GTI

5G IN THE MOMENT

GTI Summit
Shanghai 2021

23rd Feb, 2021

GTI APP

HTTP://WWW.GTIGROUP.ORG

GTI 1.0
2011-2015

Objective

Construct a robust ecosystem of TD-LTE

Speed up the commercialization of TD-LTE

Promote the converged development of LTE TDD and FDD

GTI 2.0
2016—

Objective

Further promote 4G evolution and expand global market

Promote 5G development and cross-industry innovation

GTI Members

GTI Has Become One of The Most
Important Platforms for Industrial Collaboration

139 operators

Asia	69
Europe	31
North America	16
Africa	12
South America	7
Oceania	4

247 partners

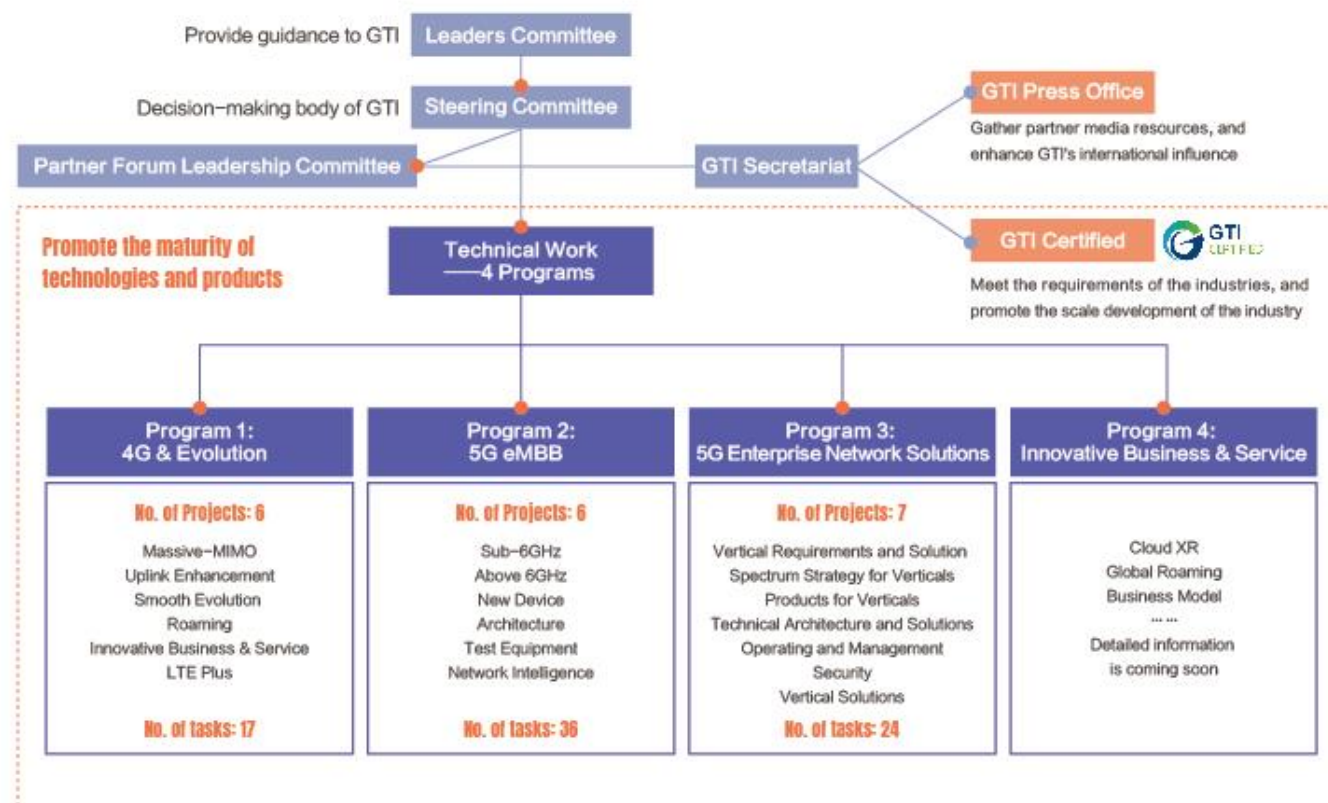|	
Terminal & Chipset	77
5G Vertical Industry	72
Infra	26
Test	21
Solution	19
Module & Antenna	17
Instrument	7
Organization	4
Other	3
IPX Providers	1

Global Organizations

Technical Architecture

Focus on **4** programs, **23** projects, **90** tasks

90+ operators and partners, **400+** technical experts contributing to the technical work

Provide guidance to GTI — **Leaders Committee**

Decision–making body of GTI — **Steering Committee**

Partner Forum Leadership Committee

GTI Secretariat

GTI Press Office
Gather partner media resources, and enhance GTI's international influence

Promote the maturity of technologies and products

Technical Work ——4 Programs

GTI Certified
Meet the requirements of the industries, and promote the scale development of the industry

Program 1: 4G & Evolution	Program 2: 5G eMBB	Program 3: 5G Enterprise Network Solutions	Program 4: Innovative Business & Service
No. of Projects: 6	No. of Projects: 6	No. of Projects: 7	
Massive–MIMO	Sub–6GHz	Vertical Requirements and Solution	Cloud XR
Uplink Enhancement	Above 6GHz	Spectrum Strategy for Verticals	Global Roaming
Smooth Evolution	New Device	Products for Verticals	Business Model
Roaming	Architecture	Technical Architecture and Solutions	... ...
Innovative Business & Service	Test Equipment	Operating and Management	Detailed information
LTE Plus	Network Intelligence	Security	is coming soon
		Vertical Solutions	
No. of tasks: 17	No. of tasks: 36	No. of tasks: 24	

Key Achievements in 2020

Accelerating 5G end-to-end maturity

Regulatory Environment

Promote the best practices for supportive 5G policies
Call for innovative policy for the sustainable development of 5G

GTI

Supportive Policies

for a Sustainable Mobile
Industry in the 5G Era

- Joint report with GSMA

--Supportive Policies for a Sustainable Mobile Industry in the 5G Era

Network

Promote maturity of Sub-6GHz and tackle technical obstacles for SA commercialization

GTI NSA Commercial Network Deployment White Paper_v2.0
This white paper will serve as a platform to share the results of test and strategies of 5G NSA commercial network deployment, parameters and performance optimization experience, thus providing a reference to industry partners to promote 5G industry maturity and accelerate its scale commercialization and evolution to SA.

GTI 2300MHz Industry White Paper_v1.0
This white paper will provide the advantages of TDD spectrum, information of 2300MHz ecosystem, suggestions for facilitating the efficient utilization and fast deployment of LTE TDD globally and smooth evolution to 5G, as well as policy recommendations for regulators to facilitate high use of spectrum efficiency.

GTI Mobile Broadband Foundation White Paper_v1.0
This white paper stresses that mobile broadband is an infrastructure of national ICT, and its development requires the joint efforts of governments, operators, and related social resources to work hand in hand on networks, users, and digital services.

GTI 5G Intelligent Network White Paper_v1.0
This white paper analyses a serious of practical use cases, intelligent network levels, intelligent network architectures of the representative use cases, and general function requirements on intelligent network elements and intelligent network management are presented as well.

Accelerating 5G end-to-end maturity

Device

Promote development of 5G device key technologies and accelerate maturity of device industry

- *Joint release GTI 5G Global Device Initiative with 27 operators and partners and speed up maturity of device*

GTI 5G Global Device White Paper_v1.0
This white paper explores the 5G multi-mode multi-band device requirements of wireless network operators and service providers deploying the latest generation of mobile broadband technology, and also highlights certain key 5G technological requirements related to multi-mode mobility and MIMO support required by GTI operators.

GTI 5G S-Module White Paper_v3.0
This white paper mainly focuses on the 5G S-Module and has been carried out in several sections in turn. It analyses the required basic functions, the hardware technical requirements, the electrical interface technical requirements, test & certification and the typical technical solutions for 5G S-Module.

GTI 5G Device RF Component Research Report_v4.0
This report has been carried out in two directions respectively, the sub-6GHz RF components and the millimeter wave RF components. It analyses the industrial status, key technologies, design challenges, alternative process and research progress of core 5G RF components, such as power amplifier, filter, low noise amplifier and switch.

GTI 5G Device OTA Test Specification _v2.0
This specification targets enhanced Mobile Broadband (eMBB) scenario for 5G Device products testing, and provides evaluation criteria for UE OTA performance in the 5G test.

GTI 5G Device Power Consumption White Paper_v4.0
This white paper provides the analysis of the factors of power consumption, such as the key components /the 5G feature and the service type/the test solution and the performance requirements of power consumption for 5G device.

GTI Sub-6GHz 5G Device White Paper_v5.0
This white paper is necessary to facilitate the development of 5G chipset/ device and the corresponding test instruments, and targets eMBB scenario for Sub-6GHz 5G commercial products, which is conducted to be the technical references for the development of chipset/ device and basis for the 5G commercial products specs.

GTI 5G Device Function and Performance Test Specification _v4.0
This specification provides evaluation criteria for basic functions and performance in the 5G test. Considering various test requirements, specific test cases and methods are designed, together with the basic requirements for each test category, number of test devices, and tailored agreements.

5G Smart Devices Supporting Network Slicing White Paper_v1.1
This white paper was jointly released by NGMN and GTI. It introduces challenges faced by the characteristics of network slicing in the design and technical implementation of system, and various reference architectures and technical design schemes for network slicing in the devices.

GTI 2.0

Accelerating 5G end-to-end maturity

5G Enterprise Network Solutions

Promote maturity and scale application of 5G enterprise network E2E solution

GTI Security Consideration for 5G Smart City White Paper

This whitepaper focuses on the potential security threats and challenges brought by the application of 5G technologies to Smart City, and the security capabilities required to address these threats.

GTI Wireless Solution for 5G ENS White Paper
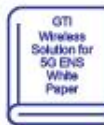
This white paper summarizes differentiated network requirements of industry customers, proposes three types of wireless enterprise network solutions, and analyzes the network architecture, network performance (coverage, performance, reliability, and isolation), application scenarios, and industry conditions.

GTI 5G Network Architecture and Capability Customization for ENS White Paper

This white paper indicates that as 5G technologies mature, an increasing number of vertical industries are becoming aware of the fact that industry–specific private 5G networks will aid their digitalization and industry upgrade, helping the enterprises meet the needs of a faster and more diverse market.

GTI URLLC Evaluation White Paper (Phase II)

This white paper involves more vertical, such as differential protection in electrical power distribution and motion control in factory automation. And more simulation assumptions are adopted, such as FDD, new frequency band (700MHz), new frame structure, etc.

GTI Vertical Models and Enterprise Network Requirements White Paper

This white paper describes the requirements and application scenarios of 5G networks in major industries, summarizes and analyzes common scenarios and requirements, and provides a set of basic capabilities required for 5G networks to meet industry requirements.

GTI Vertical Spectrum Strategy White Paper

This white paper assesses the overall system level performance for coexistence scenarios where a local vertical industry uses, e.g a URLLC factory network has to fulfill the desired latency and reliability requirements while being interfered by the overlaid operator macro network offering wide area coverage in the same frequency band.

GTI Cellular–IoT Universal Module Specification _v2.0.0

This present document proposes mechanical, electrical, software and performance requirements for Cellular–IoT universal module implementations. The assigned allocations are intended to enable the module supplier and host device integrator to design compatible circuits with aligned pad assignments as specified.

GTI White Paper of Value of 5G High Uplink in Industrial Digitalization

This white paper analyzes the requirements of service processes and connections for 5G as well as 5G's value in the first–batch demonstration industries, including port, steel and mining, based on China Mobile's and Huawei's exploration. Suggestions are also provided on how to improve the uplink bandwidth capabilities of current networks.

GTI Research Report on 5G Industry Access Gateway_v1.0.0

This research report puts forward the concept of industry access gateway, discusses the technical specifications of access gateway used in industry and enterprise, and makes suggestions on the application mode and test content of access gateway in typical application scenarios of smart park, smart factory and smart port.

GTI Research Report on 5G Handheld Device for Vertical Industry_v1.0.0

This research report puts forward the industry–oriented concept of 5G handheld terminals, and discusses the technical specifications and industrial applications of corresponding handheld terminals in public security, industrial and enterprise fields.

Scan for more GTI white papers

Event Plan in 2021

GTI Summit
(At MWC Shanghai 2021)
Time: 23rd February
Venue: Shanghai+Live Streaming

GTI Summit
(At MWC Barcelona 2021)
Time: June
Venue: Barcelona, Spain

The 10th Spectrum and Technology Workshop
(At ITU Telecom World 2021)
Time: 12th October
Venue: Hanoi, Vietnam

Feb.   Mar.   Jun.   Jul.   Oct.   Nov.

30th GTI Workshop
Time: Middle March
Venue: Online

31st GTI Workshop
Time: July
Venue: TBD

32nd GTI Workshop
Time: November
Venue: TBD

KEY MOMENTS

2011

Kick-off of GTI by China Mobile, SoftBank, Vodafone and other operators

2012

Release of world's first MMMB smart phone

Release of world's first TDD/FDD Multimode chips

2013

Release of 5-Mode Low Cost Device Solutions

Release of Native RCS Devices

2014

World's first TD-LTE VoLTE phone call was made

2015

2016

Launch of GTI 2.0 by China Mobile, Bharti Airtel, KT, SoftBank and Vodafone to promote 5G development and cross-industry innovation

Release of HPUE on Band 41 to promote Massive MIMO commercialization and improve systematic performance

2018

Release of 5G in China—the Enterprise Story with GSMA

Release of GTI 5G S-Module Industrial Cooperation Plan to promote wide application of 5G devices and expand the scale of application

2019

Debut of 5G 2.6GHz End-to-end Products to accelerate maturity of 2.6GHz industry chain and promote 5G commercial process

2020

Release of Supportive Policies for a Sustainable Mobile Industry in the 5G Era with GSMA to promote sustainable mobile industry

Release of GTI 5G Global Device Initiative to promote maturity of multi-mode, multi-band and multi-form devices

More to come …
Let's make it together

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Welcome to join
GTI 2.0
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