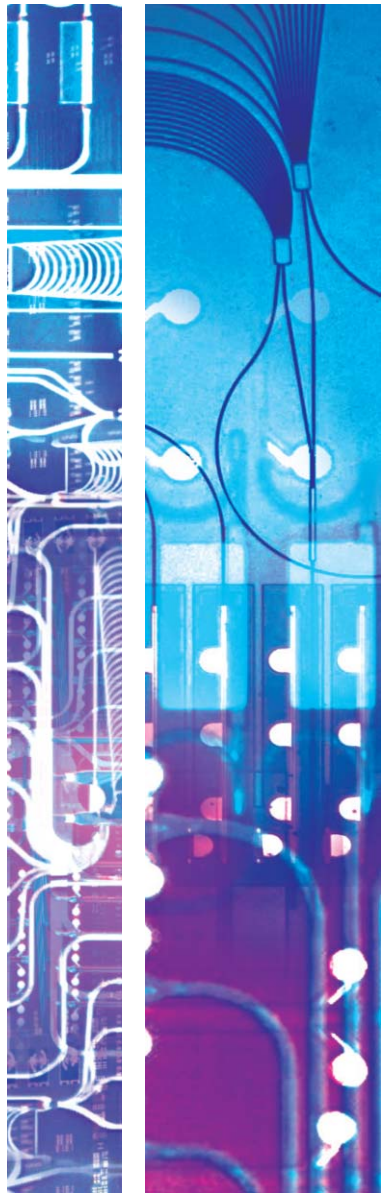
OpenPICs WP3

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: Progress of WP3**



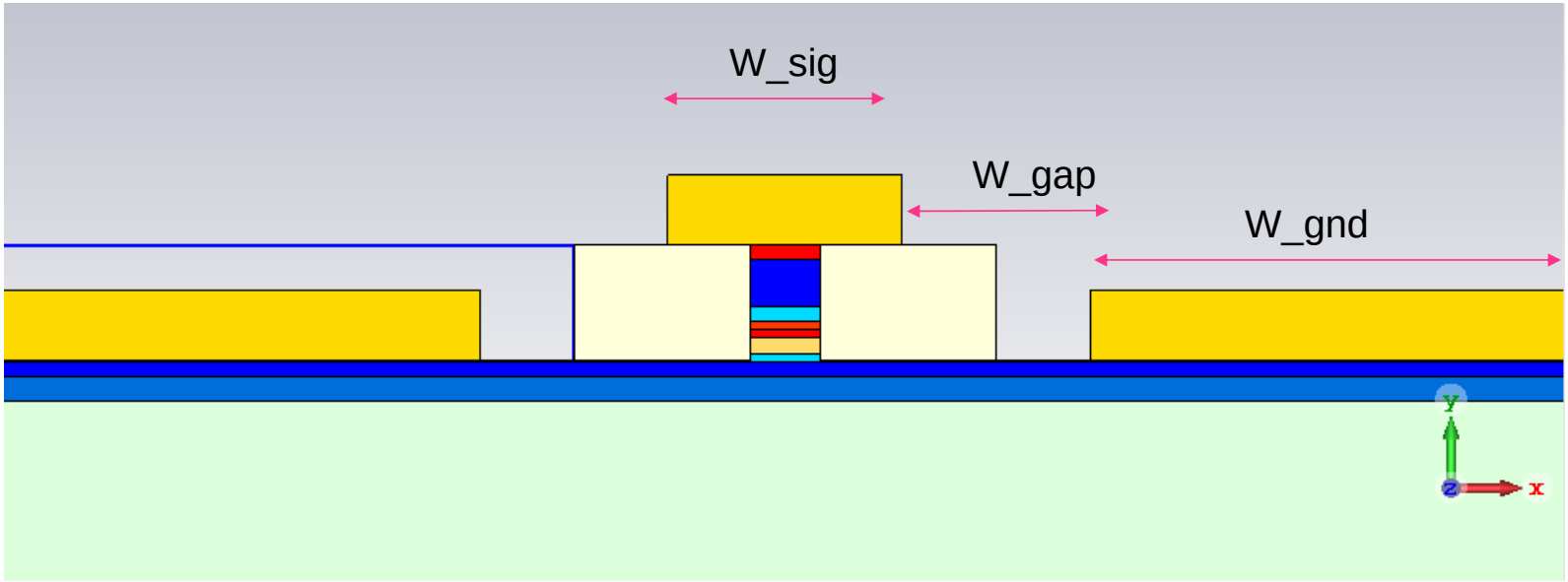
Action Points

Discussion/action points

Nr.	Description	Responsible
1.	**Zn Diffusion** Experiments for diffusion testing will be performed soon and the Smart needs to provide one of the tested wafers asap.	Rui
2.	**Modulator development** Further communication on the exact dimensions of the modulator cross section is needed before SP20. The goal is to align all partners and have technical coherence and avoid errors. Simulations will be performed to synthesize series of geometries for SP20.	Rui, Saeed, Weiming
3.	**RF lines** More detailed tolerance simulations to generate specifications to WP2 are targeted after SP20.	Weiming
4.	**Tunable Laser Development** Bright is continuing work on grating and DBR laser design for SP20.	Valentina
5.	**MPW Schedule and its featues (unchanged from last meeting)** Schedule of MPW runs and the planned features per run is needed. Information on MPW cell area assignment for SP20 in openPICs is requested.	Rui, Roel
6.	**BB Test Cell** BB Test cell pad placement is fixed and aligned to PixApp project and PCM modules pad layout. Design of test structures ongoing.	Erik/Rui, Weiming
7	**AWG test module** Ronald will design an AWG that is a compact test vehicle for AWG figure of merits such as phase error, crosstalk, center wavelength etc.	Ronald
8	**IP Issue** Regulation on project outcome needs to be found in form of consortium agreement.	Photon Delta

Modulator

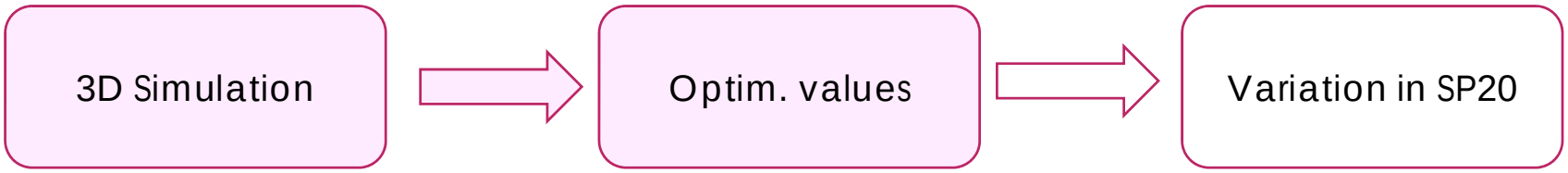
- Communicated layer stack with Smart and Effect
- 3D EM simulation for screening design space



Modulator

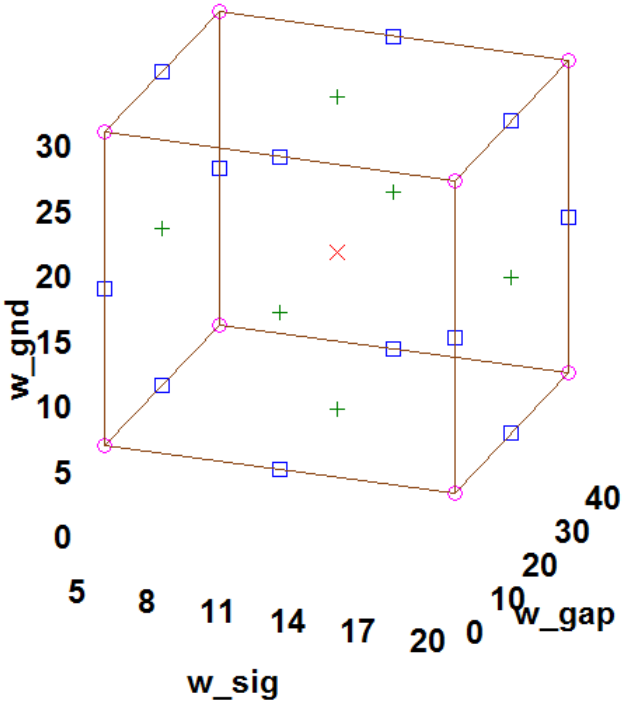
Previous insights

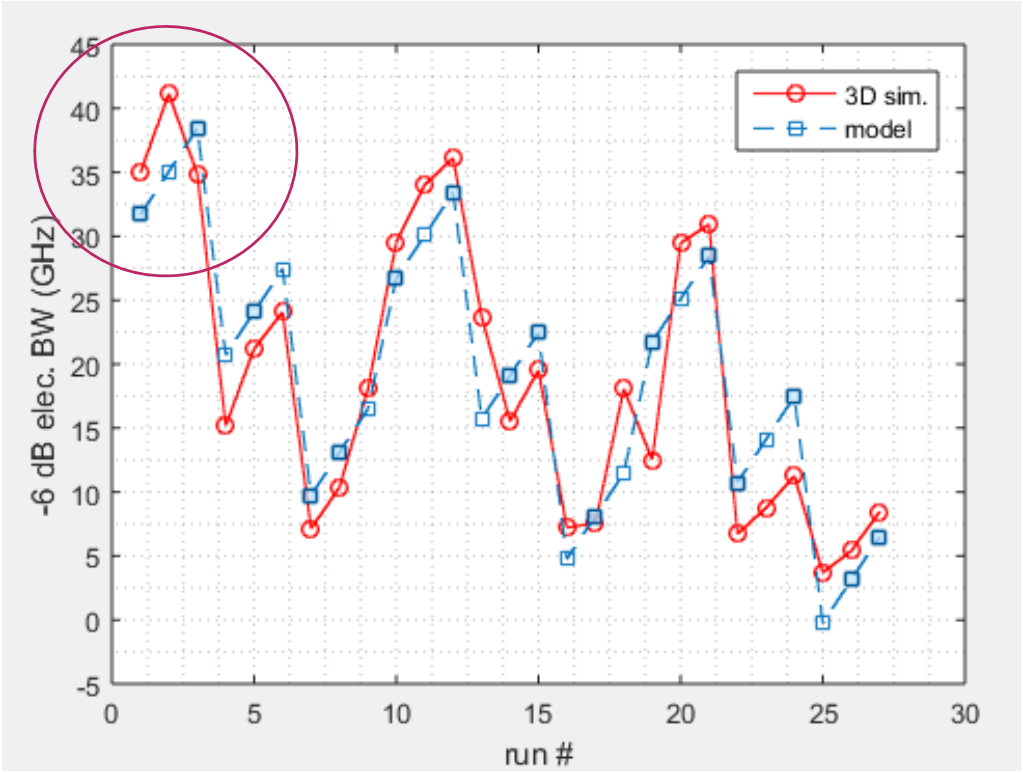
- W_sig → impedance
- W_gap → attenuation, impedance
- W_gnd → attenuation



DOE with 3D EM simulation

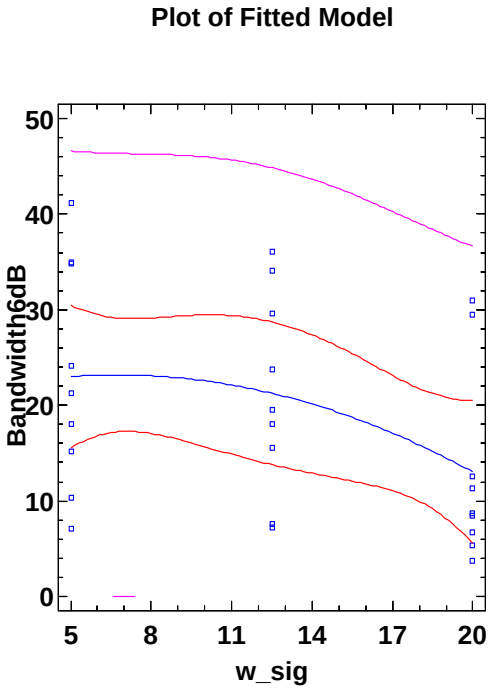
- W_sig → [5;20]
- W_gap → [4;40]
- W_gnd → [6;30]



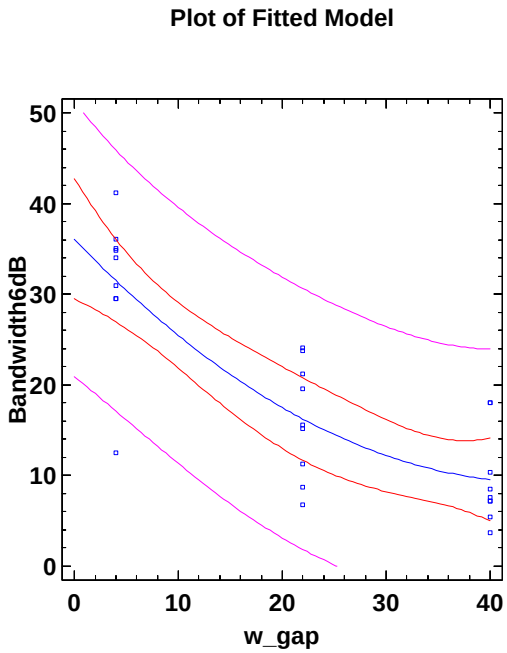


BW = A+B*w_sig+C*w_gnd+D*w_gap

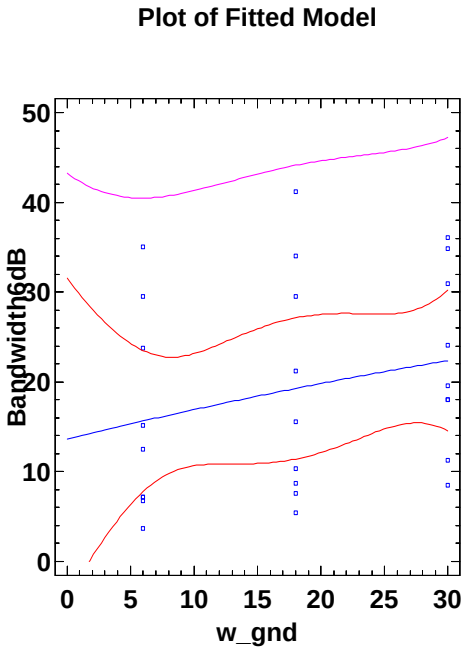
DOE with 3D EM simulation



Small influence



Strong influence



Moderate influence

Other Points

- Discussed design concepts of BB test cell with Smart
- Design of BB test cell ongoing → finish this week

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