



PROMOTiON

PROGRESS ON MESHED HVDC
OFFSHORE TRANSMISSION
NETWORKS



The need for demonstration

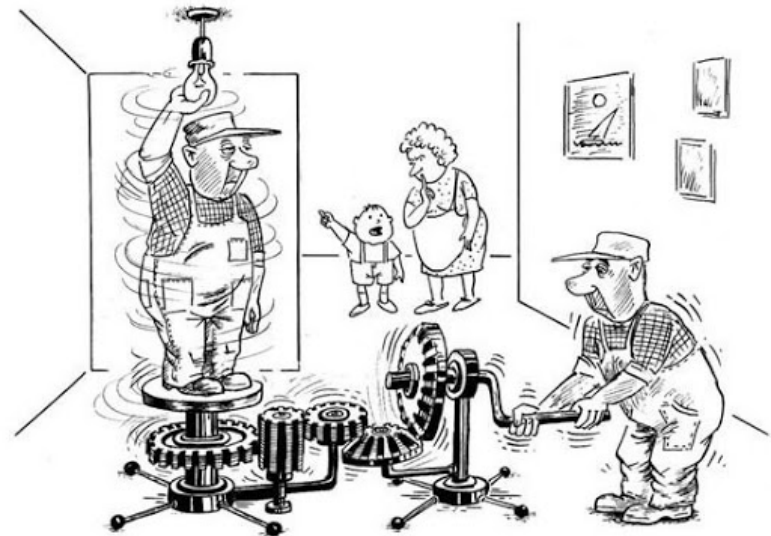
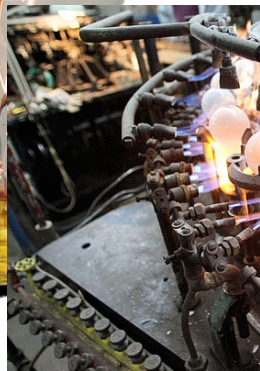
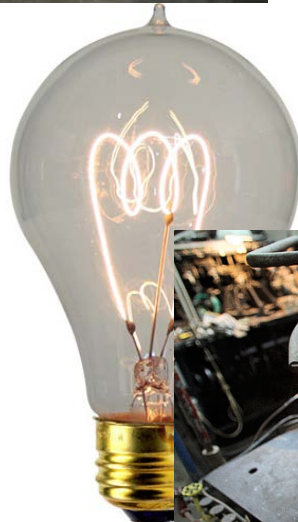
6th of June 2018 – Amsterdam – Cornelis Plet



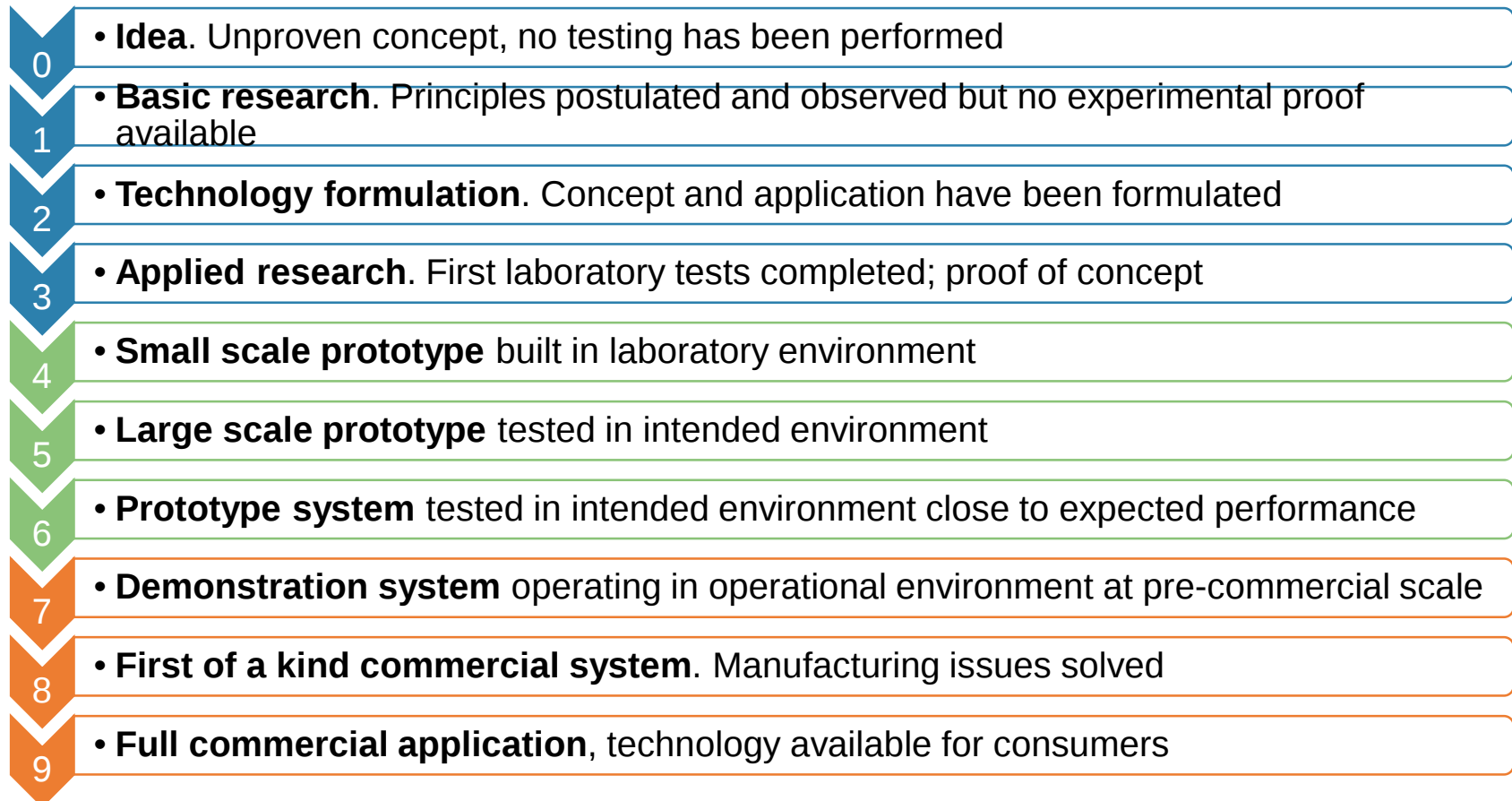
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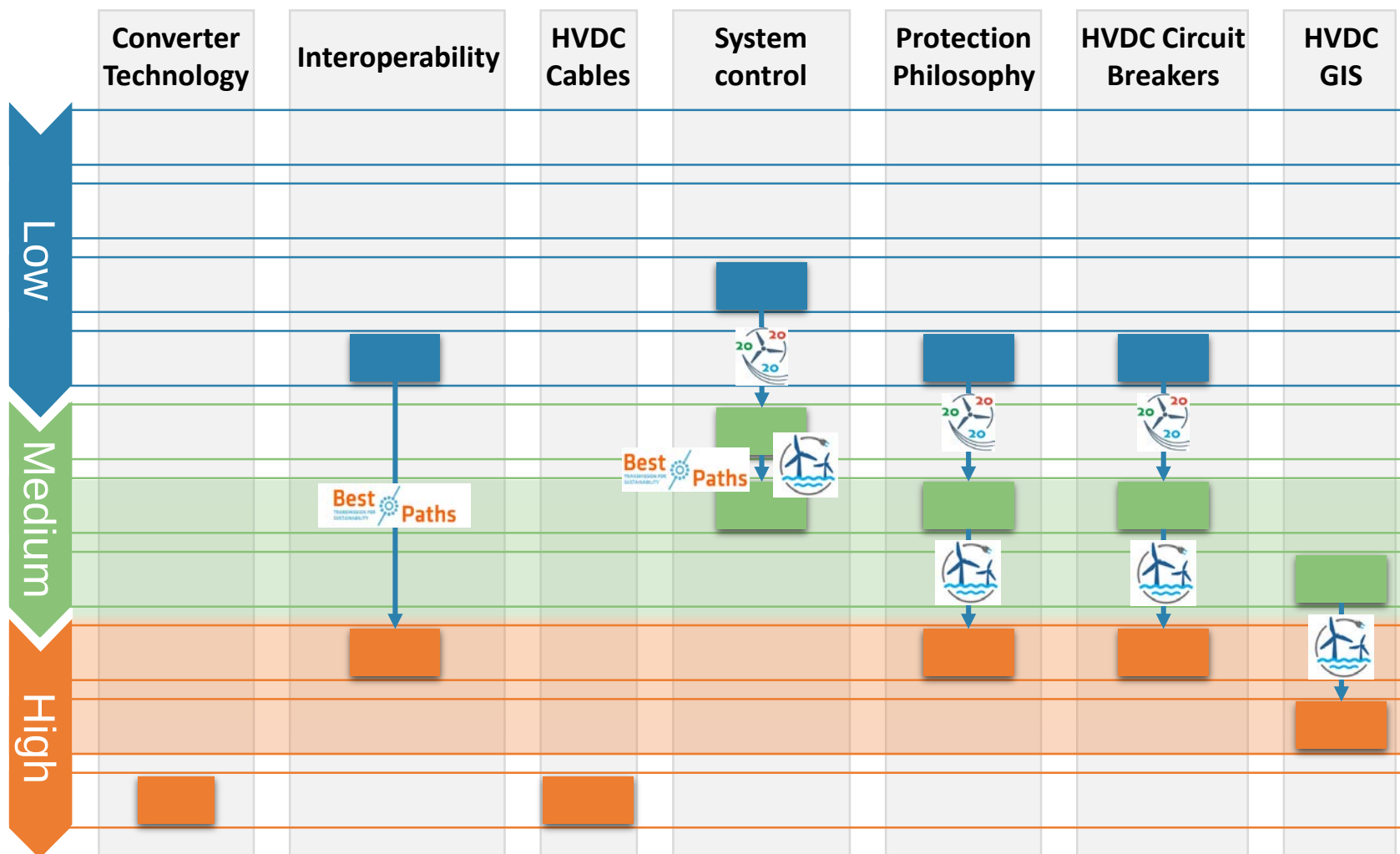
From idea to product



Technology Readiness Levels



TRL of meshed HVDC grid technologies



Demonstration considerations

- Technical maturity also relates to:
 - General acceptance and understanding of technology and its application
 - Availability of agreed testing methods and procedures
 - Availability of monitoring and condition assessment tools
- Technology
 - Component or System
 - Functionality (software)
 - Scope of test object
- Performance
 - What to test?
 - How to test?
 - What are realistic stresses?
 - What are acceptable pass criteria?
- Environment
 - What is environment? Laboratory vs intended vs commercial
 - How to deal with limitations?
 - Physical limits on voltage, current, energy, frequency
 - Computational limits



Demonstration of MOG technologies

- 14:10 - 14:20** **HVDC circuit breaker testing**
Rene Smeets, DNV GL
- 14:20 - 14:30** **HVDC protection system demonstration**
Yash Audichya, SSE
- 14:30 - 14:40** **HVDC system control demonstration**
Philipp Ruffing, RWTH Aachen
- 14:40 - 14:50** **Offshore wind turbine controller demonstration**
Lukasz Kocewiak, Ørsted
- 14:50 - 15:00** **HVDC gas insulated switchgear demonstration**
Paul Vinson, Supergrid Institute
- 15:00 - 15:10** **Best Paths & PROMOTioN – Utilizing project synergies**
Olivier Despouys, RTE
- 15:10 - 15:30** **Panel discussion**
Guest moderator: Steven de Clerck, ELIA



APPENDIX

DISCLAIMER & PARTNERS

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The opinions in this presentation are those of the author and do not commit in any way the European Commission

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