OpenPICs WP3

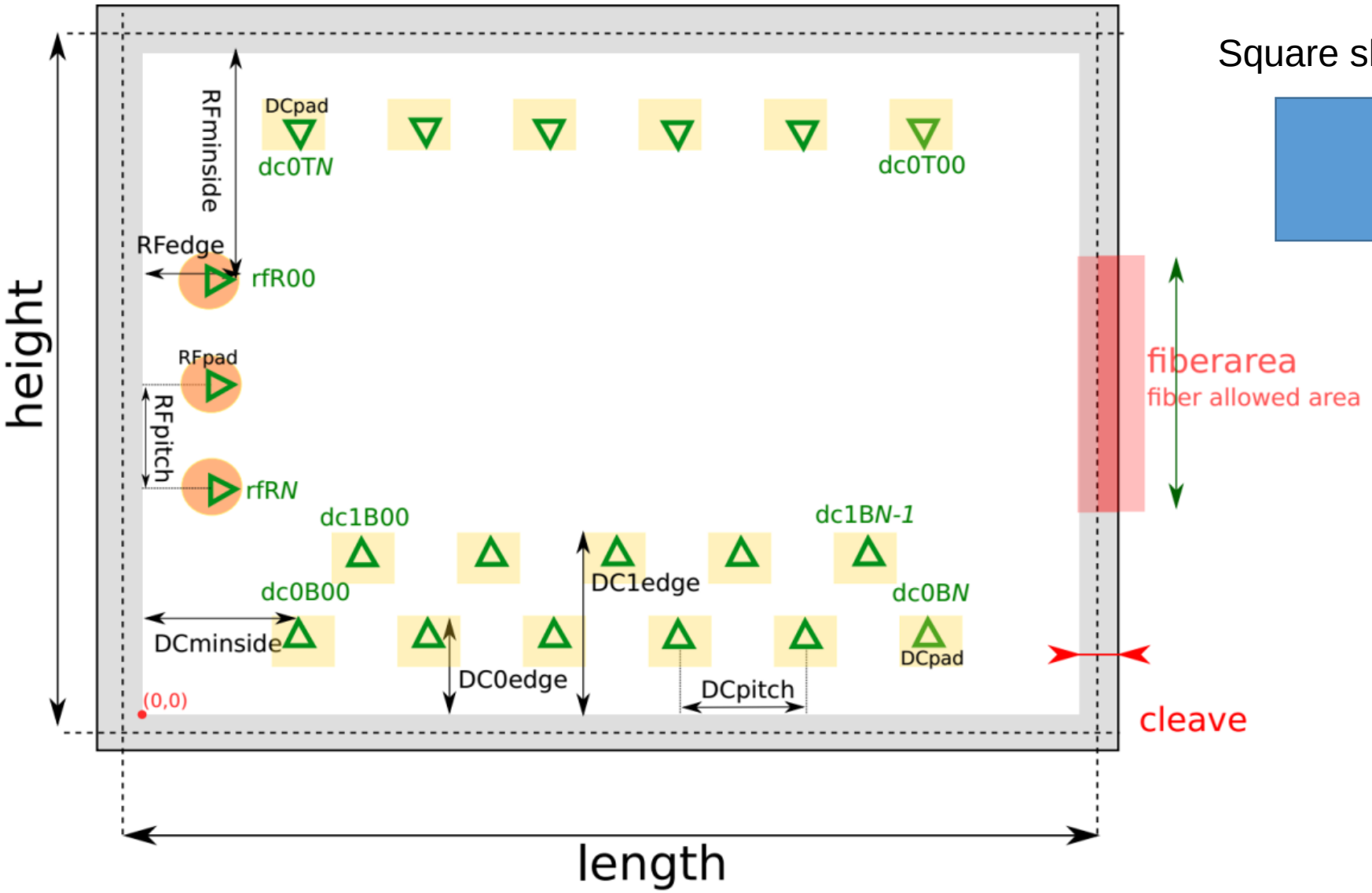
Agenda - Part I (start 14:00)

1. **Last meeting's action points**
2. **Progress and issues to be raised per partner**
   a. **TU/e**
   b. **Smart Photonics**
   c. **Bright Photonics**
   d. **Effect Photonics**
   e. **Technobis**
3. **Summary**

Last Meeting

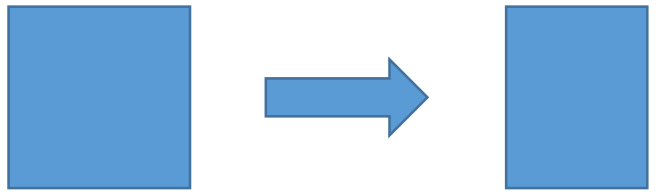
Nr.	Description	Responsible
1.	**SP22 Cells** Presentation of composite BB and RF line cells	
	SP19 Results Discussion on metal opening and minimum width dimensions	
2	**SI library** Rui comments that development of a separate library for semi-insulating substrate could be started.	
3	**SP20** Metal has adhesion problem on some chips of SP20. This has not been transparently communicated	
4	**Wafertesting** Smart focuses first on Effect photonics chips and performs Gage R&R on multiprobe testing	
Action	**PixApp pad layout** Align with most up-to-date pixapp pad layout	Weiming

Pad layout



Square shaped

Elongated in WB direction

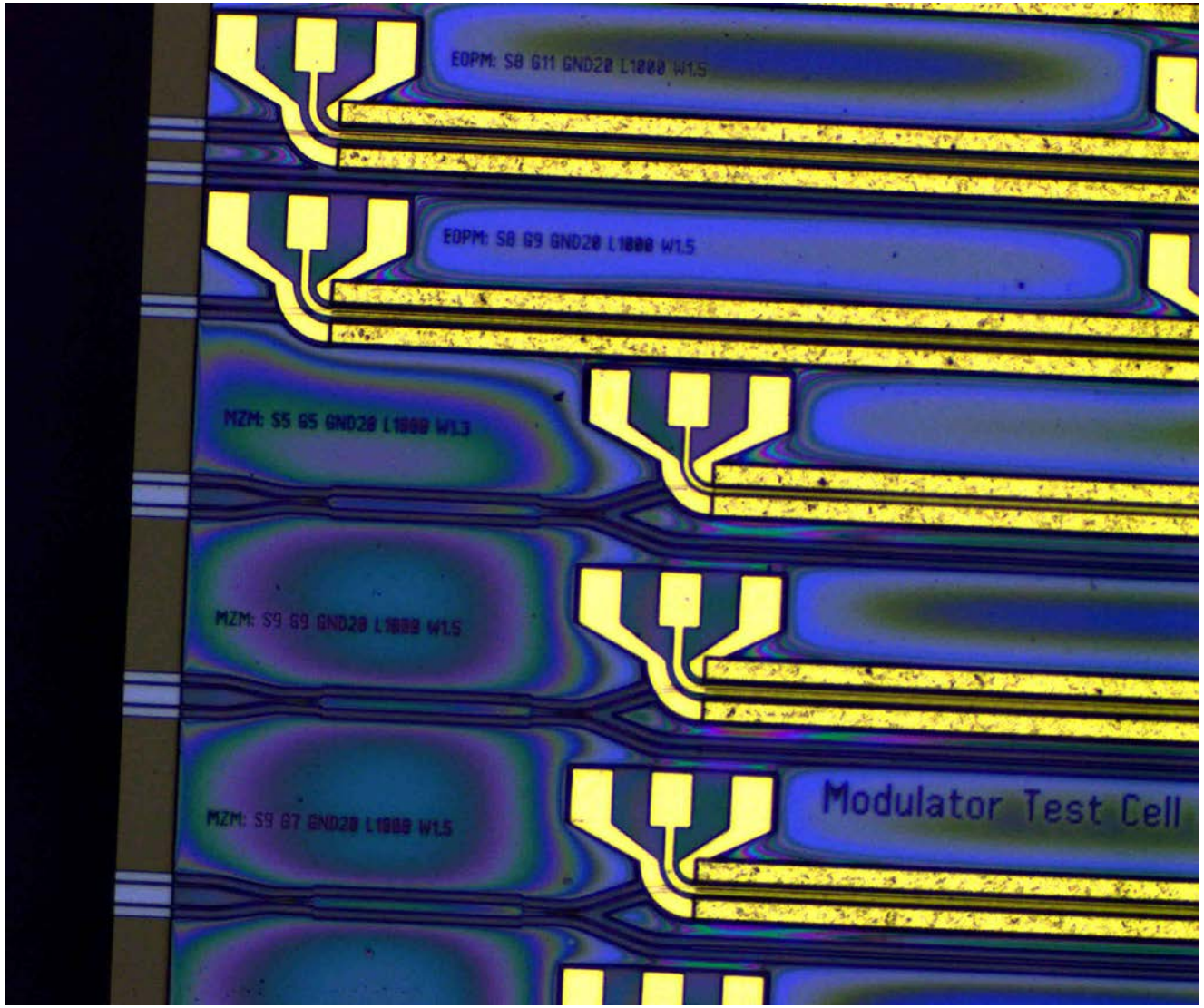


SP 20 MZM


SP0018 SP20A
Batch ID:SP20A
Wafer ID:SPL232-2
Gel pack ID:27 AR coated
Weiming Yao
Open pics WP3
SMART PHOTONICS
Independent InP Foundry
Gel-Pak
SP0018 SP20B
Batch ID:SP20B
Wafer ID:SPL229-5
Gel pack ID:27 Ar-coated
Weiming Yao
OpenPics WP3
SMART PHOTONICS
Independent InP Foundry

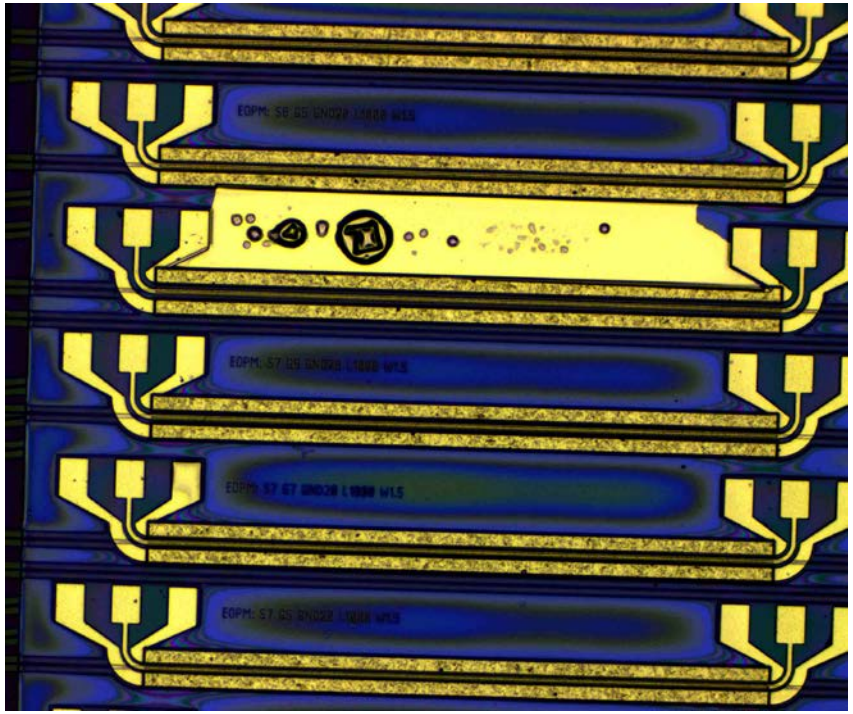
N?

SI?

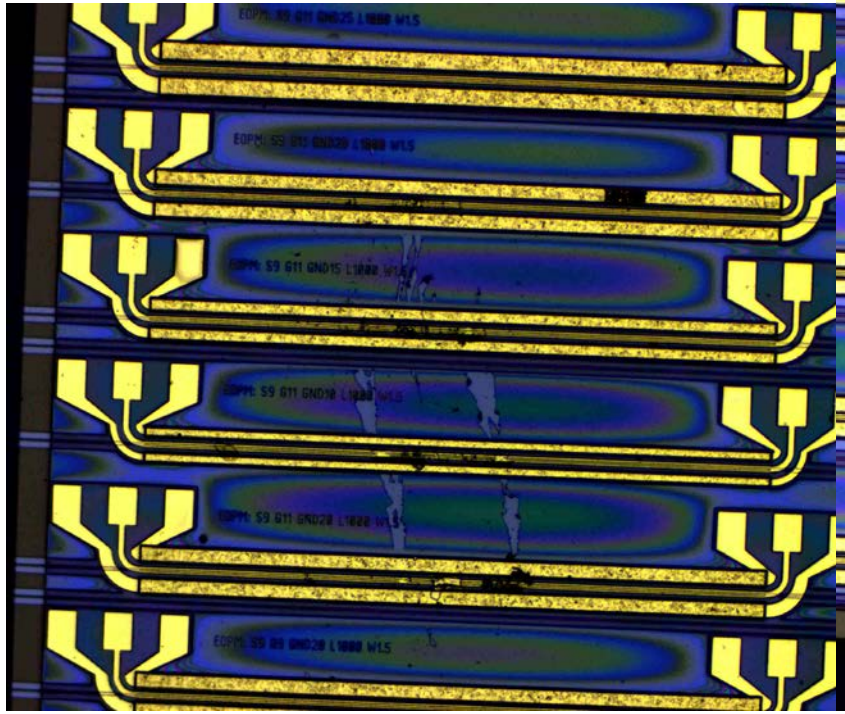

EOPM: S8 G11 GND28 L1000 W1.5
EOPM: S8 G9 GND28 L1000 W1.5
MZM: S5 G5 GND28 L1000 W1.5
MZM: S9 G9 GND28 L1000 W1.5
MZM: S9 G7 GND28 L1000 W1.5
Modulator Test Cell

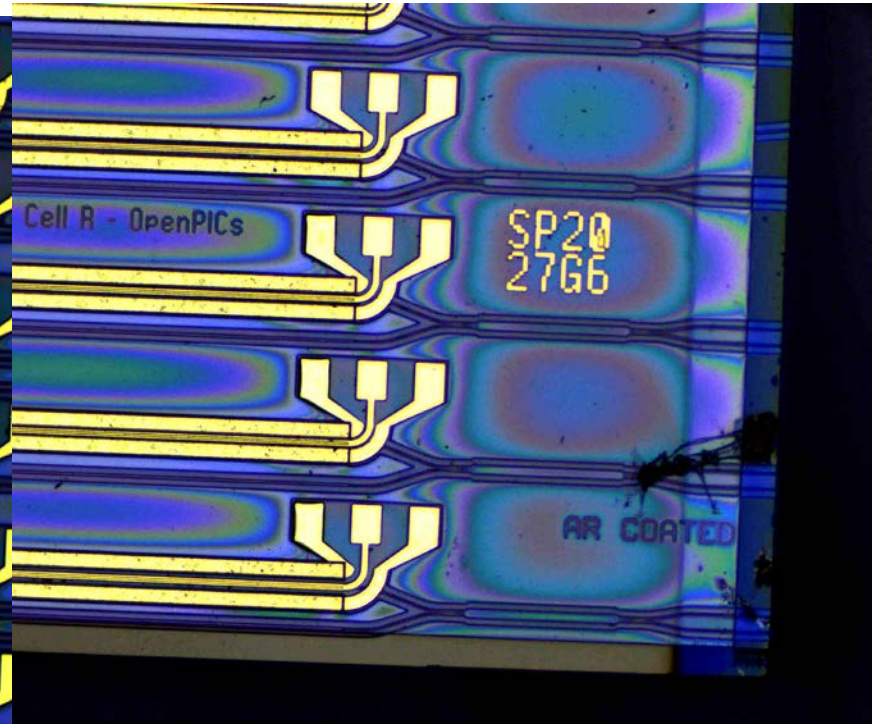
More images SI

27C9

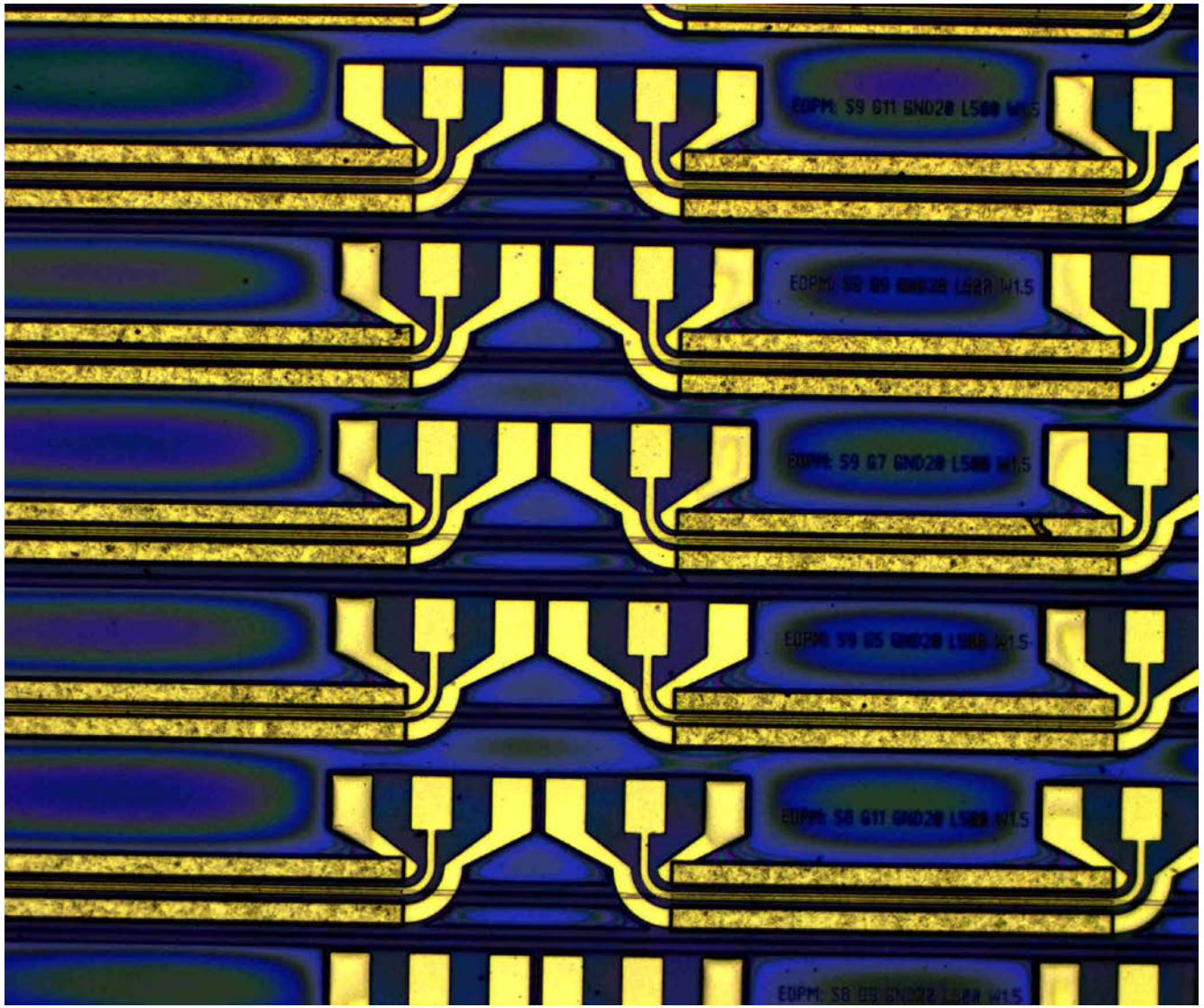


27G6

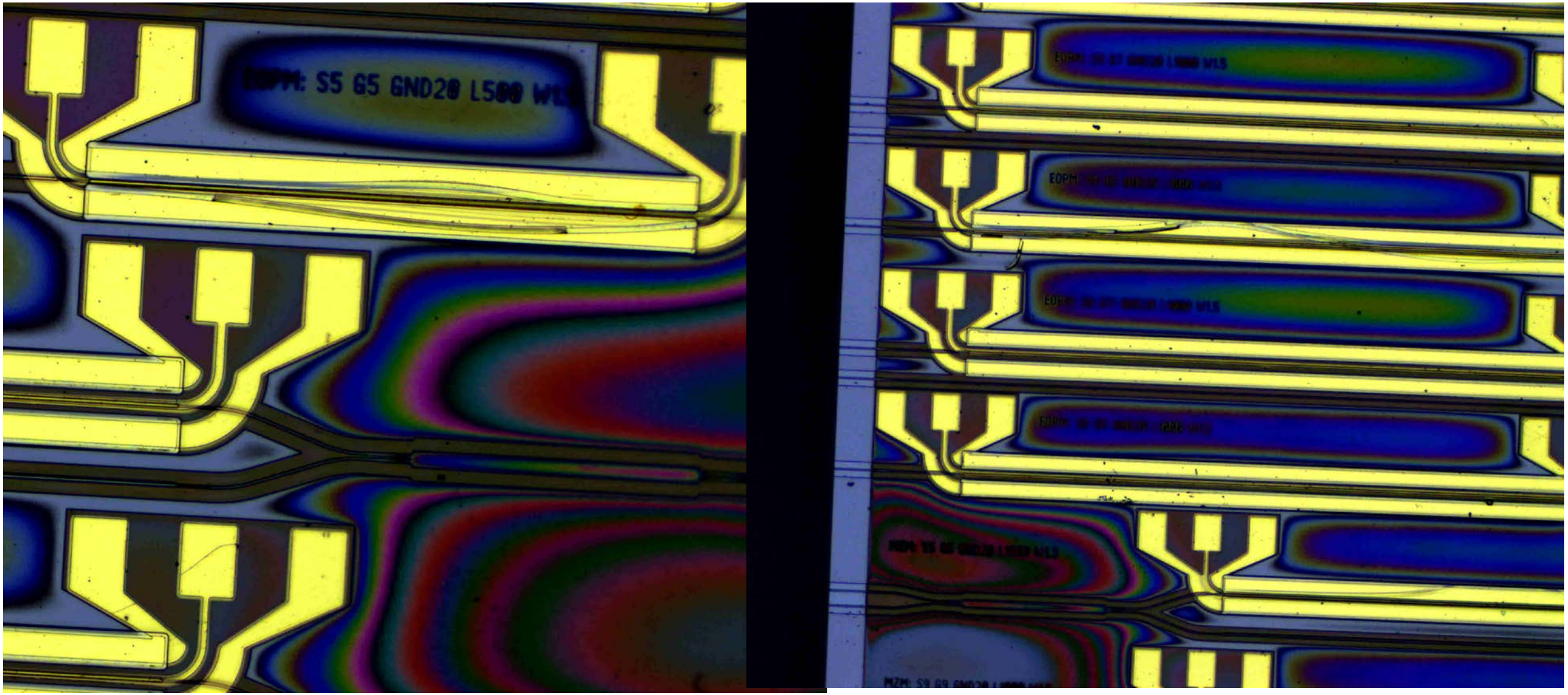




P to N metal SI



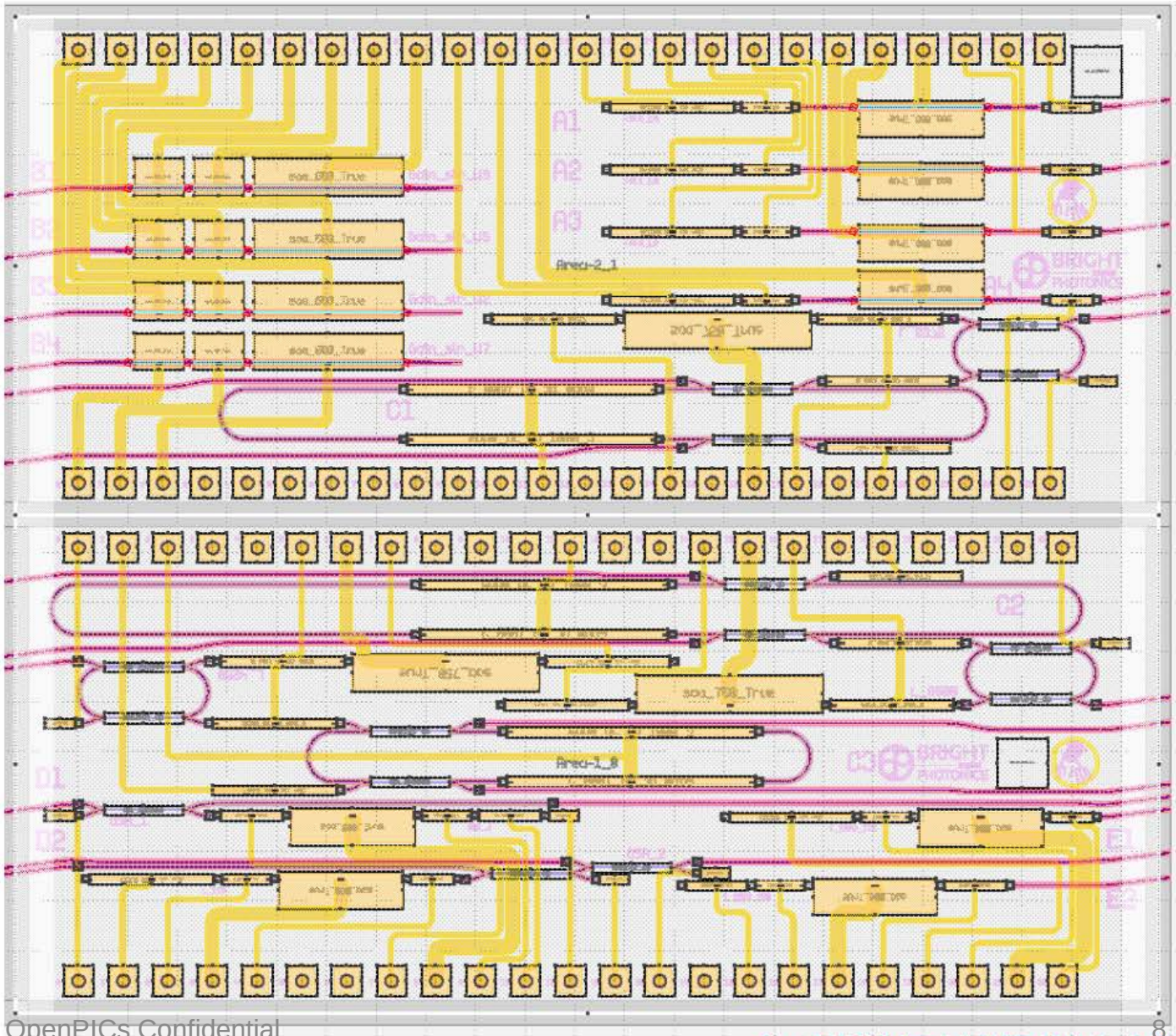
N+



SP 22 mask design

Circuits included:

1. Extended cavity tuneable lasers.
2. “High power” lasers with wide SOA
3. Gain measurements test structures for wide SOAs
4. Test structures for DBR laser based spectrometer



Agenda - Part II (start 15:00)

1. **Last meeting's action points**
2. **Progress and issues to be raised per partner**
   a. **TU/e**
   c. **Bright Photonics**
   d. **Phoenix**
3. **Summary**

Work Package 3 - Building Block Improvement						
ID	Title	Responsible	Due Times	Reoccurrence		
WP 3.1	*BB Design*					
WP3.1.M0	Technology and Design Concept	Weiming, Ronald	Dec-16			
WP3.1.R0	Analysis and Design	Weiming, Ronald	Jun-17			
WP3.1.M1	Mask Design Tape-out I	Weiming, Ronald	Jun-17			
WP3.1.R1	BB Results I	Weiming, Ronald	Mar-18			
WP3.1.M2	Mask Design Tape-out II	Weiming, Ronald	Sep-18			
WP3.1.R2	BB Results II	Weiming, Ronald	Jun-19			
WP 3.2	*PDK Content*					
WP3.2.M0	State of the PDK	Rui	Dec-16			
WP3.2.M1	Definition of basic BB figure of merits	Rui	Mar-17			
WP3.2.M2	Definition of composite BB FoM	Weiming	Mar-17			
WP3.2.R0	Definition of measurement procedures	Weiming	Jun-17			
WP3.2.R1	PDK upgrade with new advanced BB	Rui	Mar-18			
WP3.2.R2	Compact Models	Rui	Jun-18			
WP 3.3	*BB Characterization*					
WP3.3.R0	Design of Standard MPW BB test cell	Weiming	Mar-17			
WP3.3.M0	Report on standard MPW BB cell results	Rui	Every MPW			
WP3.3.R1	Design of composite BB test cell	Weiming	Sep-17			
WP3.3.M1	Report on composite test cell results	Weiming	Mar-18			
WP 3.4	*Design Environment*					
WP3.4.DF.R0	Design Flow document	Marcel	Mar-17	Jan-18	Nov-18	
WP3.4.DF.R1	Improvement points	Marcel	Apr-17	Feb-18	Dec-18	
WP3.4.DF.M0	Implementation of selected improvement points	Marcel	Jan-18	Nov-18	Sep-19	
WP3.4.DF.R2	Final Design flow Document	Marcel	Sep-19			
WP3.4.EF.R0	Exectution Flow document	Ronald	May-17	Mar-18	Jan-19	
WP3.4.EF.M0	Implementation of an Execution DB	Ronald	Mar-18	Jan-19	Sep-19	
WP3.4.EF.R1	Final Execution Flow document	Ronald	Sep-19			
WP3.4.PDA.M0	Development of PDAflow template	Marcel	Mar-17	May-18	Jul-19	
WP3.4.PDA.M1	Implementation of first building block	Marcel	Apr-17			
WP3.4.PDA.R0	Full documentation of template	Marcel	Mar-17	May-18	Jul-19	
WP3.4.PDA.M2	Update of Smart and TU/e PDK	Marcel	Jun-18	Dec-18	Sep-19	
WP3.4.DRC.R0	DRC requirement report	Marcel	May-17			
WP3.4.DRC.R1	Documentation of DRC capability	Marcel	Aug-17	Aug-18	Jun-19	
WP3.4.DRC.M0	DRC Implementation in PDKs	Marcel	Nov-17	Sep-18	Jul-19	
WP3.4.DRC.R2	Implementation of new DRC functionality	Marcel	Aug-18	Jun-19		
WP 3.5	*Demonstrator Design*					
WP3.5.R0	400G Transmitter concept	Saeed	Mar-17			
WP3.5.R1	Fiber sensing chip concept	Pim	Mar-17			
WP3.5.M0	400 G Transmitter Design	Saeed	Sep-18			
WP3.5.M1	Fiber Sensing Chip Design	Ronald	Sep-18			
WP3.5.M2	Results of 400G Transmitter	Saeed	Jun-19			
WP3.5.M3	Results of fiber sensing chip	Pim	Jun-19			