MICRO PRINCE

Newsletter - June 2018, Issue 2

MICROPRINCE
Micro-Transfer-Printing of Functional Components on Wafer Level
Pilot Line for Micro-Transfer-Printing

Message from the Coordinator

The first year, and therefore already the first project period of MICROPRINCE, has passed and the consortium can already look back onto a successful and productive 1st year. The **MICROPRINCE** project, with its focus on building the first worldwide **pilot line** for **micro-transfer printing** of **five target applications,** is generally **on track** at the end of the first project year.

12 deliverables were submitted and the **1st milestone** was achieved within the first project year. Furthermore, 3 more deliverables were submitted since the end of the first period. With end of May 2018 also the second milestone was achieved and the printing tool is available and ready for installation.

Furthermore, all required **pilot line tools were ordered** and **various process development activities** were conducted in the first project year and are further ongoing. Moreover, a first experimental setup of the demonstrator for micro-transfer printing of LED devices has been implemented.

In this Issue

Technical and Review Meeting

- **2nd Technical Meeting, Cork (Ireland)**

From 7th to 8th March 2018, the **MICROPRINCE** consortium came together once again for a technical meeting in Cork, Ireland, at the Tyndall research institute. One of the main attractions of the meeting was to explore the Tyndall clean room facility and to participate in a demonstration of the equipment.

- **1st Review Meeting, Brussels (Belgium)**

As the first 12 months of the **MICROPRINCE** project have passed, the project partners travelled to Brussels in mid of June to present their results to the European Commission and external experts. The reviewers showed great interest in the work of the **MICROPRINCE** project, they raised interesting and qualified questions, and provided valuable feedback on the further project work. In general, the project officer as well as the reviewers were happy with the presentations and the project's smooth work progress so far.

Summing up, **the following achievements were reported**:

⇒ project is advancing well
⇒ made good progress towards technical objectives
⇒ fruitful cooperation between the project partners
⇒ successfully submitted 12 deliverables

For more detailed information about and around the project we warmly invite you to have a look at our **project website**, which is constantly kept up-to-date with the latest project related news: www.microprince.eu. Furthermore, please feel free to follow the project on Twitter: https://twitter.com/MicroprinceEU

Key Data:

Project number:	**737465**
Project website:	www.microprince.eu
Project start:	1st April, 2017
Project duration:	3 years
Total costs:	EUR 14.017.817,61
EC funding:	EUR 3.340.035,74

Consortium: 13 partners (4 countries)
Project Coordinator: **Dr. Sebastian Wicht**
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ECSEL Joint Undertaking

This project has received funding from the ECSEL Joint Undertaking under grant agreement No 737465. This Joint Undertaking receives support from the European Union's Horizon 2020 research and innovation programme and Germany, Belgium, Ireland.

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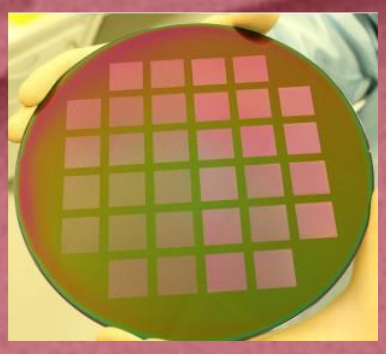
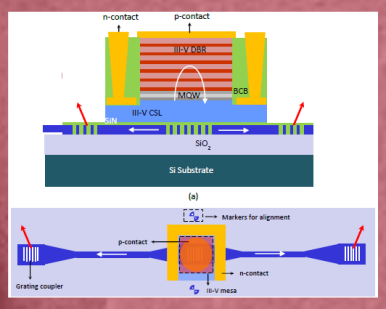
Main Achievements M01-M12

- Within **WP1** the pilot line relevant **equipment** was **specified** (D1.1) and **ordered**. Furthermore, **process development for SiN-based tethers** and Cu-RDL has been conducted.
- Concerning **WP2**, the **design specifications** and **process flow were described** (D2.1) and two complete wafers were printed with GaAs Hall elements.
- Within **WP3** the **specifications** of optical filters and sensors were defined and first **filter devices** for µTP have been prepared.
- For **WP4** design rules for **simultaneously printing 64 devices** (D4.1) were defined and tests proved **good printing accuracy** for spray coated BCB.
- Regarding **WP5** a **driver IC** for µLEDs was **manufactured** (D5.1) and utilized in a **demonstrator** device.
- Within **WP6** the **design of PDs and LEDs** for Si & SiN waveguide platforms was described (D6.1) and the **manufactured devices revealed promising results**.
- An **IT communication infrastructure (internal/external) and project website**(D7.1) have been created (server & social media accounts).
- Detailed **project quality** (D8.1) and **risk assessments plans** (D8.2) were prepared and are regularly updated.





Ongoing Activities

At the moment the project partners are working on **manufacturing the target and source wafers**, as well as on the **specifications for post-processing**. The next steps include the installation of the µTP tool as well as the implementation of the additional pilot line equipment at XMF in Erfurt. Afterwards, the evaluation of the pilot line capability by dummy devices as well as the process transfers for the different target applications are planned.
Furthermore, XMF represented **MICROPRINCE** at the **ECSEL JU Symposium** in Brussels, to increase project recognition and dissemination activities.

Within the next four months (until M18), **8 deliverables** are expected to be delivered, and the half - time mile stone (**MS3**) **will be reached in September 2018.**

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