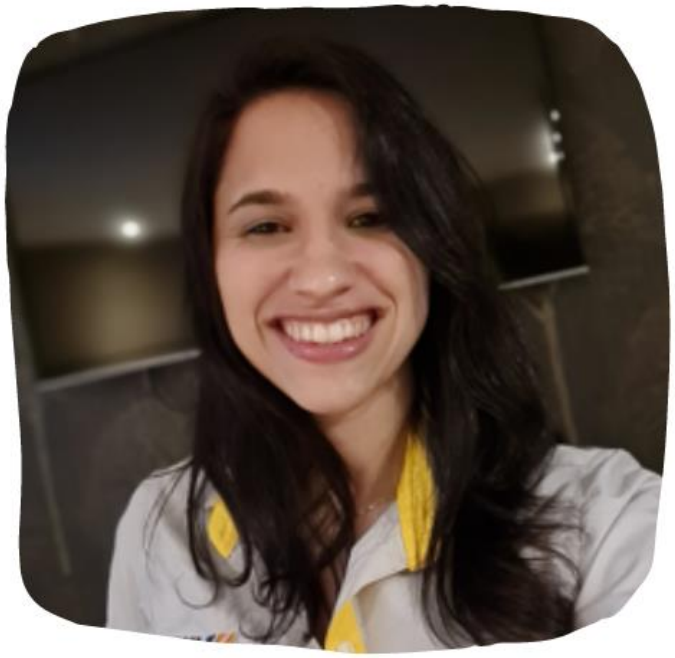
Preparing the IT workforce for the unknown future

_Who we are?

Yve Marcial



Pedagogue, with an emphasis on Corporate Education, Specialist in Distance Education, with an MBA in Project Management and Business Management.

Head of Academic Area of Superior School of Networks, Training Service Unit of Brazilian NREN, RNP.

Lifelong Learning enthusiast, through the Educational Consulting service, where designs corporate education projects aimed at leveraging the results of organizations with sustainability in the long term.

Leandro Guimarães

Graduated in Computer Networks, with more than twenty-five years in the Information Technology area, focusing on projects and planning. With an MBA in Project Management and another in Information Security, certified as PMP by PMI, Cobit Foundation by ISACA and certifications ITIL and Cloud Computer Foundation by EXIN. Deputy director at Superior School of Networks, RNP's training service unit. Responsible for the strategic management of the ESR, observing the training and development opportunities and demands of RNP's client institutions.

RNP

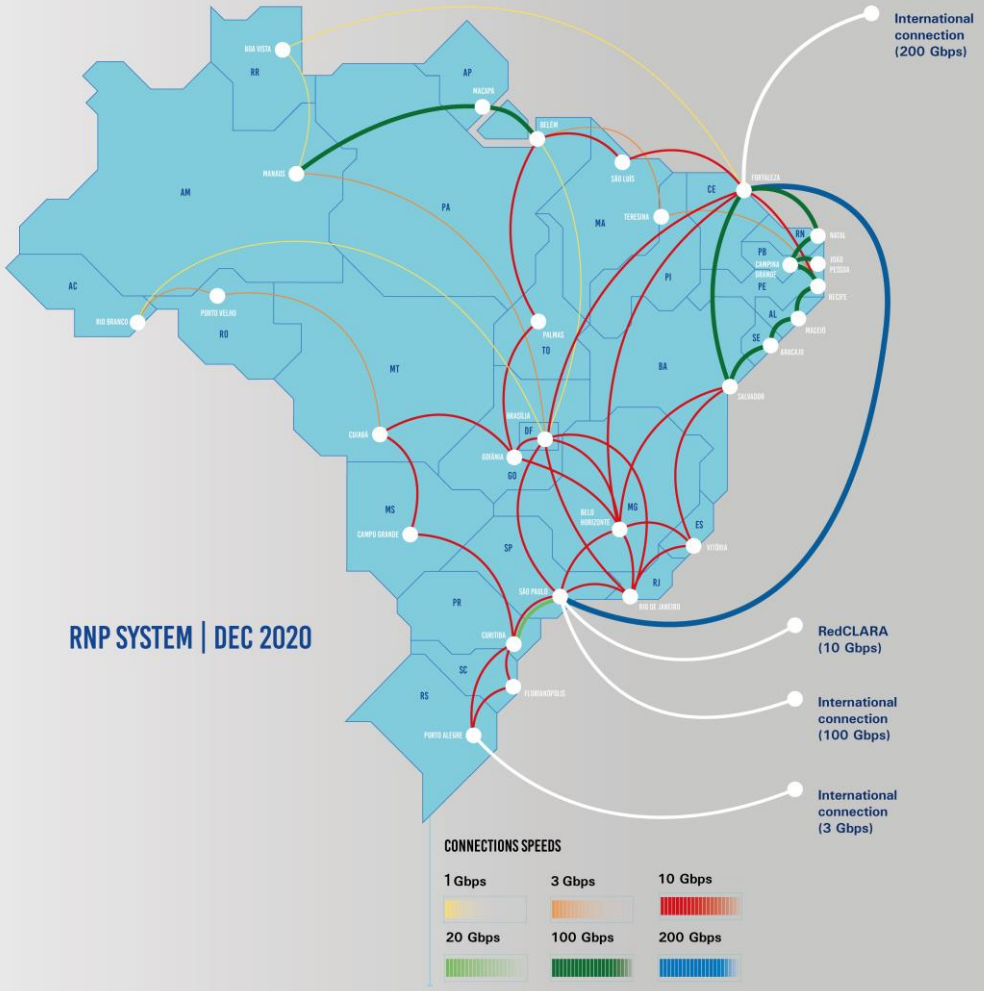
Origin and Essence

We are the Brazilian National research and education network. In 1992, we helped bring the internet to Brazil and we continue promoting the innovative use of Information and Communication Technologies, driving science and education for all.

http:// rnp.br

RNP

44 Education and Research Community Networks



782 Gb/s
aggregate capacity

149 Gb/s
international capacity

ESCOLA SUPERIOR DE REDES

RNP

https://brazilian.report/

ESCOLA SUPERIOR DE REDES

RNP

In numbers

Connecting 800 institutions with 1.500 campuses

eduroam

One of the largest eduroam network in the world with more than 3.000 hotspots

180.000 researchers

4 millions of teachers and students

Collaborative Networks

140 telehealth units operating
87 health specialties

more than 2.700 users
50 Special Interest Groups

300 hospitals
600 sessions in 2021

RUTE
REDE UNIVERSITÁRIA DE TELEMEDICINA

3.881 post-graduation programs

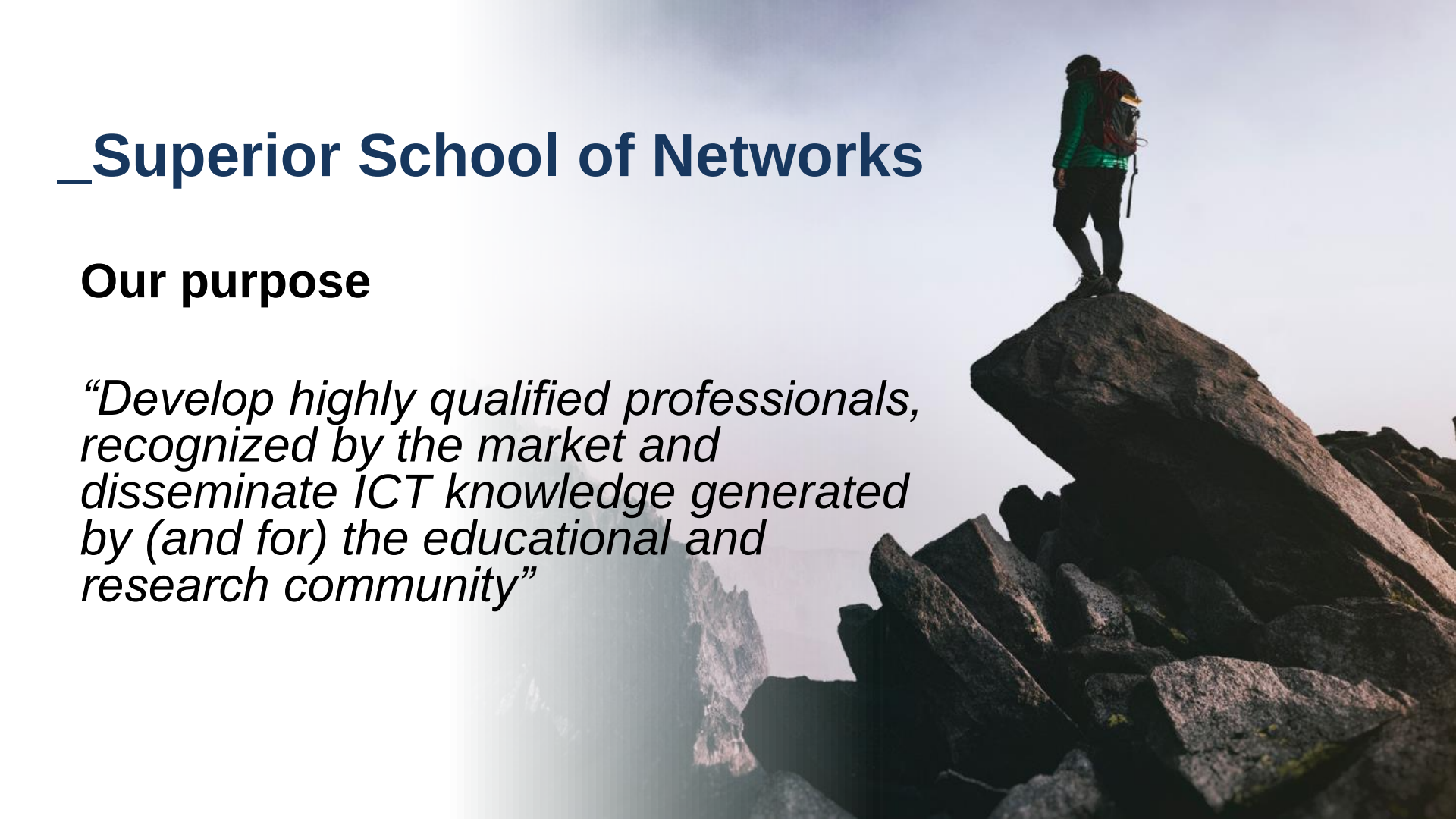
ESCOLA SUPERIOR DE REDES

_Superior School of networks

_Superior School of Networks

Our purpose

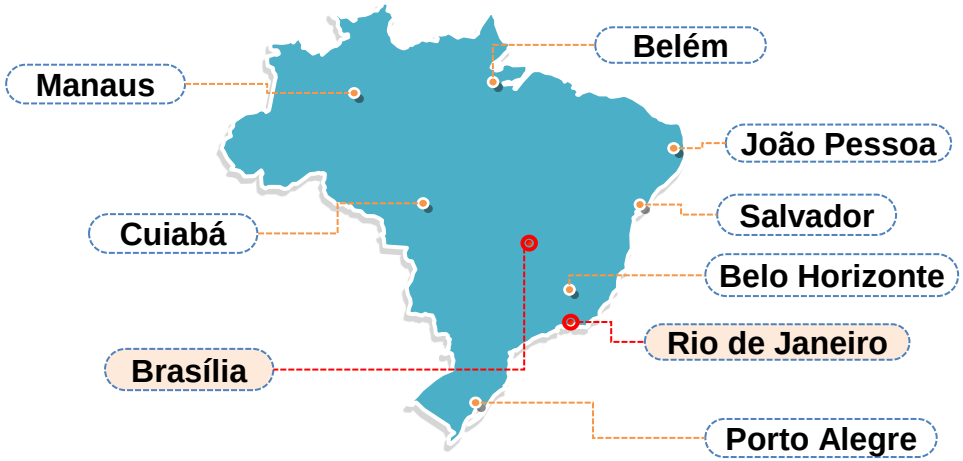
“Develop highly qualified professionals, recognized by the market and disseminate ICT knowledge generated by (and for) the educational and research community”



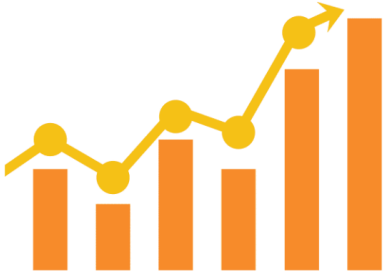
Superior School of Networks

Launch in 2005

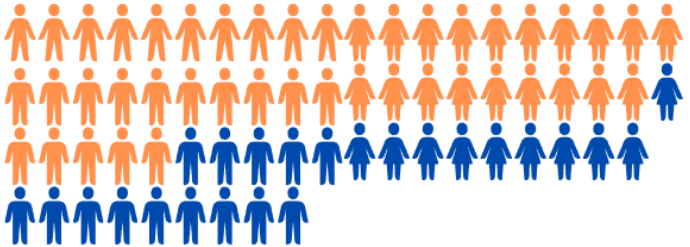
ESR branch offices



Aproximadely 60 courses



more than 36K students



http:// esr.rnp.br/

ESCOLA SUPERIOR DE REDES

ESR Portfolio

Approximately 60 courses

_ESR 3.0

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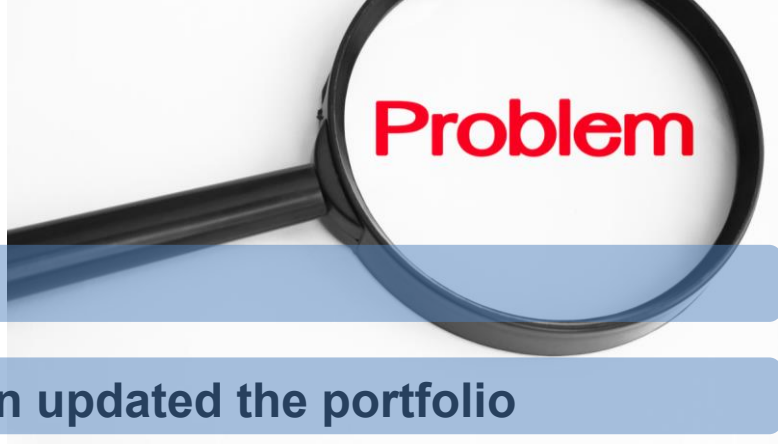
2017 - 2018

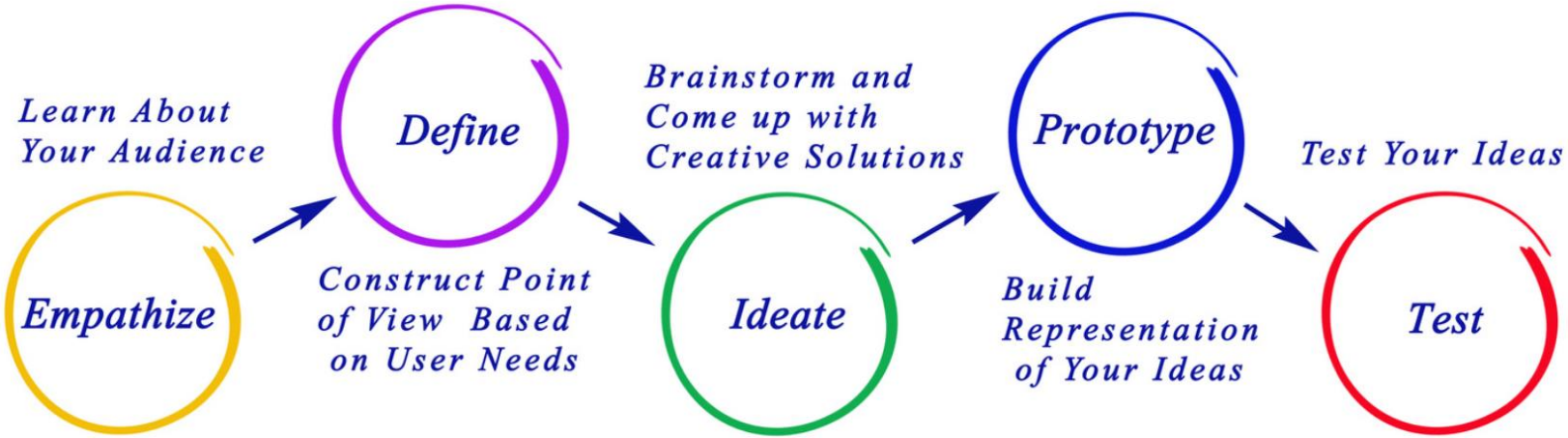
Problems identified in the ESR strategy:



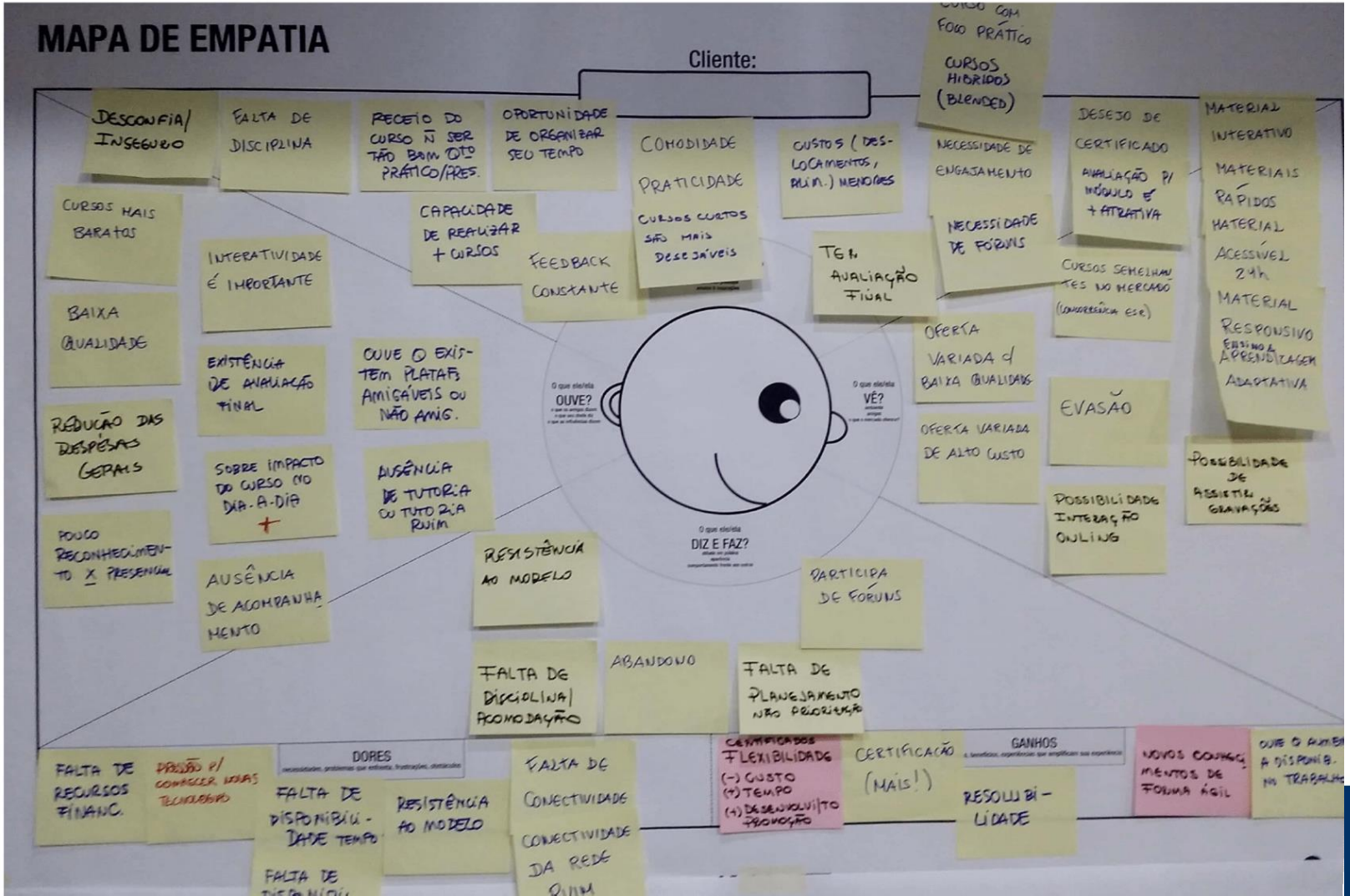
- Difficulty of scale
- High costs to develop and maintain updated the portfolio
- Little coverage in the national territory (travel cost)
- Low availability to enrol a full-week courses
- Hardness to find professionals to work on the portfolio

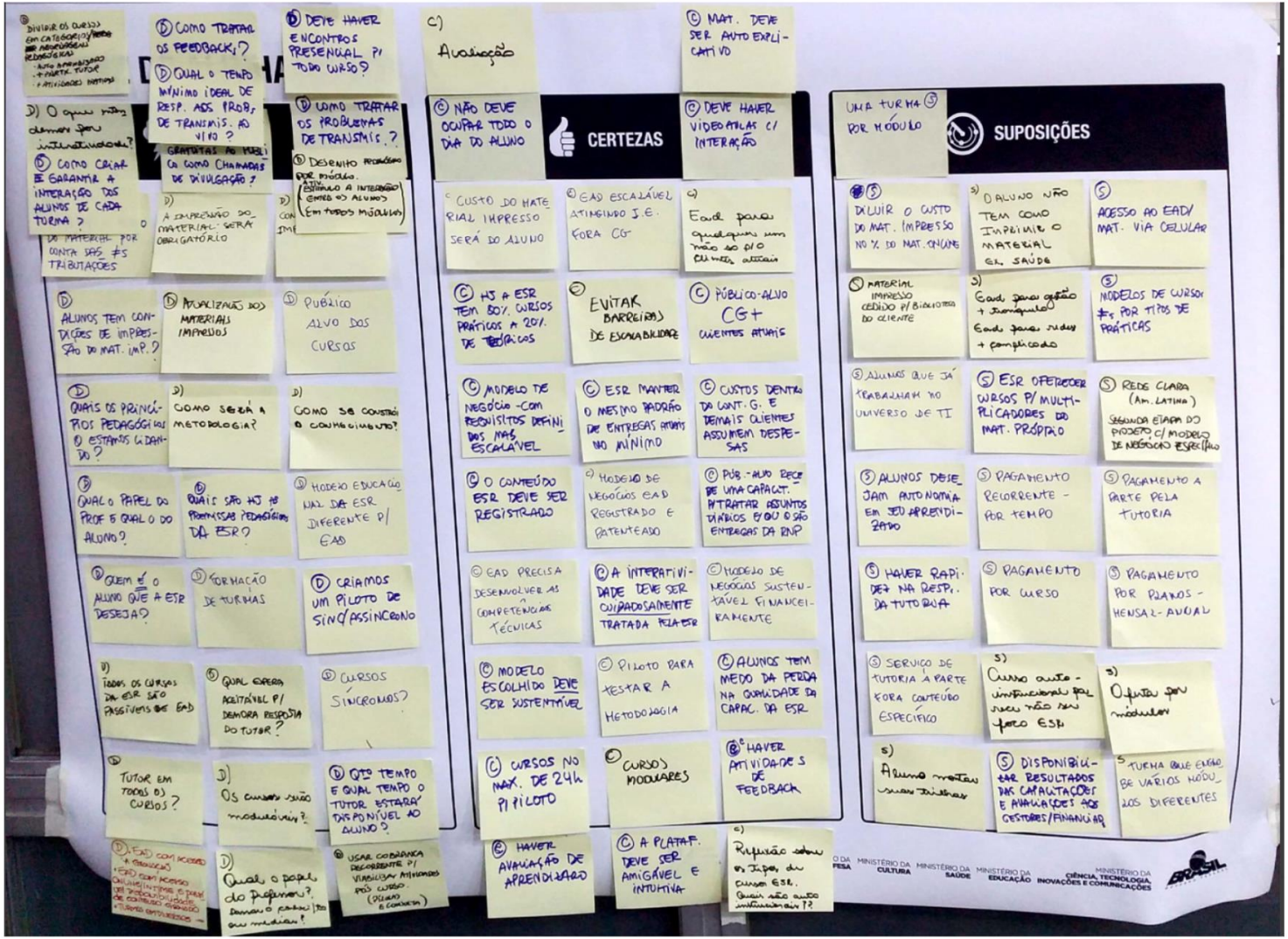
SOLUTION

Design Thinking Process



DESIGN THINKING


MAPA DE EMPATIA
Cliente:
DESCONFIA/ INSEGURO
FALTA DE DISCIPLINA
RECEIO DO CURSO N SER TÃO BOM DTO PRÁTICO/PRES.
OPORTUNIDADE DE ORGANIZAR SEU TEMPO
COMODIDADE
PRATICIDADE
CURSOS CURTOS SÃO MAIS DESEJÁVEIS
CUSTOS (DESLOCAMENTOS, ALIM.) MENORES
NECESSIDADE DE ENGAJAMENTO
CURSOS COM FOCO PRÁTICO
CURSOS HIBRIDOS (BLENDED)
DESEJO DE CERTIFICADO
AVALIAÇÃO P/ MÓDULO É + ATRATIVA
MATERIAL INTERATIVO
MATERIAIS RÁPIDOS
MATERIAL ACESSÍVEL 24h
MATERIAL RESPONSIVO
CURSOS MAIS BARATOS
INTERATIVIDADE É IMPORTANTE
CAPACIDADE DE REALIZAR + CURSOS
FEEDBACK CONSTANTE
TEM AVALIAÇÃO FINAL
NECESSIDADE DE FÓRUNS
CURSOS SEMELHANTES NO MERCADO (CONCORRÊNCIA ESE)
BAIXA QUALIDADE
EXISTÊNCIA DE AVALIAÇÃO FINAL
OUVE O EXISTEM PLATAFORMAS AMIGÁVEIS OU NÃO AMIG.
OFERTA VARIADA C/ BAIXA QUALIDADE
EVASÃO
REDUÇÃO DAS DESPESAS GERAIS
SOBRE IMPACTO DO CURSO NO DIA-A-DIA
AUSÊNCIA DE TUTORIA OU TUTORIA RUIM
OFERTA VARIADA DE ALTO CUSTO
POSSIBILIDADE DE ASSISTIR GRAVAÇÕES
POUCO RECONHECIMENTO X PRESENCIAL
AUSÊNCIA DE ACOMPANHAMENTO
RESISTÊNCIA AO MODELO
PARTICIPAÇÃO DE FÓRUNS
POSSIBILIDADE INTERAÇÃO ONLINE
FALTA DE DISCIPLINA/ ACOMODAÇÃO
ABANDONO
FALTA DE PLANEJAMENTO NOS PRIORIDADES
O que ele/ela OUVE?
O que ele/ela VÊ?
O que ele/ela DIZ E FAZ?
DORES
GANHOS
FALTA DE RECURSOS FINANC.
PRESSÃO P/ CONHECER NOVAS TECNOLOGIAS
FALTA DE DISPONIBILIDADE TEMPO
RESISTÊNCIA AO MODELO
FALTA DE CONECTIVIDADE
CONECTIVIDADE DA REDE RUIM
CERTIFICADOS FLEXIBILIDADE
(-) CUSTO
(+) TEMPO
(+) DESENVOLVIMENTO PROMOÇÃO
CERTIFICAÇÃO (MAIS!)
RESOLUBILIDADE
NOVOS CONHECIMENTOS DE FORMA ÁGIL


CERTEZAS
SUPOSIÇÕES
Avaliação
Como tratar os feedback?
Qual o tempo mínimo ideal de resp. aos prob. de transmis. ao vivo?
Deve haver encontros presencial p/ todo curso?
Como tratar os problemas de transmis.?
Como criar e garantir a interação dos alunos de cada turma?
Desenho pedagógico por módulo.
A impressão do material será obrigatório
Alunos tem condições de impressão do mat. imp.?
Atualização dos materiais impressos
Público alvo dos cursos
Quais os princípios pedagógicos do estúdio?
Como será a metodologia?
Como se constrói o conhecimento?
Qual o papel do prof e qual o do aluno?
Quais são as promissas pedagógicas da ESR?
Modelo educacional da ESR diferente p/ EAD
Quem é o aluno que a ESR deseja?
Formação de turmas
Criamos um piloto de sinc/assincrono
Todos os cursos da ESR são passíveis de EAD
Qual espera aceitável p/ demora resposta do tutor?
Cursos síncronos?
Tutor em todos os cursos?
Os cursos são modulares?
Qto tempo e qual tempo o tutor estará disponível ao aluno?
Usar cobrança decrescente p/ viabilizar atividades pós curso.
Qual o papel do professor?
Custo do material impresso será do aluno
EAD escalável atingindo j.e. fora CG
EAD para quem não vai pro curso atual
Hj a ESR tem 80% cursos práticos e 20% teóricos
Evitar barreiras de escalabilidade
Público-alvo CG+ clientes atuais
Modelo de negócio -com requisitos definidos mas escalável
ESR manter o mesmo padrão de entregas atuais no mínimo
Custos dentro da cont. g. e demais clientes assumem despesas
O conteúdo ESR deve ser registrado
Modelo de negócios EAD registrado e patenteado
Pós-aluno recebe uma capacit. p/ tratar assuntos diários e/ou o são entregas da RNP
EAD precisa desenvolver as competências técnicas
A interatividade deve ser cuidadosamente tratada pela ESR
Modelo de negócios sustentável financeiramente
Modelo escolhido deve ser sustentável
Piloto para testar a metodologia
Alunos tem medo da perda na qualidade da capac. da ESR
Cursos no max. de 24h p/ piloto
Cursos modulares
Haver atividades de feedback
Haver avaliação de aprendizado
A plataf. deve ser amigável e intuitiva
Reflexão sobre os tipos de cursos ESR. Quais não auto instrucionais?
Mat. deve ser auto explicativo
Deve haver videoaulas c/ interação
Uma turma por módulo
Diluir o custo do mat. impresso no % do mat. online
O aluno não tem como imprimir o material ex. saúde
Acesso ao EAD/ mat. via celular
Material impresso cedido p/ biblioteca do cliente
Cont. para gestão + sofisticado
EAD para redes + complicado
Modelos de cursos p/ tipos de práticas
Alunos que já trabalham no universo de TI
ESR oferecer cursos p/ multiplicadores do mat. próprio
Rede Clara (Am. Latina)
Segunda etapa do projeto c/ modelo de negócio específico
Alunos desejam autonomia em seu aprendizado
Pagamento recorrente - por tempo
Pagamento a parte pela tutoria
Haver rapidez na resp. da tutoria
Pagamento por curso
Pagamento por planos - mensal - anual
Serviço de tutoria à parte fora conteúdo específico
Curso auto-instrucional pq não vai ter ESR
Optativo por módulos
Aluno motivado
Disponibilizar resultados das capacitações e avaliações aos gestores/financiar
Turma que exige vários módulos diferentes

2019

Pillars of the new strategy

Partnerships

Distance Learning

Educational consultancy

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ESCOLA SUPERIOR DE REDES

Partnerships

elogroup

EXIN

CompTIA AUTHORIZED PARTNER PLATINUM

SFIA Skills Framework for the Information Age

SANS

RUCKUS an ARRIS company

REVVO

ASCEND EDUCATION

DC DINSMORECOMPASS

Loading...

TENCHI down-to-earth cloud security

verity

Workalove Edtech

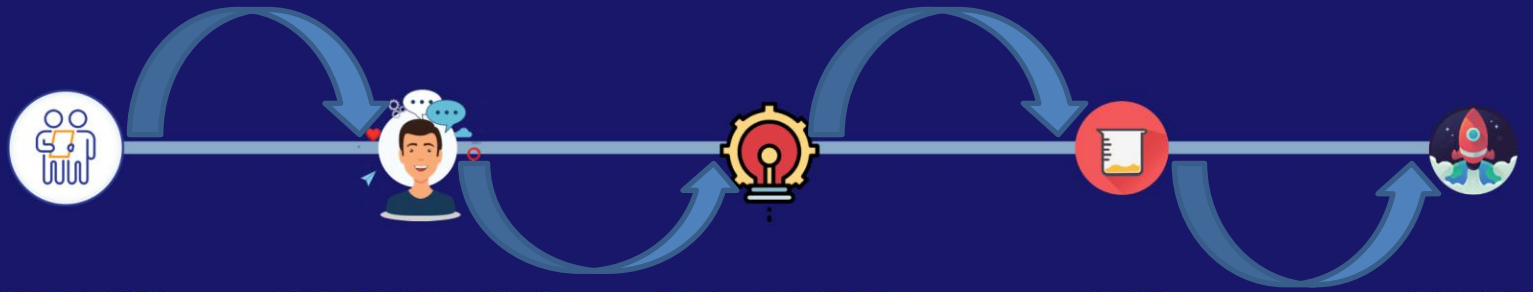
IBPTECH

ACADI-TI ACADEMIA INOVADORA DE TI

Distance Learning
Online classes with in-class experience
TURMA PRESENCIAL
TURMA SEMIPRESENCIAL
TURMA ONLINE

DISTANCE LEARNING DEVELOPMENT

ESCOLA SUPERIOR DE REDES



DEEP DIVING

Through interviews with ESR customers, learning processes pains and possible causes of low use of distance education in government were raised

DESIGN THINKING

Customers, RNP support areas, ESR, and external consultants carried out a co-creation process.

DEVELOPMENT

As prototyped in the design thinking phase, ESR developed an intuitive platform, leveraged by ESR's distance learning methodology.

PILOT

Several pilot groups were held with RNP's client institutions, collecting feedback and adjusting the platform or methodology to ensure that what was thought of by the ESR was being carried out.

GO LIVE!

The ESR e-learning was launched in 2019 during the 2019 RNP Forum.

_Educational Consultancy

Escola Superior de Redes RNP | 3.0

The educational consultancy helps the leadership in elaborating an action plan aligned with the needs of the institution.

Traditional model problems

One day Alice came to a fork in the road and saw a Cheshire cat in a tree.

"*Which road do I take?*" she asked.

His response was a question:

"Where do you want to go?"

"*I don't know,*" Alice answered.

"Then," said the cat,

"it doesn't matter."

- Lewis Carroll, Alice in Wonderland

_Educational Consultancy

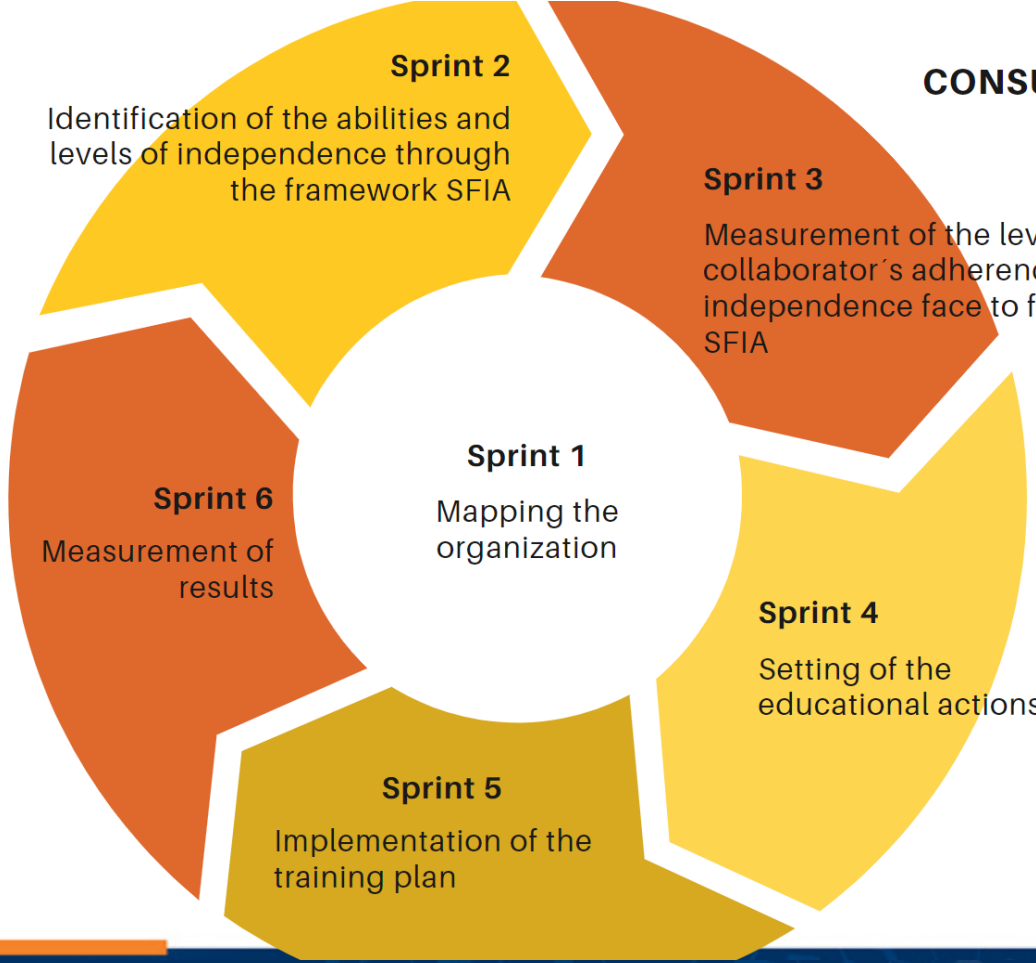
Educational Consultancy is a service that guides managers to the improvement of their teams:

It decreases time spent in planning and accomplishment of plans of professional development

It optimizes resources invested in training

It measures and guarantees more expressive results, always connected to the strategy of the company

EDUCATIONAL CONSULTANCY SPRINTS



Our Differentials

- The union with a global partner added to ESR´s tools and resources are the ideal solution for managers who don´t possess a specific and formal structure of professional development in their IT areas;

- Our partner, **SFIA**, is a non-profit global organization that feeds a method of abilities and skills for a digital world;

- Besides improving the performance of your teams, the use of this framework makes possible comparing your company or organization to players all over the world.

ESCOLA SUPERIOR DE REDES

SFIA
Skills Framework for the Information Age

2020

2020 FORECAST

- 15% DISTANCE LEARNING CLASSES
- 85% IN-CLASS CLASSES
- TOTAL OF 2.500 STUDENTS

- 3 EDUCATIONAL CONSULTING CLIENTS

- ANNUAL BILLING OF €600K

HELLO
FEBRUARY

DANGER,
WILL ROBINSON!

Approximately 60 courses have been adapted to be used online

ESCOLA SUPERIOR DE REDES
RNP

In 2020, ESR was forced to bring forward the Strategic Plan by 2.5 years, executing 100% of the classes published on the ESR calendar remotely.

Distance learning with face-to-face classroom experience

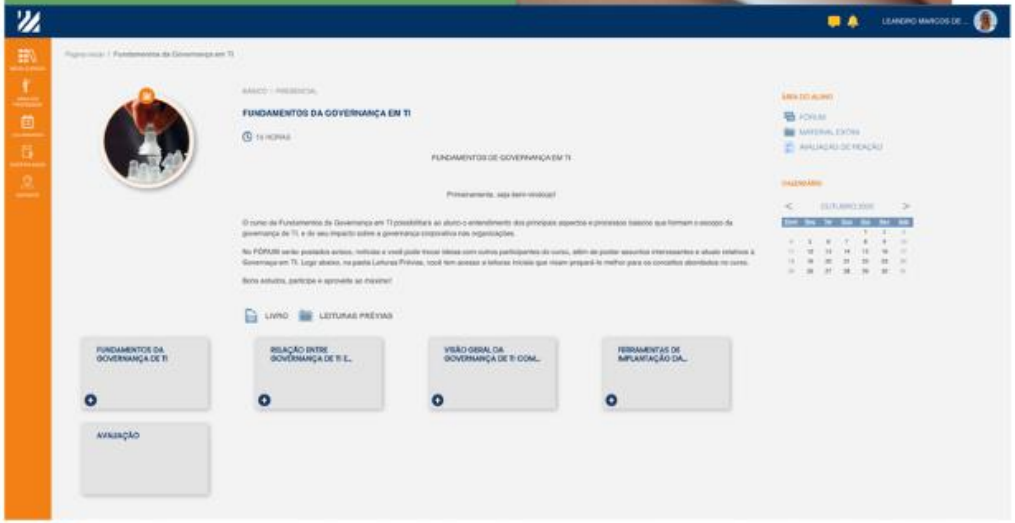
ESR's Distance Learning methodology is based on online meetings with course tutors. This meeting brings the student the experience of being in a classroom, exchanging information with other students and with tutors.

2020's Results

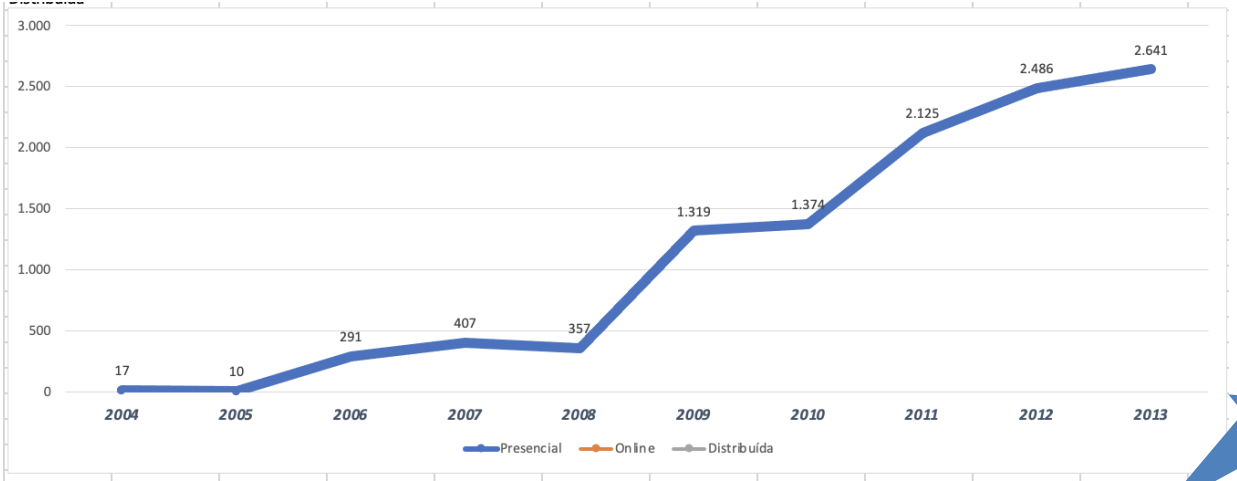
144 classes executed
3,283 students trained

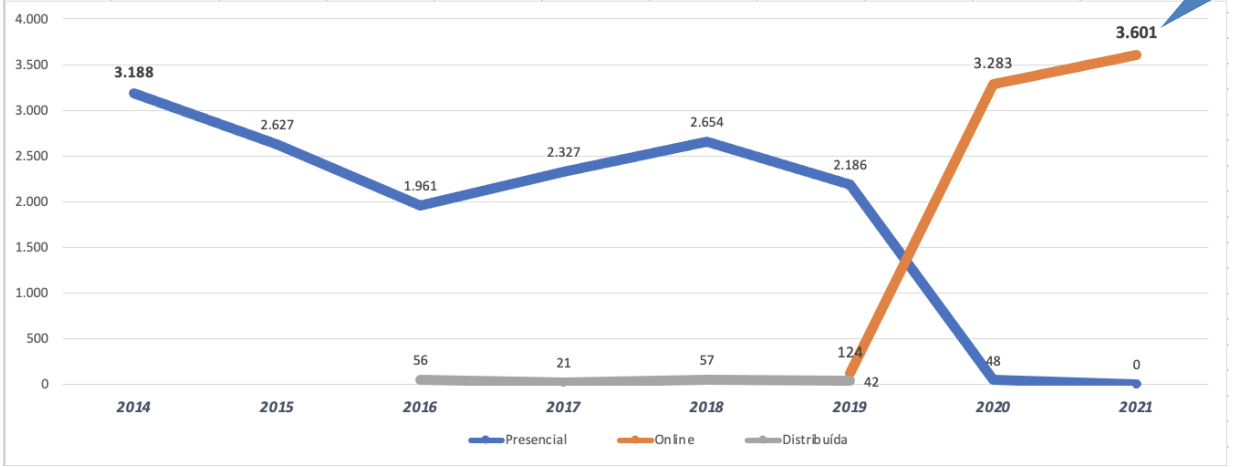
2021's Results

171 classes executed
3,601 students trained



Distance learning





3.601

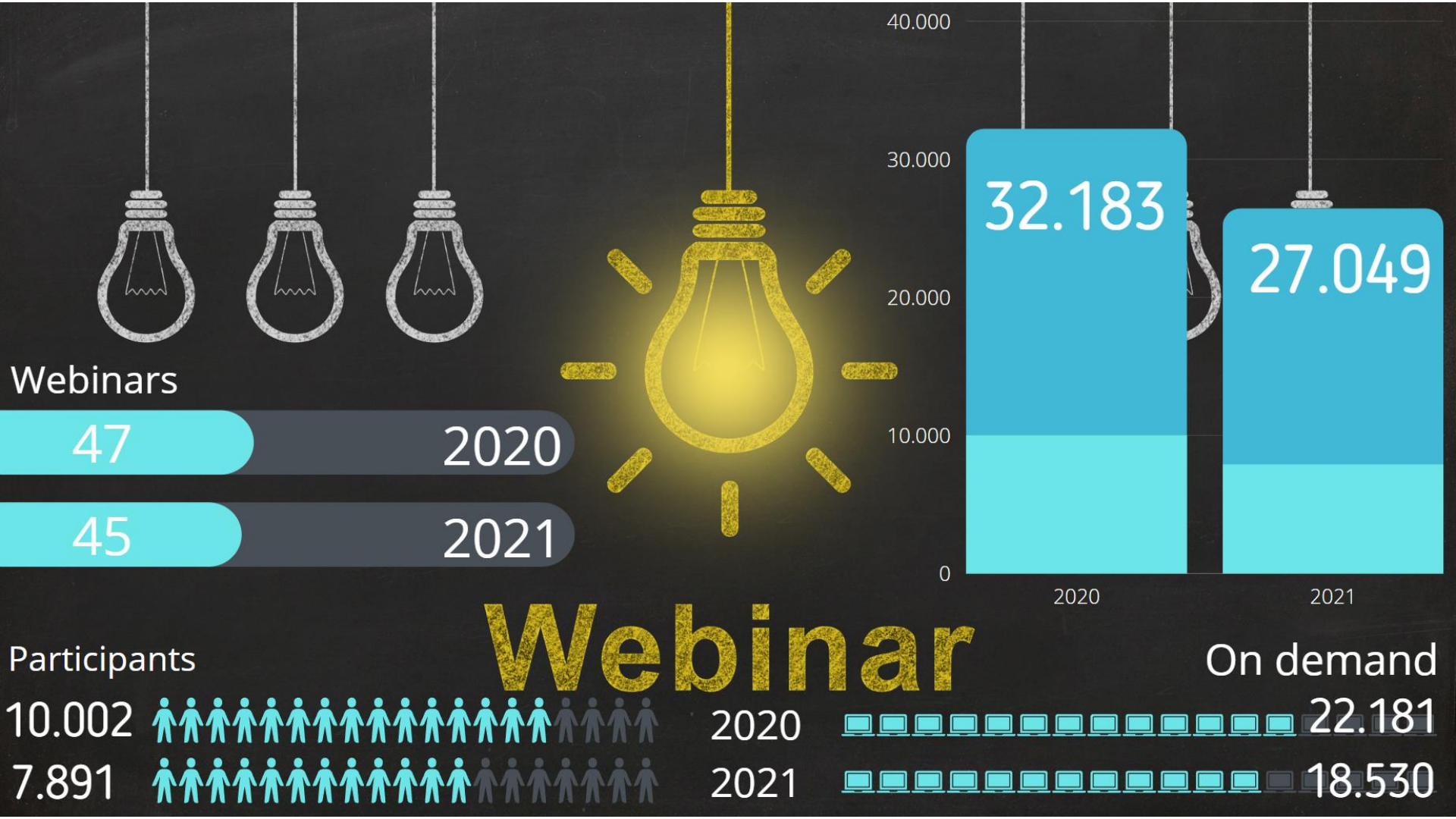
Partnerships

ASCEND EDUCATION

Cloud labs

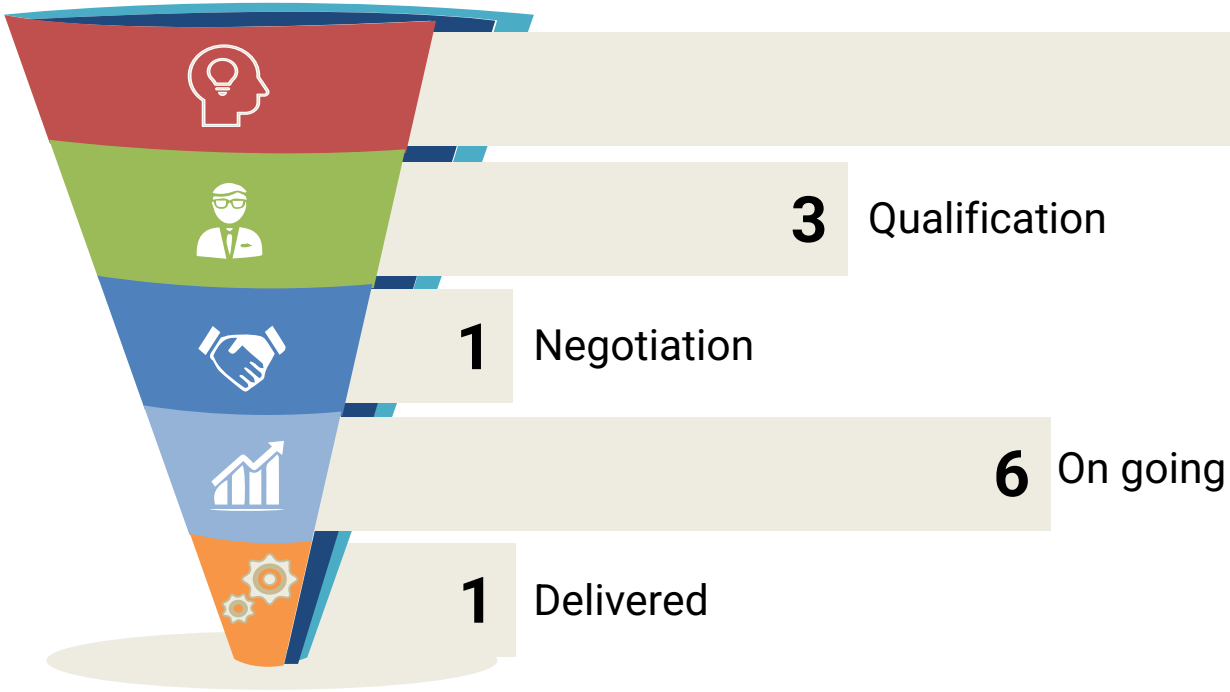
SANS

- American security and privacy institute
- Unique partner in Brazil


40.000
30.000
20.000
10.000
0
32.183
27.049
2020
2021
Webinars
47
2020
45
2021
Webinar
Participants
10.002
2020
7.891
2021
On demand
22.181
18.530

_Educational Consultancy

Hiring funnel



Interested confirmed **41**

3 Qualification

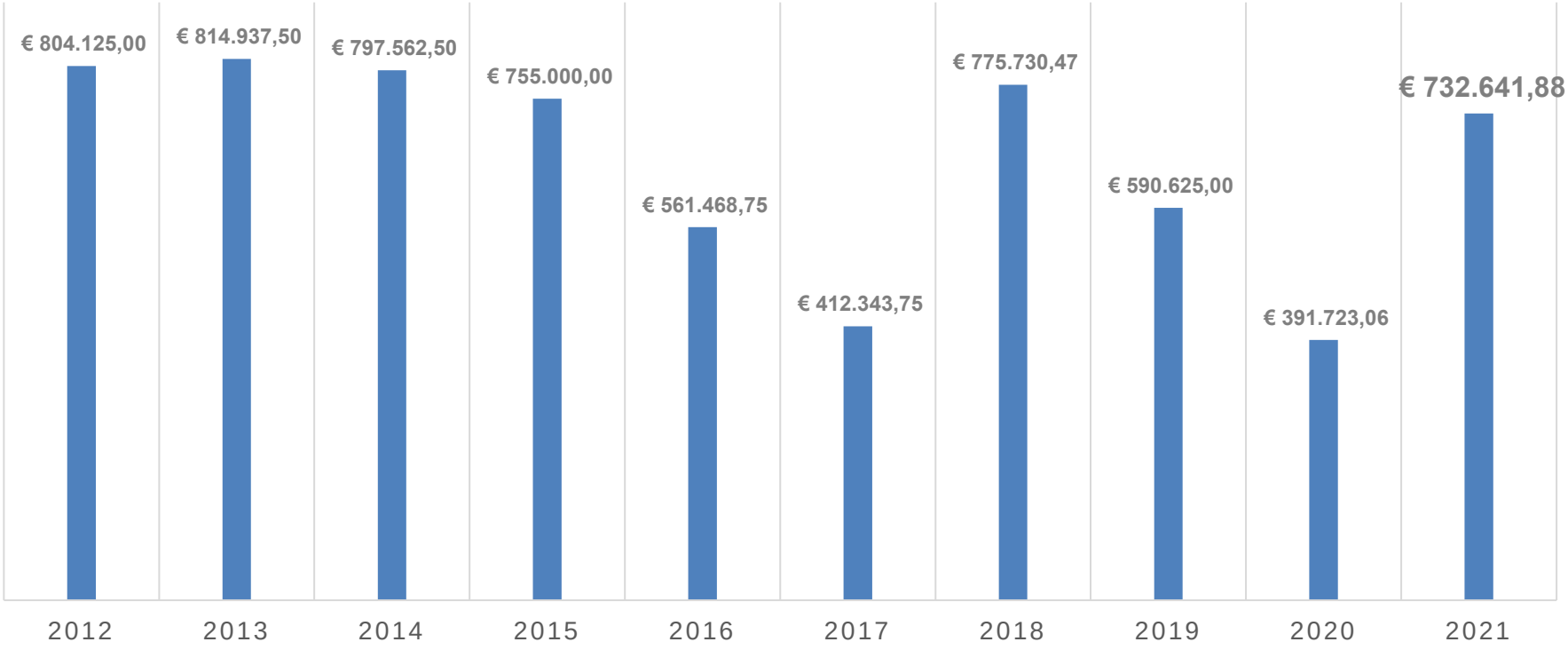
1 Negotiation

6 On going

1 Delivered

Billing

Accumulated billing: € 8.290.713,77



It's always fun to do the impossible. Because that's where there is less competition.

Walt Disney

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escola-superior-de-redes

Thank you!

RNP ORGANIZAÇÃO SOCIAL DO MCTI

MINISTÉRIO DO TURISMO

MINISTÉRIO DA DEFESA

MINISTÉRIO DA SAÚDE

MINISTÉRIO DAS COMUNICAÇÕES

MINISTÉRIO DA EDUCAÇÃO

MINISTÉRIO DA CIÊNCIA, TECNOLOGIA E INOVAÇÕES

PÁTRIA AMADA BRASIL GOVERNO FEDERAL