

# DIN ISO 16290:2016-09 (E)

## Space systems - Definition of the Technology Readiness Levels (TRLs) and their criteria of assessment (ISO 16290:2013)

---

<b>Contents</b>		<b>Page</b>
National foreword .....		3
Introduction .....		4
1	Scope .....	5
2	Terms and definitions .....	5
3	Technology Readiness Levels (TRLs) .....	8
3.1	General .....	8
3.2	TRL 1 -- Basic principles observed and reported .....	9
3.3	TRL 2 -- Technology concept and/or application formulated .....	9
3.4	TRL 3 -- Analytical and experimental critical function and/or characteristic proof-of-concept .....	10
3.5	TRL 4 -- Component and/or breadboard functional verification in laboratory environment	10
3.6	TRL 5 -- Component and/or breadboard critical function verification in a relevant environment .....	11
3.7	TRL 6 -- Model demonstrating the critical functions of the element in a relevant environment .....	12
3.8	TRL 7 -- Model demonstrating the element performance for the operational environment	13
3.9	TRL 8 -- Actual system completed and accepted for flight ("flight qualified") .....	13
3.10	TRL 9 -- Actual system "flight proven" through successful mission operations .....	14
4	Summary table .....	14
Bibliography .....		16