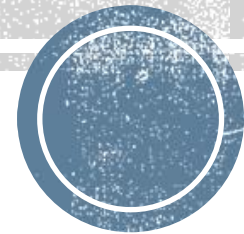


What is disrupting the surveying profession?

COVID-19 and other drivers of change

Daniel Paez - FIG Commission 7 Chair



Daniel Paez – Land Specialist

- Originally from Colombia
- Civil engineer
- PhD Geomatics from Melbourne University
- 20 years of experience
 - Government: Moreland, Department of Transport VIC, Colombian national government
 - Academia: Melbourne University and Los Andes University
 - Private sector: Booz and Co (now PWC), Land Equity International and INECA



FIG Commission 7

- Cadastre
 - Cadastral surveying
 - Land information systems
 - New technologies
 - Laws and regulations
- Land Management
 - Registry
 - land taxes, rates and municipal finances
 - Global challenges such as poverty alleviation and climate crisis



Session 1: Opening Asia-Pacific - Land Administration 2020

19 October 2020 at 22:00 - Universal Time UTC

Completed!
Outstanding participation and discussion



Dr. Keith Bell
Senior Technical
Specialist
World Bank



Dr. Eva-Maria Unger
UN-GGIM
Kadaster
International



Mr. Kees de Zeeuw
UN-GGIM
Kadaster International



Prof. Michael Barry
University of Calgary



Dr. Kate Rickersey
Land Equity International



Session 2: Blended learning: lessons from our responses to COVID:19 - in cooperation with FIG Commission 7 Education

20 October 2020 at 06:00 Universal Time UTC

Completed!
Outstanding participation and discussion



Chethna Ben
University of South Pacific



David Mitchell
Chair Commission 2
RMIT University



Dimo Todorovski
University of Twente

Kelly Lickley
RICS



Session 3: Opening (Europe) and Consultation of the GLTN Urban-rural land linkage framework

20 October 2020 at 08:00 Universal Time UTC

This session



Dr. Prof. Rudolf Staiger
President FIG



Mr. Daniel Paez
Chair FIG
Commission 7



Mr. Danilo Antonio
GLTN
Program Management
Officer



Dr.-Ing. Uchendu Eugene Chigbu
Researcher
Doctoral Program Coordinator
Technical University of Munich



French

Session 4: Ouverture - Opportunités et défis de l'interrelation urbaine et rurale

20 October 2020 at 15:00 Universal Time UTC



Daniel Roberge
International Consultant



Claire Galpin
Senior Land Administration Specialist
The World Bank



Rafic Khouri
Association of Surveyors Arab States



Jean-Philippe Lestang
IGNFI



Spanish

Session 5: Apertura - Oportunidades y retos de la interrelación urbana y rural

20 October 2020 at 22:00 - Universal Time UTC



Ivonne Moreno
The World Bank



Juan Daniel Oviedo
Director DANE
Colombia



Mike Mora
Organization of
American States



Malcolm Childress
Global Land Alliance



Stephane Palicot
International Expert
IGNFI



Chinese

Session 6: 城乡联系

21 October 2020 at 06:00 Universal Time UTC



Prof. Dong Jiang



Prof. Changgen Zhan
Wuhan University



Prof. Liang Huang
Chinese Land Survey and Planning Institute



Senior engineer Huanle He
Chinese Land Survey and Planning Institute
UngYong (Barry) Park
Korea LX



Session 7: Building Community resilience in the land administration sector

21 October 2020 at 08:00 Universal Time UTC

Keynote speaker
UN-Habitat



Rafael Tuts, Director
Global Solutions
Division Nairobi, Kenya
United Nations
Gigiri Campus



Dr. Kim Taikjin
Executive Officer
Korean LX



James Kavanagh
RICS



Gerda Schennach
BEV



Vladimir Evtimov
Land Tenure Officer
FAO



Chryssy Potsiou
Professor
FIG President
2014-2018



Session 8: Land PPPs and the role of the private sector during the recovery (with WPLA)

21 October 2020 at 11:30 Universal Time UTC

Countries and private sector



Peter Creuzer
Director, LGLN



Mr. Della R. Abdullah
Expert Staff
Minister of Land
Affairs and Spatial
Planning on
Information
Technology



Mr. Daniel Paez
Chair FIG Commission 7



Online Annual Meeting



Session 9: Land Administration and the SDGs

21 October 2020 at 11:00 Universal Time UTC

Multi-region meeting



Prof. Christiaan Lemmen
ISO and OGC



Eftychia Kalogianni
ISO and OGC



Frank Pichel
Cadasta



Amy Coughenour
Cadasta



Paula Dijkstra
FIG Working Group
on FFPLA
Kadaster



Simon Ulvund
Meridia



Session 10: Cadastral Modernization - 3D, Twins, and Automation

21 October 2020 at 22:00 Universal Time UTC

Edge of technology



Prof. Peter van Oosterom
TU-Delft



Dr. Mila Koeva
University of Twente



Mr. Brent Jones
esri



Prof. Abbas Rajabifard
The University of Melbourne



Session 11: Countries and Working Groups reports (Commission 7 delegates only)

22 October 2020 at 08:00 Universal Time
UTC

- Australia - Ian Harper
- Russian Federation - Maria Kislova
- Netherlands - Theo Splithof
- Indonesia - Dony Erwan Brillianto
- Croatia - Miodrag Roić
- Japan - Masaru Kaidzu
- Turkey - Orhan Ercan
- Portugal - Virgínia Manta



Long-term trends



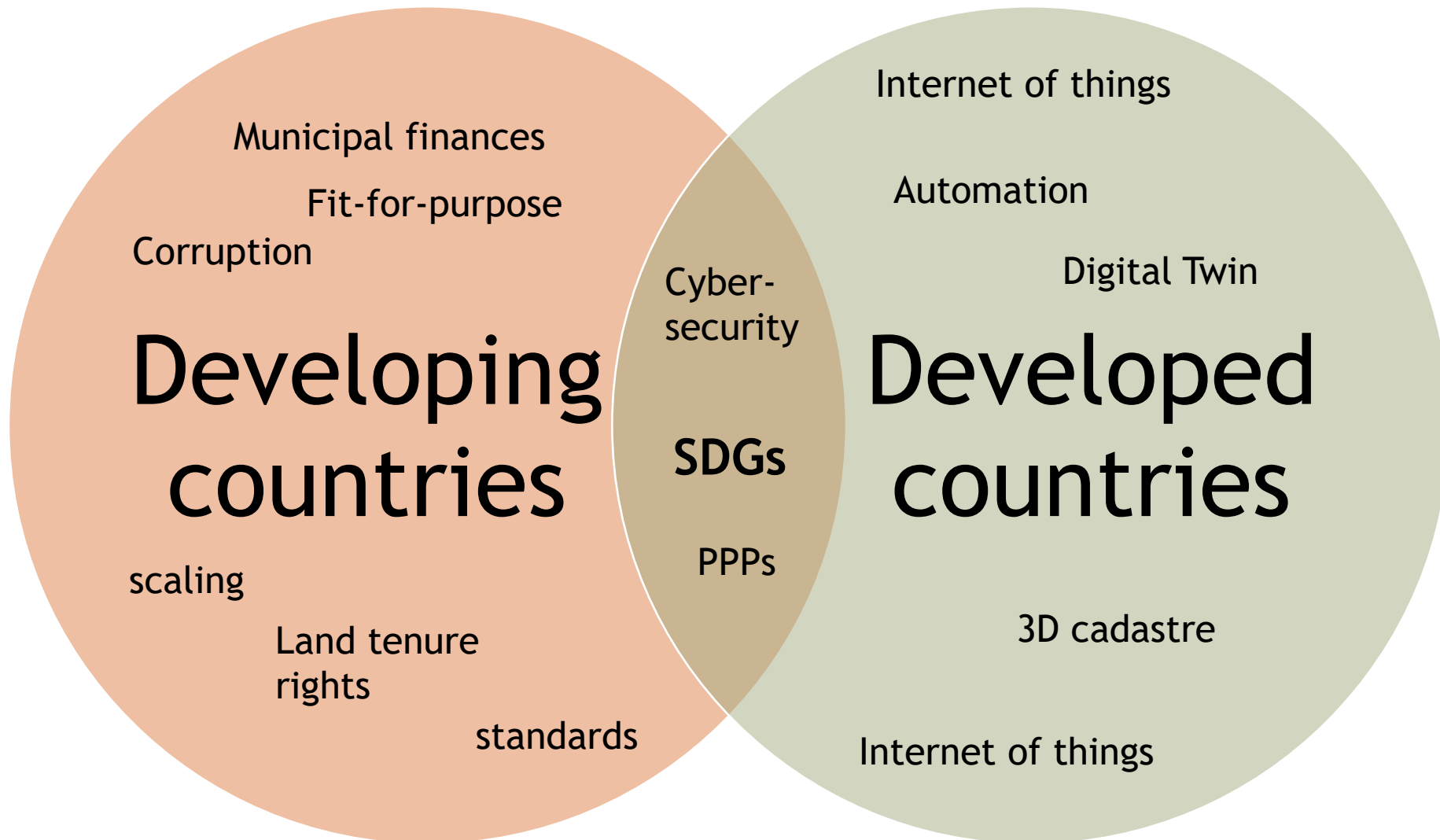


SDGs give us a very good indication where challenges are





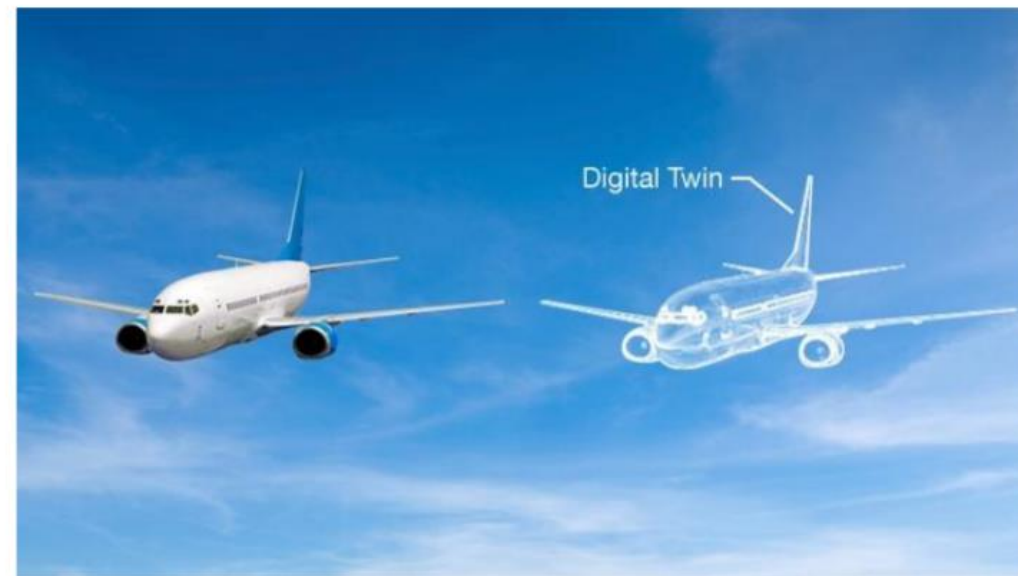
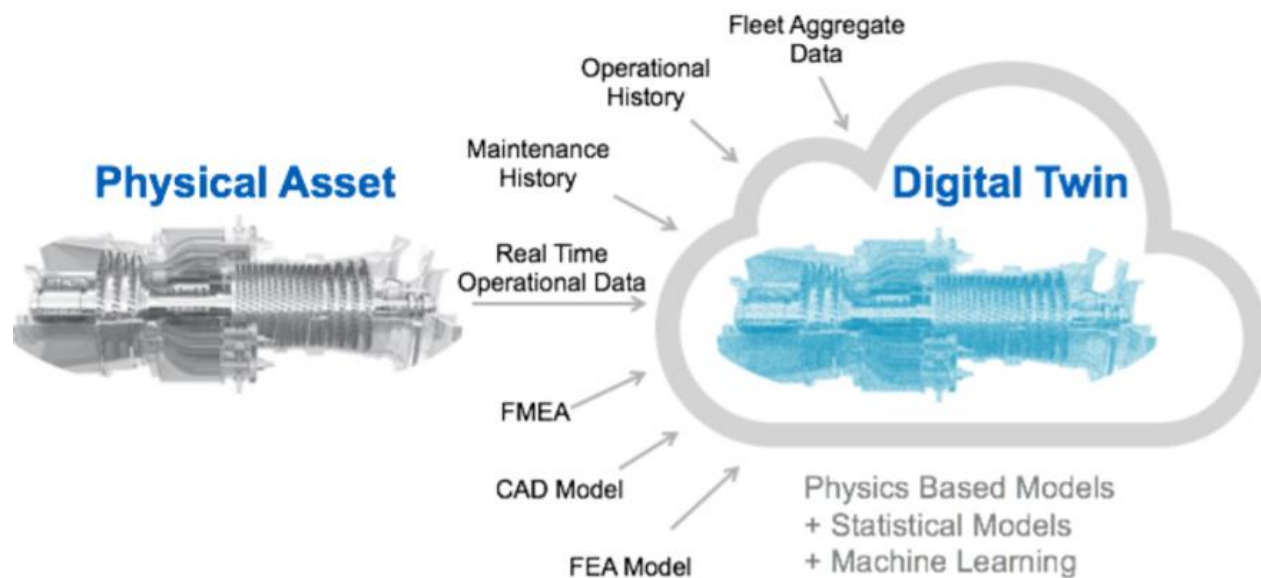
The fourth revolution is changing geospatial business for everyone



Global venture capital investments in AI themes grow at a clip to reach >\$27B/year

▶ Almost 80% more capital invested in FY18 vs FY17 with North America leading the way at 55% market share.





Source: LX (Korea)

Digital twin

A digital twin is a virtual representation of a physical object or system across its lifecycle, using real-time data to enable understanding, learning and decision-making





Digital-twin are new to land administration but not in other areas

Transport (Air, automotive, trains, etc)

Health (hospitals, emergency response, etc)

Utilities (water, power, TICs)

Construction (BIM, contract administration, etc)

Source: Siemens



LX 한국국토정보공사

Digital Twin
Hologram Control System



Urban Vs rural
Smart city Vs digital economy



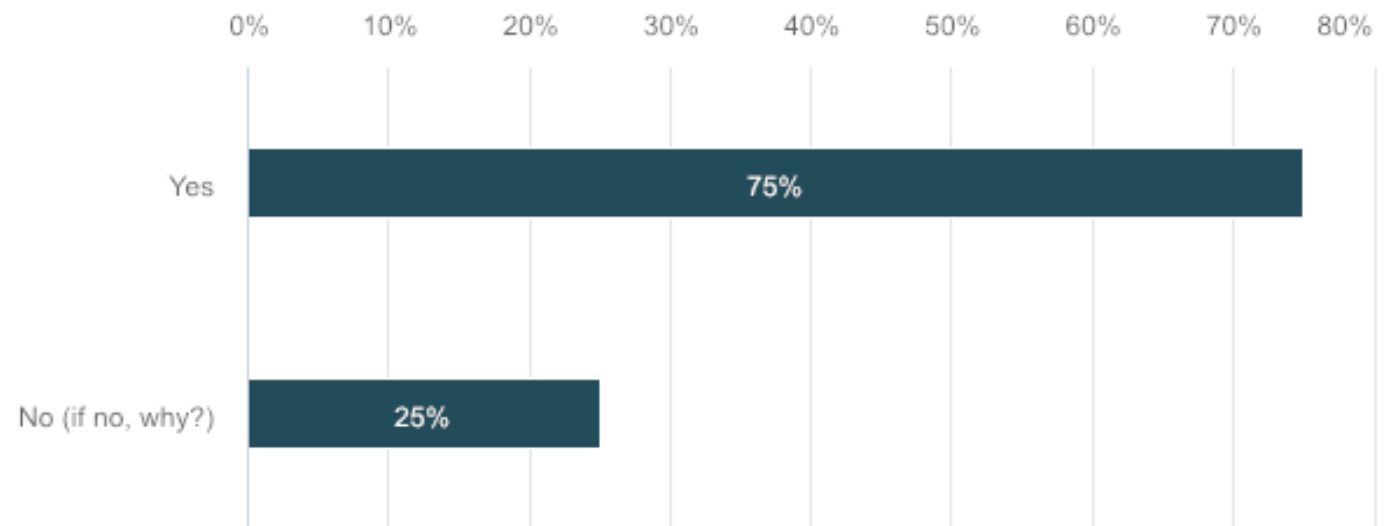
The private sector is here and everywhere as a new driver



FIG Commission 7 is working with WPLA (UNECE) on developing principles for land PPPs

3. Are public-private partnerships (PPPs) used in your country's land administration?

	n	Percent
Yes	18	75%
No (if no, why?)	6	25%



Consider attend our session with WPLA:

October 21
11.30-13.30 UTC

Session 8: Land PPPs and the role of the private sector during the recovery (with WPLA)



COVID-19 State of the Geospatial industry

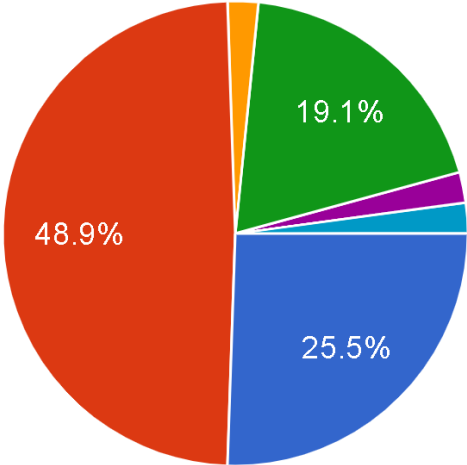
FIG Commission 7 Survey



<https://forms.gle/2eYTGZtZz8jXWbT7>

In which sector of the economy are you?

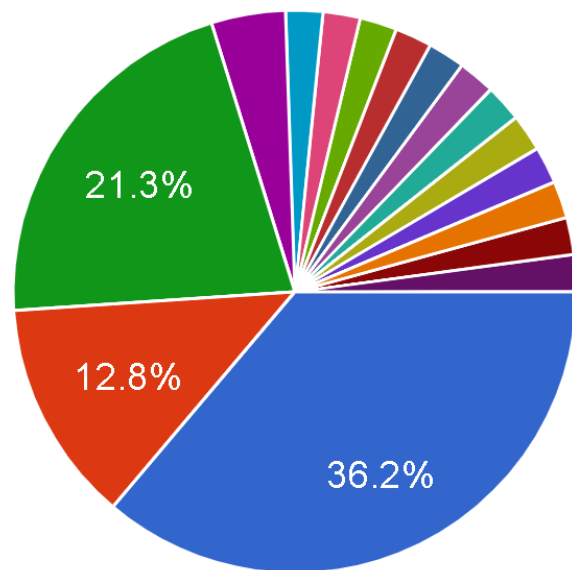
47 responses



- Academia
- Private
- Non-for-profit
- Government - Public
- International development finance
- Workers rights

Who has participated?





- Cadastral surveying (land tenure - bou...
- Construction and engineering surveying
- Mining, oil and gas and resource man...
- Geospatial analysis - GIS platforms de...
- Sale of geospatial equipment, softwar...
- International development - aid and e...
- Geospatial data management
- I work in multiple areas - bullets 1, 2, 6

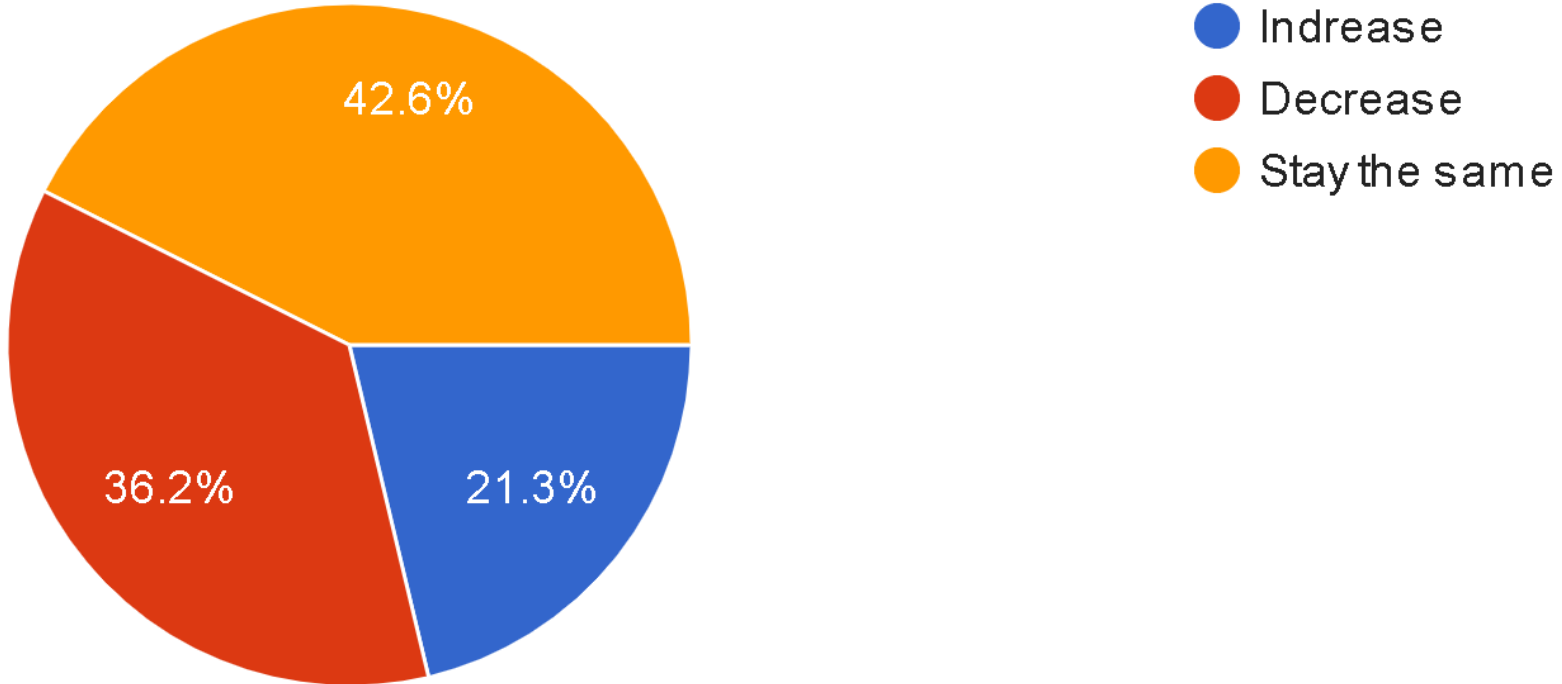
▲ 1/3 ▼

Where they work?

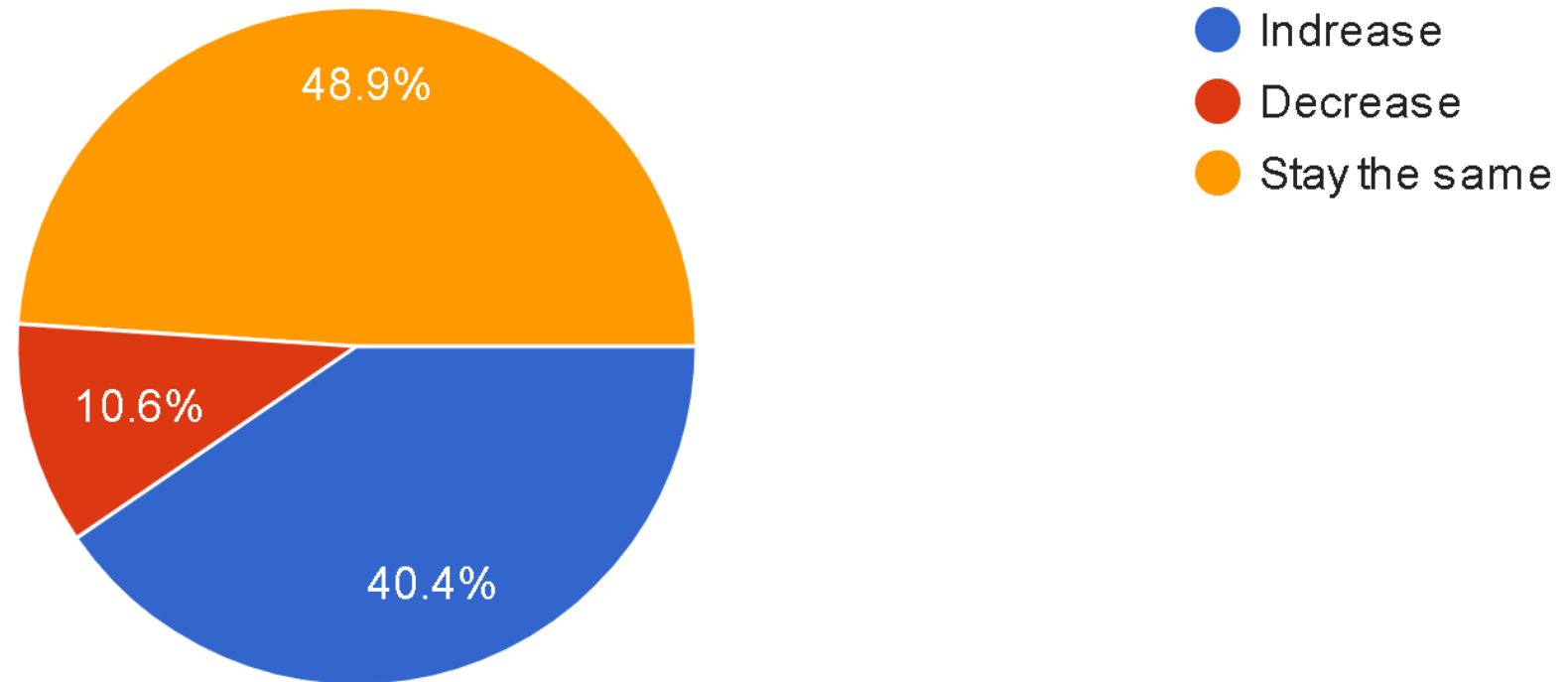


Since the start of the pandemic (e.g. Feb-March 2020), your professional activity

47 responses

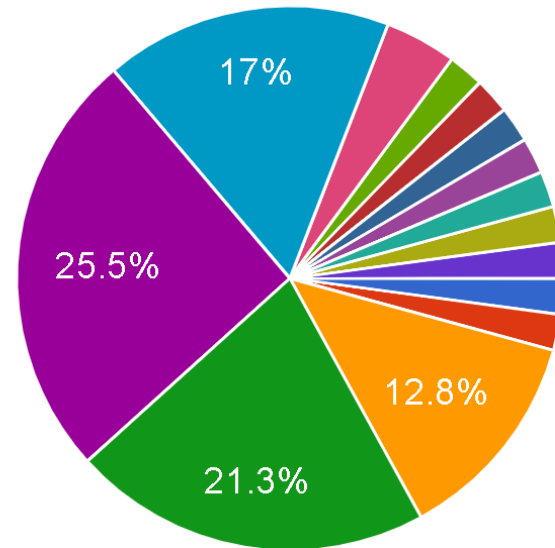


What is your perspective for the next three months in terms of professional activity?
47 responses



When are you expecting activity to return to same levels prior to the pandemic (e.g. 2019)?

47 responses



- In the next 3 months (e.g. December 2020)
- In the next 6 months (April - May 2021)
- in a year (e.g. October 2021)
- In two years or more
- in a year (e.g. July 2021)
- In the next 6 months (January - February 2021)
- In the next 3 months (e.g. October 2020)
- There has been increased activity and...

Main challenges during COVID-19?

- Field work
- Borders
- Low decision-making processes
- Investment decline (economic recession)
- Virtual communication is difficult



Main opportunities during COVID-19?

- Spatial data very public in preparedness and response of the pandemic
- Modernization of systems
- Home office and new use of office space
- Many geospatial datasets were updated
- Maps are getting a lot of visibility
- Modernization of systems





Most practitioners will need to review their strategy during and post COVID-19

<https://www.geoconnexion.com/publication-articles/survival-of-the-fittest>

Figure 1. Porter's Five Forces for surveyors

