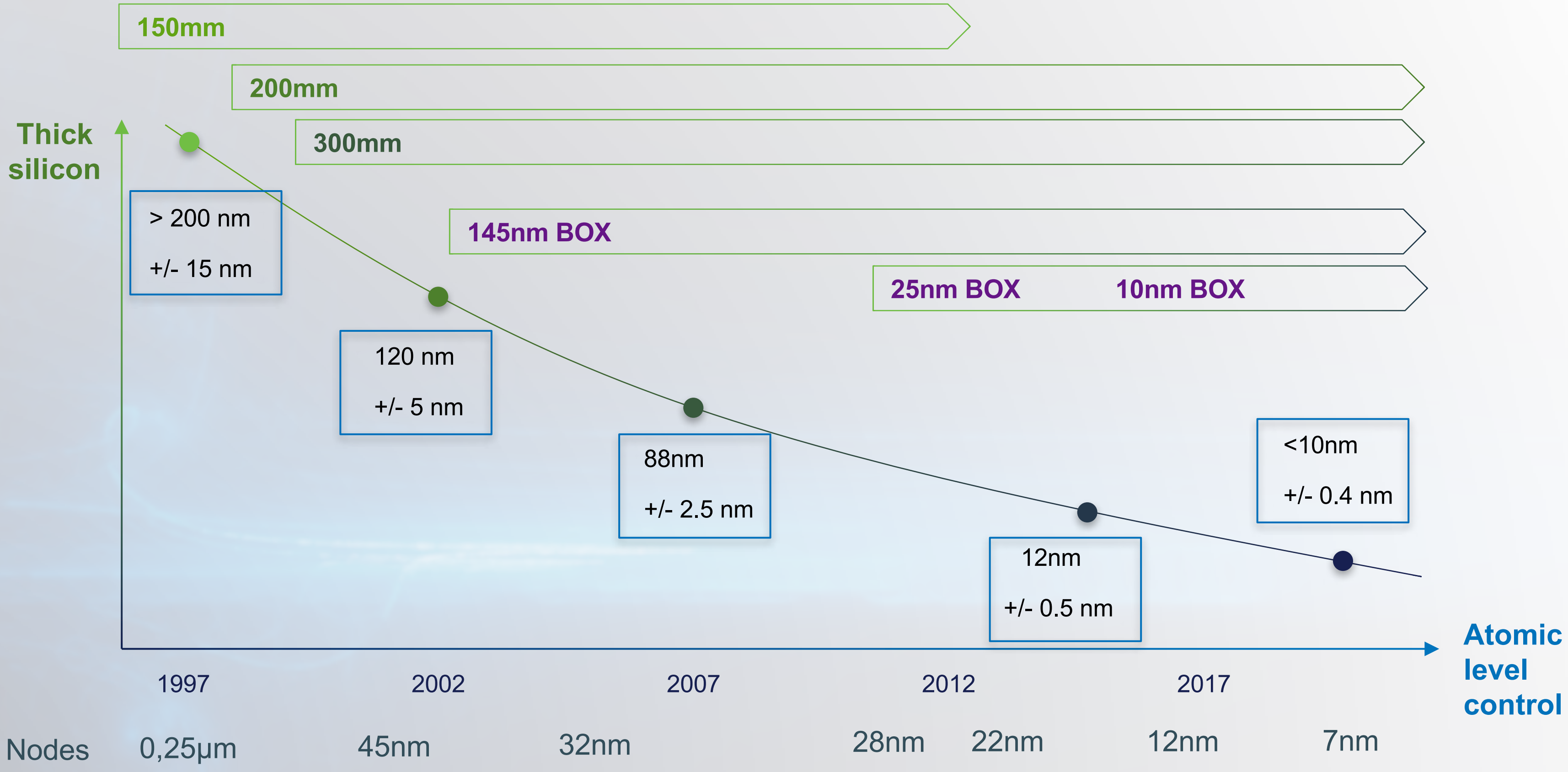


Active layer

Functional/insulator layer

Base wafer = mechanical support
Silicon or easy to handle & active

Benefiting from 25 years of SOI innovation



150mm

200mm

300mm

145nm BOX

25nm BOX 10nm BOX

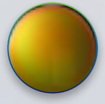
Thick silicon

Atomic level control

Year	Thickness
1997	> 200 nm +/- 15 nm
2002	120 nm +/- 5 nm
2007	88nm +/- 2.5 nm
2012	12nm +/- 0.5 nm
2017	<10nm +/- 0.4 nm

Nodes 0,25µm 45nm 32nm 28nm 22nm 12nm 7nm

Soitec technology beyond SOI


Silicon On Sapphire

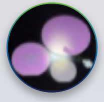

Piezo On Insulator


InGaN On Sapphire


InP On GaAs


GaAs on Silicon


SiC on pSiC


Silicon On Quartz


SiGe on Silicon

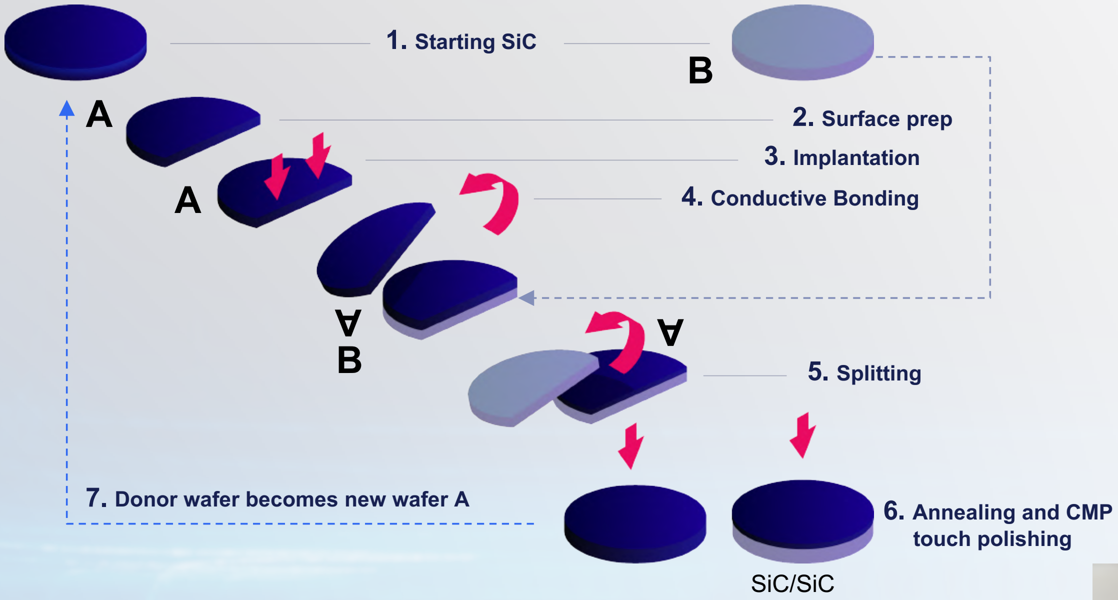

GaN on Sapphire


Ge on Silicon

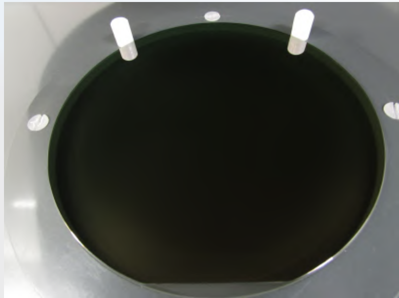

InP on Silicon

- Advanced R&D on material diversification
- Value creation through materials engineering and early feasibility demonstration
- Ready for quick product deployment to meet time-to-market

Silicon Carbide: Smart Cut technology



- Smart-Cut tuned with conductive bonding
- 150mm capability, 200mm in preparation
- Wafer refresh strategy leading to cost-efficient manufacturing



SiC: New substrate development

- Leverage Soitec's technology to develop a new SiC engineered substrate
- Current focus on **6-inch SiC new substrate technology** (Smart Cut^{TM} of SiC already demonstrated in 3-4 inch in 1999)
- Sampling 150mm for device development / developing 200mm

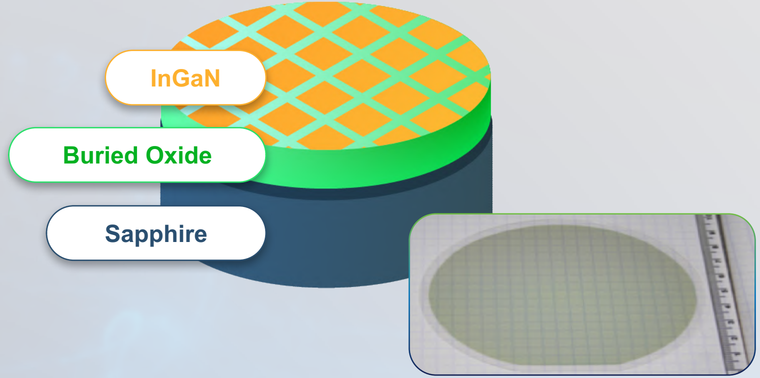
Existing substrate technology
(epi-ready SiC)

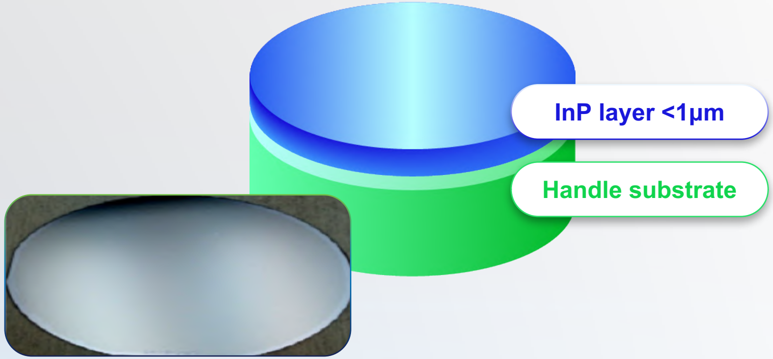
New substrate technology
(epi-ready SiC)

Smart SiC expected advantages:

Smart SiC vs bulk = lower wafer cost, lower capex, higher yield

Compound engineered substrates Leveraging Smart Cut^{TM} for non-Si substrates





Soitec's InGaNOS substrate

- High efficiency red & green microLEDs
- Micrometer-scale LEDs
- High resolution displays

Soitec's InP epi-ready substrate

- Handle substrate GaAs or Si
- Photonics integration opportunity

Core technologies for substrate engineering

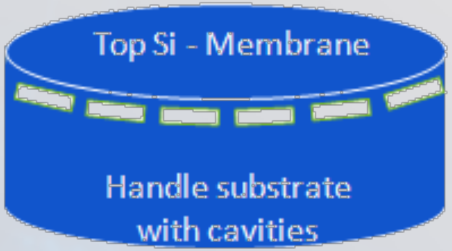
Smart technologies

- Smart Cut™
- Smart Stacking™
- Epitaxy expertise
- Modeling & simulation
- Characterization & metrology

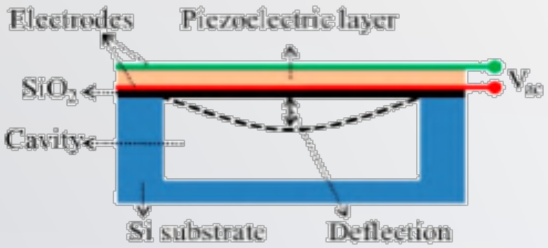
Technology platform

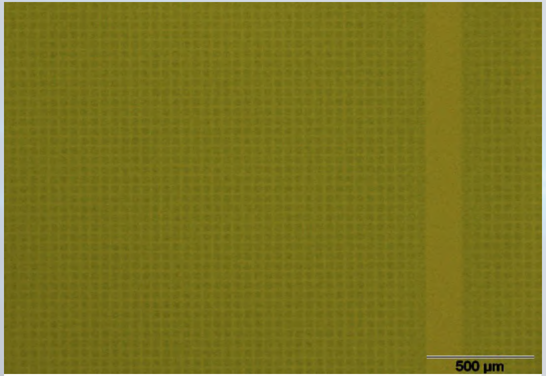
- RF-SOI
- FD-SOI
- POI Filter
- Power
- MEMS (thin membrane)
- 3D stacking
- Flexible Electronics
- Compound semiconductors

Thin crystalline membranes through Smart-Cut^{TM}



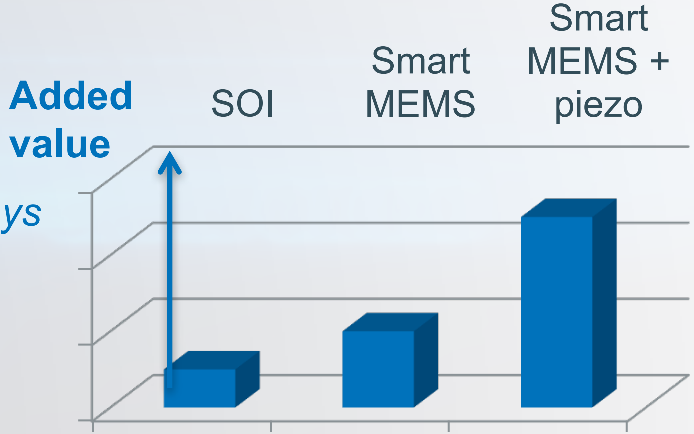
Ultrasonic sensors



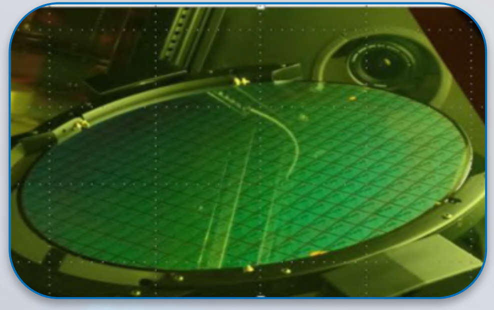


40 x 40µm² cavities – 200mm

- *Dense arrays*
- *Frequency resolution*



3D layer stacking by Smart Cut^{TM} Recent demonstrations



IEDM2018 CoolCube

leti
cea tech

VLSI2018 3D sequential stacked planar devices

imec

PARTNERING FOR BROADER ENGINEERED SUBSTRATES INNOVATION

Partnering within leading innovation platforms

- Expanding our R&D depth while keeping compatibility with internal R&D corridors
- Early prototyping, focus on lead time and quality
- Accessing new ideas, disruptive process improvements, larger expertise

Substrate Innovation Center

Tools & Materials vendors

Fabless & Systems companies

Academia

IDM & Foundries

leti cea tech

soitec

World Class Prototyping Hub of Substrate Technologies

Leti Facilities
Leti-Soitec Joint Team

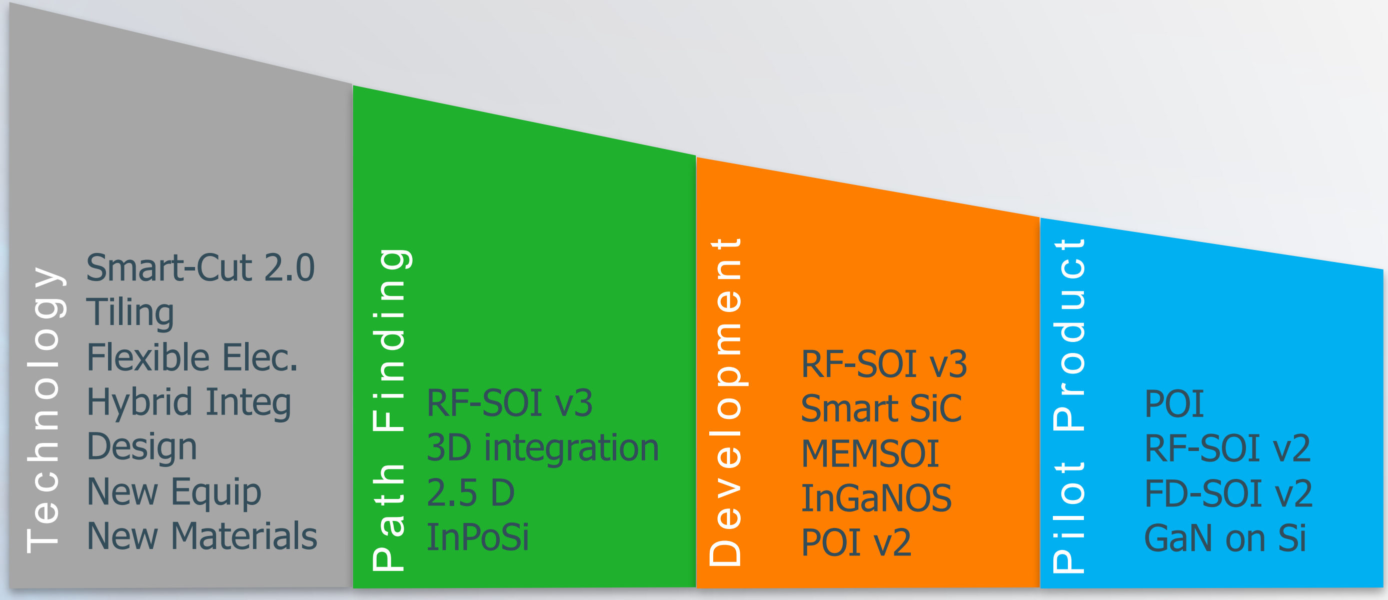
- Substrate Solutions
- Sampling & Prototyping
- Exploratory Solutions
- New Applications

- Become a worldwide center of technological excellence in the semiconductor ecosystem
- Integrate major actors to increase the capabilities for advanced substrates development and prototyping

Conclusions

From technology to products roadmap

- Balanced innovation process between technology and product focus
- Product life cycle synchronized with time-to-market requirements



Technology
Smart-Cut 2.0
Tiling
Flexible Elec.
Hybrid Integ
Design
New Equip
New Materials

Path Finding
RF-SOI v3
3D integration
2.5 D
InPoSi

Development
RF-SOI v3
Smart SiC
MEMSOI
InGaNOS
POI v2

Pilot Product
POI
RF-SOI v2
FD-SOI v2
GaN on Si

Innovation – Key points

- Soitec has solid foundations for business driven innovation with right time-to-market
- Soitec technologies enable new engineered substrates to support end customers’ system roadmap
- Strong collaboration across leading innovation platforms to ensure fast track from path finding to product

CAPITAL MARKETS DAY

Soitec, an amazing journey

Cyril Menon
EVP Operations

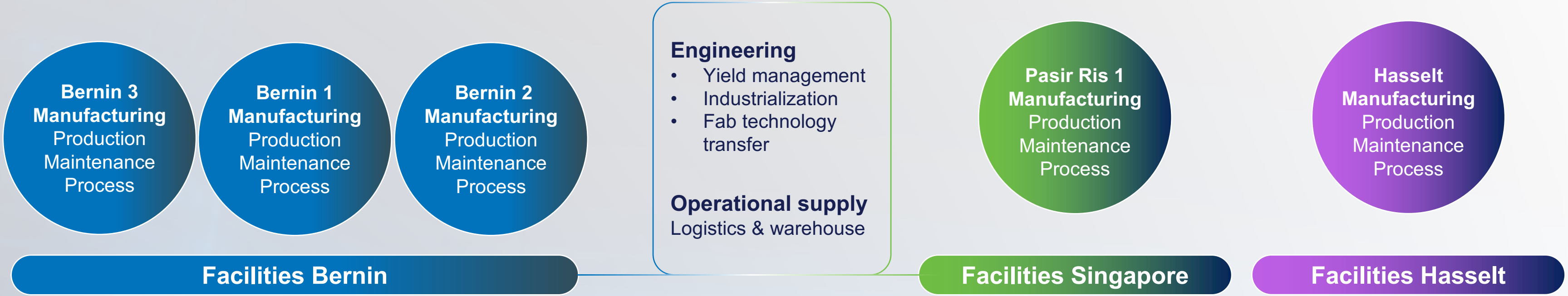
Cyril MENON

Executive Vice-President Operations

An agile and scalable manufacturing model to support growth

1. An efficient organization
2. A global multi-site industrial footprint
3. An agile and scalable manufacturing
4. Integration of CSR strategy into operations

Operational excellence deployment to new sites/geographies



Bernin 3
Manufacturing
Production
Maintenance
Process

Bernin 1
Manufacturing
Production
Maintenance
Process

Bernin 2
Manufacturing
Production
Maintenance
Process

Facilities Bernin

Engineering
- Yield management
- Industrialization
- Fab technology transfer

Operational supply
Logistics & warehouse

Pasir Ris 1
Manufacturing
Production
Maintenance
Process

Facilities Singapore

Hasselt
Manufacturing
Production
Maintenance
Process

Facilities Hasselt

- Accelerate volume increase by bringing together the industrialization and manufacturing teams
- Ensure our customers the same level of operational excellence on each of our production sites
- Replicate our ability to perform aggressive ramp-up

A global multi-site industrial footprint

Bernin 2
Pasir Ris

Total 300-mm capacity
→ 0.9 M wafers/y.
by FY'20

Bernin 1
Simgui

Total 200-mm capacity
→ 1 .3 M wafers/y.
by FY'20

Bernin 3

Total 150-mm capacity
→ potential of 0.4M
wafers/y

RF-SOI | Photonics-SOI | Power-SOI

Soitec Bernin 1, France - HVM
950K wafers/y. capacity

GAN epitaxial wafer

EpiGaN Hasselt, Belgium

RF-SOI | Imager-SOI | Photonics-SOI | FD-SOI

Soitec Bernin 2, France – HVM
650K wafers/y. capacity with plan to extend to 1M

Power-SOI | RF-SOI

Simgui, China - HVM
180K wafers/y. capacity going to 360K wafers/y.

POI

Soitec Bernin 3, France –Ready HVM
15K wafers/y. capacity with plan to extend to 400K

RF-SOI | FD-SOI | Other SOI Products

Pasir Ris, Singapore - HVM
Planned capacity: 1M wafers/y.

A robust and efficient industrial organization

100%
of our toolset uses standard equipment

150
engineers
with various skills

>80%
work on shift
to cover 365 days a year

In-line scrap reduced by
30%
in **2** years

800
employees in Bernin and Singapore manufacturing plants

>90%
of maintenance and support performed internally

Generating higher value through continuous improvement

Industry 4.0 – smart sampling

Smart solution based on statistical data to identify the most relevant sample to inspect

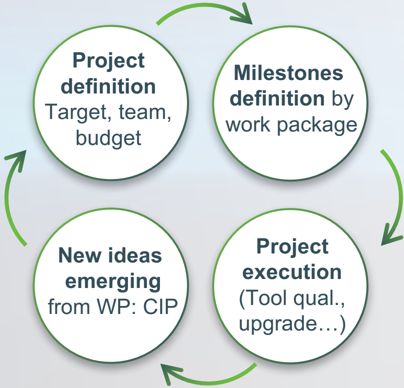
Autonomous 200mm vehicle

Introduction of autonomous simple and scalable 200mm solution when productivity benefit make sense

Automatic pattern recognition

Automatic learning solution to detect & classify defects

Agile ramp-up project management



Project definition Target, team, budget

Milestones definition by work package

Project execution (Tool qual., upgrade…)

New ideas emerging from WP: CIP

- Execute a project ramp through standard milestones tracking as well as integrate new process improvement
- Step-by-step decisions in order to manage agility versus product mix

From actions to KPIs

Cost per wafer 300mm

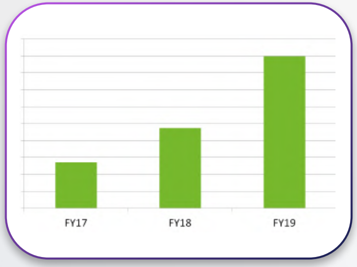
Operational excellence driving substantial process cost improvement

Soitec Bernin 2, ramp-up management

Ramp-up management

X4

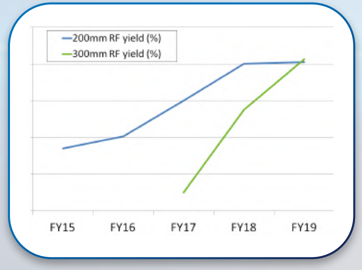
within 2 years



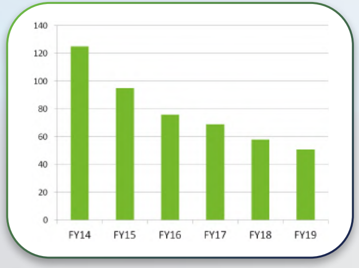
RF-SOI yield 300mm ramp-up

Yield 300mm RF over-performing 200mm RF in

18 months



Soitec Bernin, power consumption per wafer (Kwh/w)



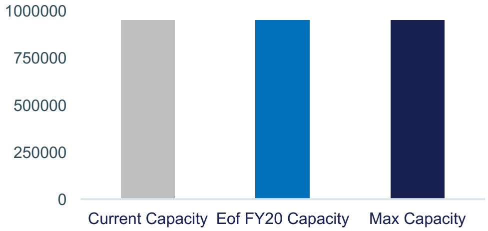
Energy saving per wafer

-60%

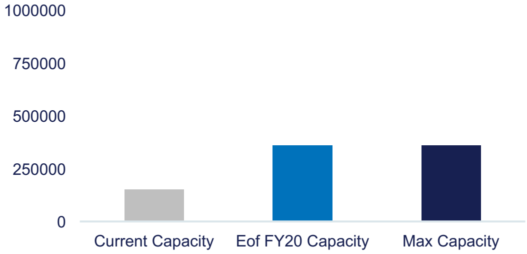
within 5 years

An agile manufacturing:
Ability to upgrade current capacities on various locations

200mm fabs

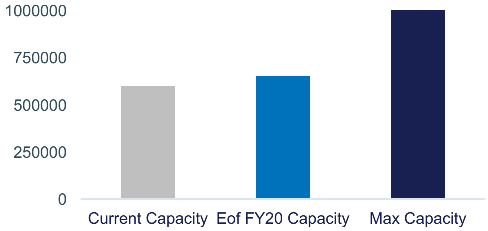


Bernin1

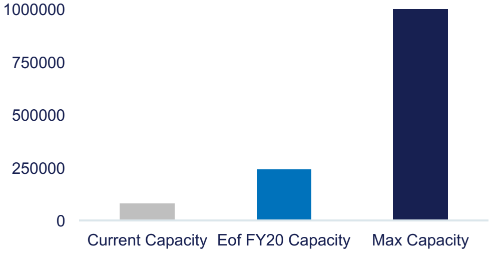


Simgui

300mm fabs



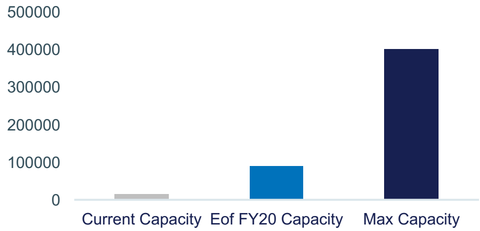
Bernin2



Singapore

Beyond SOI

150mm POI



Bernin3

300mm Singapore fab: multi-product & agile

Soitec, Pasir Ris 1, HVM

Products manufactured in Singapore

- FD-SOI
- BULK Refresh
- BULK Epitaxy
- RF-SOI

Status

- 80kwpy SOI capacity installed and qualified for both FD-SOI & RF-SOI
- Key material process steps (epitaxy for RF-SOI and refresh for SOI) are qualified and running HVM

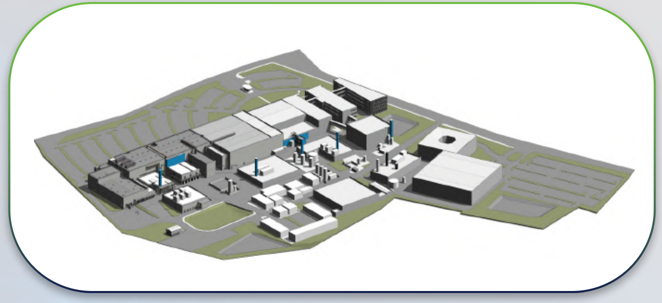
Outlook

- SOI ramp-up has started early FY20

A scalable manufacturing:

300mm Bernin fab, preparing the next industrialization phase

Soitec, Bernin extension, France



French authorities support Nano 2022 → IPCEI* signature

PRÉSENCES-grenoble.fr

Suivez-nous sur

Nano 2022 : la "reconquête industrielle"

Le 15 mars, Bruno Le Maire, ministre de l'Économie et des Finances, a lancé le Plan Nano 2022 à Crolles. Un programme ambitieux marquant une volonté de reconquête industrielle, à l'échelle européenne. Les géants de la filière à Grenoble – STMicroelectronics, Soitec, Ulis-Sofradir, le CEA-Leti – s'en emparent pour investir massivement.

Présences consacre un dossier exclusif aux enjeux de Nano 2022.

Retrouvez-le en avant-première sur notre site : [Nano 2022 : la "reconquête industrielle"]

Fab 5G project to be implemented as an extension of current French asset to support 5G application product

Status & outlook

- Full investment to reach 650kwpy capacity in B2 has been implemented in the current building
- Develop & industrialize new products to support 5G application
- Extension will be able to increase 300mm Bernin capacity from 650K to 1000Kwafers/y
- Detailed engineering design has been delivered, ground breaking to be started in H2FY20

**IPCEI: Important Project of Common European Interest*

Embedding corporate social responsibility (CSR) into operations

Reduce waste

New in-situ methodology treatment induces a 2X reduction of external chemical waste treatment

Deploy best practices on various sites

ISO 50001 ENERGY MANAGEMENT
ISO 14001
ISO 18001

Bernin 1, 2 & 3 already certified

100% renewable energy

ISO 9001 CERTIFIED

Pasir Ris1 certified ISO9001 early CY19

Promote biodiversity on site

Save/re-use energy

Upgrade facilities infrastructure to:
- collect energy & re-use it
- implement system addressing reliability as well as energy saving

Leading to 60% energy savings per wafer within 5 years

Embedding CSR into operations & beyond

Gender equality - women representation: 33%

Promote Gender Equality

- Develop diversity and promote hiring of women
- Promote the development of women in the company
- Communicate through various newsletters, forums, articles.

Low impact transport

Reduce environmental footprint of SOITEC activity by:

- Facilitating home office
- On-site electrical charging station
- Electrical bicycles on site
- Car pool promotion

Commitment to disabled workers: 5,8%

- Adapt site infrastructure to facilitate daily activities
- Organize a specific recruitment forum (LinkDay) to promote hiring of disabled workers
- Design workstation into various areas of the fabs

Family & school days on Bernin site

Operations – Key points

- Agile and scalable operations - multi-products and multi-sites
- Support profitable growth and industrialization of innovative products
- Develop supply chain flexibility at competitive cost
- Maximize asset/fab utilization

CAPITAL MARKETS DAY

Conclusions

Paul Boudre
Chief Executive Officer

soitec

Ready to achieve our new ambition

Establish our leadership across all engineered substrates

OUTLOOK THROUGH OUR JOURNEY

2018/2019

Sales

€444m

EBITDA margin 34,3%

2019/2020

Sales

+30% PCC

EBITDA margin ~30%

2021/2022

Sales

~€900m*

EBITDA margin ~31%

*outlook based on €/$ at 1.13

THANK YOU

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- Soitec

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www.soitec.com

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