



INTERNATIONAL SPACE STATION:
BENEFITS FOR HUMANITY

SPACE
— IS OUR —
BUSINESS



1
00:00:07,990 --> 00:00:05,269
the international space station is the

2
00:00:09,830 --> 00:00:08,000
most unique laboratory that exists there

3
00:00:12,150 --> 00:00:09,840
are things that you can learn things

4
00:00:14,310 --> 00:00:12,160
that you can do in space that you just

5
00:00:16,790 --> 00:00:14,320
can't do on the earth space station

6
00:00:19,670 --> 00:00:16,800
really provides an opportunity to

7
00:00:21,830 --> 00:00:19,680
explore for example say medical

8
00:00:23,590 --> 00:00:21,840
applications the aging and the

9
00:00:26,230 --> 00:00:23,600
osteoporosis and muscle wasting

10
00:00:28,230 --> 00:00:26,240
conditions are greatly accelerated in

11
00:00:30,390 --> 00:00:28,240
microgravity understanding those

12
00:00:32,470 --> 00:00:30,400
phenomena allow us to

13
00:00:34,709 --> 00:00:32,480

look at how we can improve treatment of

14

00:00:37,270 --> 00:00:34,719

disease here on earth what we have is

15

00:00:39,910 --> 00:00:37,280

the capability to affect people's

16

00:00:41,350 --> 00:00:39,920

quality of life it's not just drug

17

00:00:43,910 --> 00:00:41,360

companies that can benefit from

18

00:00:46,470 --> 00:00:43,920

experiments or research in space that's

19

00:00:48,630 --> 00:00:46,480

a host of industries across the board

20

00:00:51,510 --> 00:00:48,640

but it wasn't always easy to get there

21

00:00:53,590 --> 00:00:51,520

historically access to space was limited

22

00:00:55,830 --> 00:00:53,600

to companies and corporations which were

23

00:00:58,470 --> 00:00:55,840

selected by the government and what we

24

00:01:00,310 --> 00:00:58,480

lost was the true creativity of so many

25

00:01:02,470 --> 00:01:00,320

innovative smaller companies that really

26

00:01:05,030 --> 00:01:02,480

didn't understand how to get to space

27

00:01:06,390 --> 00:01:05,040

when we were doing the reauthorization

28

00:01:09,429 --> 00:01:06,400

of nasa

29

00:01:12,469 --> 00:01:09,439

we wanted to expand the opportunities to

30

00:01:14,390 --> 00:01:12,479

different areas of experimentation and

31

00:01:16,230 --> 00:01:14,400

also different entities recognizing the

32

00:01:19,109 --> 00:01:16,240

untapped potential for commercial access

33

00:01:20,710 --> 00:01:19,119

to space in 2005 congress declared the

34

00:01:22,789 --> 00:01:20,720

u.s portion of the international space

35

00:01:25,510 --> 00:01:22,799

station a national laboratory

36

00:01:27,749 --> 00:01:25,520

essentially it opened up opportunities

37

00:01:29,670 --> 00:01:27,759

for research that could be done on the

38

00:01:32,230 --> 00:01:29,680

space station that would benefit us here

39
00:01:34,230 --> 00:01:32,240
on earth everyday companies and everyday

40
00:01:36,310 --> 00:01:34,240
researchers and everyday people can

41
00:01:38,069 --> 00:01:36,320
think about using the space station

42
00:01:40,550 --> 00:01:38,079
that's that's a fundamental change it

43
00:01:42,389 --> 00:01:40,560
was never allowed before today we offer

44
00:01:44,469 --> 00:01:42,399
opportunities to the researcher that

45
00:01:46,389 --> 00:01:44,479
never existed before whether it be seed

46
00:01:49,270 --> 00:01:46,399
funding to help support the actual

47
00:01:52,149 --> 00:01:49,280
project to access to experts to create

48
00:01:53,990 --> 00:01:52,159
hardware that rocket ride up the on

49
00:01:55,830 --> 00:01:54,000
station time with the astronaut as your

50
00:01:58,630 --> 00:01:55,840
lab technician what we're doing is

51
00:02:01,190 --> 00:01:58,640
really making it as easy as possible for

52
00:02:04,069 --> 00:02:01,200
people here on earth to do space-based

53
00:02:06,709 --> 00:02:04,079
research without becoming space experts

54
00:02:09,510 --> 00:02:06,719
our part of the mission is to help guide

55
00:02:11,670 --> 00:02:09,520
these non-traditional innovative users

56
00:02:12,630 --> 00:02:11,680
from their traditional labs here on the

57
00:02:15,589 --> 00:02:12,640
ground

58
00:02:17,670 --> 00:02:15,599
to a very unusual and

59
00:02:19,750 --> 00:02:17,680
important asset in space the iss

60
00:02:21,830 --> 00:02:19,760
national lab has space versions of

61
00:02:23,510 --> 00:02:21,840
hardware that you can often find in

62
00:02:25,270 --> 00:02:23,520
laboratories here on the ground

63
00:02:27,350 --> 00:02:25,280

everything from even animal habitats

64

00:02:29,830 --> 00:02:27,360

plant growth chambers freezers 3d

65

00:02:32,470 --> 00:02:29,840

printers observation windows incubators

66

00:02:34,309 --> 00:02:32,480

furnaces to centrifuges microscopes the

67

00:02:35,910 --> 00:02:34,319

list goes on and on

68

00:02:38,390 --> 00:02:35,920

so we're working with companies that you

69

00:02:40,229 --> 00:02:38,400

would never imagine and they would never

70

00:02:41,910 --> 00:02:40,239

have imagined using the international

71

00:02:43,750 --> 00:02:41,920

space station and they're seeing great

72

00:02:46,869 --> 00:02:43,760

results from that the international

73

00:02:49,190 --> 00:02:46,879

space station offers researchers like me

74

00:02:51,670 --> 00:02:49,200

an opportunity to find the key variables

75

00:02:54,229 --> 00:02:51,680

it's helping us to pinpoint

76
00:02:55,910 --> 00:02:54,239
therapeutic molecules the space station

77
00:02:58,229 --> 00:02:55,920
really provides us a unique opportunity

78
00:02:59,830 --> 00:02:58,239
unique environment to do some basic and

79
00:03:02,229 --> 00:02:59,840
fundamental research that allows us to

80
00:03:04,630 --> 00:03:02,239
develop products better the iss allows

81
00:03:06,309 --> 00:03:04,640
us to do a series of experiments in

82
00:03:08,070 --> 00:03:06,319
weightlessness that will have profound

83
00:03:11,350 --> 00:03:08,080
impacts for life on earth

84
00:03:14,550 --> 00:03:11,360
having a u.s national lab in space has

85
00:03:16,790 --> 00:03:14,560
allowed for the formation of a wide

86
00:03:20,390 --> 00:03:16,800
range of companies it's creating a new

87
00:03:23,190 --> 00:03:20,400
economy a sustainable marketplace that

88
00:03:24,550 --> 00:03:23,200

has services commercial products

89

00:03:26,390 --> 00:03:24,560

competition